Receiving, from a request terminal via a user interface of a request terminal, a request for a plurality of first types of services

Identifying one or more service providers in response to the request, each of the one or more service providers providing at least one
first type of service of the plurality of first types of services

Transmitting the request to one or more provider terminals of the one or more service providers

For at least one first type of service provided by the one or more identified service providers, determining a service capacity of
service providers of the at least one first type of service

Transmitting an instruction to the request terminal to present, via the user interface, a notification related to the service capacity
of the service providers of the at least one first type of service

Receiving, from at least one target provider terminal of the one or more provider terminals, at least one response regarding the request, each of the at least one target provider terminal being associated with a target service provider

Transmitting information related to the at least one target provider terminal to the request terminal for presentation on the request
terminal via the user interface.

FIG. 5
Published:

— with international search report (Art. 21(3))
SYSTEMS AND METHODS FOR SERVICE REQUEST PROCESSING

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of Chinese Patent Application No. 201810150936.0, filed on February 13, 2018, the contents of which are hereby incorporated by reference.

TECHNICAL FIELD

[0002] The present disclosure generally relates to service platforms, and in particular, to systems and methods for processing a request for a plurality of types of services.

BACKGROUND

[0003] With the development of Internet technology, online services, such as online to offline (O2O) services, play a more and more significant role in people’s daily lives. For example, a requester may request for a specific service from an online service platform via his/her requester terminal. In response to the request, the online service platform may determine one or more service providers (e.g., one or more drivers) to provide the requested service to the requester. However, the request may not be fulfilled quickly or effectively in some circumstances, for example, when the number of service providers of the requested service is lower than the number of service requests for the requested service. This may result in a long wait time and a poor experience of the requester. One solution to this situation is to provide an option for the requester to request a plurality of acceptable types of services at the same time, such that the service platform may determine a suitable service provider from all service providers of the acceptable types of services, thereby improving the service efficiency and the user experience. Thus, it is desirable to develop effective systems and methods to process a request for a plurality of types of services.
SUMMARY

[0004]  In one aspect of the present disclosure, a system is provided. The system may include at least one storage medium and at least one processor in communication with the at least one storage medium. The storage medium may include a set of instructions for processing service requests received from requester terminals. When executing the set of instructions, the at least one processor may be configured to direct the system to receive a request for a plurality of first types of services from a requester terminal via a user interface of the requester terminal. The at least one processor may be configured to direct the system to identify one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services. The at least one processor may be configured to direct the system to transmit the request to one or more provider terminals of the one or more service providers. The at least one processor may also be configured to direct the system to receive at least one response regarding the request from at least one target provider terminal of the one or more provider terminals. Each of the at least one target provider terminal may be associated with a target service provider of the one or more service providers. The at least one processor may be further configured to direct the system to transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

[0005]  In some embodiments, the information related to the at least one target service provider may include the at least one first type of service provided by the target service provider of the at least one target service provider.

[0006]  In some embodiments, the at least one processor may be further configured to direct the system to transmit a first instruction to the requester terminal to present a first element for requesting the plurality of first types of services via the user interface. The receiving the request for the plurality of first types of services
from the requester terminal may include receiving a selection of the first element from the requester terminal.

[0007] In some embodiments, the at least one processor may be further configured to direct the system to transmit a second instruction to the requester terminal to present an indication element indicating availability of the first element via the user interface.

[0008] In some embodiments, to transmit a first instruction to the requester terminal to present a first element for requesting the plurality of first types of services via the user interface, the at least one processor may be further configured to direct the system to determine a display order of the first element and a second element for requesting a second type of service. The at least one processor may be further configured to direct the system to transmit the first instruction to the requester terminal to present the first element and the second element via the user interface according to the display order.

[0009] In some embodiments, to identify one or more service providers in response to the request, the at least one processor may be further configured to direct the system to select one or more target types of services among the plurality of first types of services. The at least one processor may be further configured to direct the system to identify the one or more service providers, each of the one or more service providers providing at least one target type of service of the one or more target types of services.

[0010] In some embodiments, to identify one or more service providers in response to the request, the at least one processor may be further configured to direct the system to receive location information of a plurality of candidate service providers from a plurality of candidate provider terminals, each of the plurality of candidate service providers providing at least one first type of service of the plurality of first types of services. The location information may be acquired using a location detection mechanism of each of the plurality of candidate provider terminals. The at least one processor may be further configured to direct the system to identify the one
or more service providers based at least in part on the location information of the plurality of candidate service providers among the plurality of candidate service providers.

[0011] In some embodiments, the at least one processor may be further configured to direct the system to determine at least one representative historical feedback from the one or more feedbacks. The at least one processor may be configured to direct the system to determine a service capacity of service providers of the at least one first type of service for at least one first type of service provided by the one or more service providers. The at least one processor may be configured to transmit a third instruction to the requester terminal to present a notification related to the service capacity of the service providers of the at least one first type of service via the user interface.

[0012] In some embodiments, the at least one processor may be further configured to direct the system to receive location information related to at least one service provider associated with the at least one provider terminal from at least one provider terminal of the one or more provider terminals, the location information being acquired using a location detection mechanism of the at least one provider terminal. The at least one processor may be configured to direct the system to transmit a fourth instruction to the requester terminal to present a location of the at least one service provider on a map via the user interface based on the location information of the at least one service provider.

[0013] In some embodiments, the received request is encrypted, and the at least one processor may be further configured to direct the system to decrypt the encrypted request.

[0014] In some embodiments, to decrypt the encrypted request, the at least one processor may be further configured to direct the system to verify authentication information of the requester terminal or a user of the requester terminal before the decrypting.
In some embodiments, the at least one processor may be further configured to direct the system to encrypt the information of the at least one target service provider. The at least one processor may be further configured to direct the system to transmit the encrypted information to the requester terminal.

In some embodiments, the encrypted information may include authentication information of the requester terminal or a user of the requester terminal to authenticate the requester terminal or the user.

In another aspect of the present disclosure, a terminal device is provided. The terminal device may include a user interface, at least one storage medium including a set of instructions for processing service requests, and at least one processor in communication with the at least one storage medium. When executing the instructions, the at least one processor may be configured to direct the terminal device to transmit a request for a plurality of first types of services to a service platform. The at least one processor may be configured to direct the system to receiving information related to at least one target service provider from the service platform, the at least one target service provider providing at least one first type of service of the plurality of first types of services. The at least one processor may be configured to direct the system to presenting the information related to the at least one target service provider via the user interface.

In another aspect of the present disclosure, a method is provided. The method may be implemented on a computing device having at least one processor and at least one computer-readable storage medium including a set of instructions for determining information related to service providers for presentation. The method may include receiving a request for a plurality of first types of services from the requester terminal via a user interface of the requester terminal. The method may include identifying one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services. The method may also include transmitting the request to one or more provider terminals of the one or more service providers.
The method may also include receiving at least one response regarding the request from at least one target provider terminal of the one or more provider terminals, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers. The method may further include transmitting information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface. [0019] In another aspect of the present disclosure, a method is provided. The method may be implemented on a terminal device having a user interface, at least one processor, and at least one storage medium including a set of instructions for processing service requests. The method may include transmitting a request for a plurality of first types of services to a service platform. The method may include receiving the at least one target service provider providing at least one first type of service of the plurality of first types of services from the service platform, information related to at least one target service provider. The method may also include receiving information of at least one target service provider from the service platform, and the received information may include a weight factor of the at least one target service provider. The method may further include presenting the information related to the at least one target service provider via the user interface. [0020] In another aspect of the present disclosure, a system is provided. The system for processing service requests received from requester terminals may include an obtaining module, an identification module, and a transmission module. The obtaining module may be configured to receive a request for a plurality of first types of services from a requester terminal via a user interface of the requester terminal. The identification module may be configured to identify one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services. The transmission module may be configured to transmit the request to one or more provider terminals of the one or more service providers. The obtaining module may be further configured to receive at least one response regarding the
request from at least one target provider terminal of the one or more provider terminals, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers. The transmission module may be further configured to transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

[0021] In yet another aspect of the present disclosure, a terminal device may include a communication module and a presentation module. The transmission module may be further configured to transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface. The communication module may be further configured to receive information related to at least one target service provider from the service platform, the at least one target service provider providing at least one first type of service of the plurality of first types of services. The presentation module may be configured to present the information related to the at least one target service provider via a user interface.

[0022] In yet another aspect of the present disclosure, a non-transitory computer-readable storage medium may embody a computer program product. The computer program product may include instructions configured to cause a computing device to perform a method. The method may include receiving a request for a plurality of first types of services from a requester terminal via a user interface of the requester terminal. The method may include identifying one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services. The method may also include transmitting the request to one or more provider terminals of the one or more service providers. The method may also include receiving at least one response regarding the request from at least one target provider terminal of the one or more provider terminals, each of the at least one target provider terminal being associated with a target service provider of the one or
more service providers. The method may further include transmitting information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

[0023] Additional features will be set forth in part in the description which follows, and in part will become apparent to those skilled in the art upon examination of the following and the accompanying drawings or may be learned by production or operation of the examples. The features of the present disclosure may be realized and attained by practice or use of various aspects of the methodologies, instrumentalities and combinations set forth in the detailed examples discussed below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] The present disclosure is further described in terms of exemplary embodiments. These exemplary embodiments are described in detail with reference to the drawings. These embodiments are non-limiting exemplary embodiments, in which like reference numerals present similar structures throughout the several views of the drawings, and wherein:

[0025] FIG. 1 is a block diagram illustrating an exemplary service system according to some embodiments of the present disclosure;

[0026] FIG. 2 is a schematic diagram illustrating exemplary hardware and software components of an exemplary computing device according to some embodiments of the present disclosure;

[0027] FIG. 3 is a schematic diagram illustrating exemplary hardware and/or software components of an exemplary mobile device according to some embodiments of the present disclosure;

[0028] FIG. 4 is a block diagram illustrating an exemplary processing device according to some embodiments of the present disclosure;
FIG. 5 is a flowchart illustrating an exemplary process for processing a request received from a requester terminal according to some embodiments of the present disclosure;

FIG. 6 is a flowchart illustrating an exemplary process for receiving a request for a plurality of first types of services from a requester terminal according to some embodiments of the present disclosure;

FIG. 7 is a flowchart illustrating an exemplary process for transmitting a first instruction to a requester terminal to present a first element for requesting a plurality of first types of services according to some embodiments of the present disclosure;

FIG. 8 is a block diagram illustrating an exemplary requester terminal according to some embodiments of the present disclosure;

FIG. 9 is a flowchart illustrating an exemplary process for processing a service request according to some embodiments of the present disclosure;

FIG. 10 is a flowchart illustrating an exemplary process for transmitting a request for a plurality of first types of services to a service platform according to some embodiments of the present disclosure;

FIG. 11 is a flowchart illustrating an exemplary process for displaying a first element via a user interface of a requester terminal according to some embodiments of the present disclosure; and

FIGs. 12 to 19 illustrate exemplary user interfaces of a requester terminal according to some embodiments of the present disclosure.

DETAILED DESCRIPTION

The following description is presented to enable any person skilled in the art to make and use the present disclosure, and is provided in the context of a particular application and its requirements. Various modifications to the disclosed embodiments will be readily apparent to those skilled in the art, and the general principles defined herein may be applied to other embodiments and applications without departing from the spirit and scope of the present disclosure. Thus, the
present disclosure is not limited to the embodiments shown, but is to be accorded the widest scope consistent with the claims.

[0038] The terminology used herein is to describe particular example embodiments only and is not intended to be limiting. As used herein, the singular forms "a," "an," and "the" may be intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprise," "comprises," and/or "comprising," "include," "includes," and/or "including," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

[0039] These and other features, and characteristics of the present disclosure, as well as the methods of operation and functions of the related elements of structure and the combination of parts and economies of manufacture, may become more apparent upon consideration of the following description with reference to the accompanying drawings, all of which form a part of this disclosure. It is to be expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended to limit the scope of the present disclosure. It is understood that the drawings are not to scale.

[0040] The flowcharts used in the present disclosure illustrate operations that systems implement according to some embodiments in the present disclosure. It is to be expressly understood, the operations of the flowchart may be implemented not in order. Conversely, the operations may be implemented in inverted order, or simultaneously. Moreover, one or more other operations may be added to the flowcharts. One or more operations may be removed from the flowcharts.

[0041] Moreover, while the system and method in the present disclosure is described primarily in regard to distributing a request for a transportation service, it should also be understood that the present disclosure is not intended to be limiting. The system or method of the present disclosure may be applied to any other kind of
services. For example, the system or method of the present disclosure may be applied to transportation systems of different environments including land, ocean, aerospace, or the like, or any combination thereof. The vehicle of the transportation systems may include a taxi, a private car, a carpool, a bus, a train, a bullet train, a high speed rail, a subway, a vessel, an aircraft, a spaceship, a hot-air balloon, a driverless vehicle, or the like, or any combination thereof. The transportation system may also include any transportation system for management and/or distribution, for example, a system for sending and/or receiving an express. The application of the system or method of the present disclosure may be implemented on a user device and include a webpage, a plug-in of a browser, a client terminal, a custom system, an internal analysis system, an artificial intelligence robot, or the like, or any combination thereof.

[0042] The term "passenger," "requester," "service requester," "customer" and "user" in the present disclosure are used interchangeably to refer to an individual, an entity, or a tool that may request or order a service. Also, the term "driver," "provider," and "service provider" in the present disclosure are used interchangeably to refer to an individual, an entity, or a tool that may provide a service or facilitate the providing of the service.

[0043] The term "service request," "request for a service," "requests," and "order" in the present disclosure are used interchangeably to refer to a request that may be initiated by a passenger, a service requester, a customer, a driver, a provider, a service provider, or the like, or any combination thereof. The service request may be accepted by any one of a passenger, a service requester, a customer, a driver, a provider, or a service provider. The service request may be chargeable or free.

[0044] The term "service provider terminal," "provider terminal," and "driver terminal" in the present disclosure are used interchangeably to refer to a mobile terminal that is used by a service provider to provide a service or facilitate the providing of the service. The term "service requester terminal," "requester terminal," and "passenger terminal" in the present disclosure are used interchangeably to refer to a
mobile terminal that is used by a service requester to request or order a service.

[0045] The positioning technology used in the present disclosure may be based on a global positioning system (GPS), a global navigation satellite system (GLONASS), a compass navigation system (COMPASS), a Galileo positioning system, a quasi-zenith satellite system (QZSS), a wireless fidelity (WiFi) positioning technology, or the like, or any combination thereof. One or more of the above positioning systems may be used interchangeably in the present disclosure.

[0046] An aspect of the present disclosure relates to systems and methods for an online service system to process a request for a plurality of first types of services. The request may be received from a requester terminal via a user interface of the requester terminal. The systems and methods may identify one or more service providers providing at least one first type of service of the plurality of first types of services in response to the request. The systems and methods may transmit the request to one or more provider terminals of the one or more service providers. After receiving a response regarding the request from at least one target provider terminal associated with at least one target service provider of the one or more service providers, the systems and methods may transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

[0047] In the present disclosure, the online service system provides an option for a requester of the requester terminal to request various types of services simultaneously. The systems and methods may determine the one or more service providers by taking, for example, location information of service providers of the first types of services, service capacities of the service providers of the first types of services, a user preference of the requester, or the like, or any combination thereof. In addition, a user interface for requesting the plurality of types of services is provided in the present disclosure. The user interface may include a first element for requesting the first types of services, an indication element indicating availability of the first element, and one or more second elements each of which is used to
request a second type of service, or the like, or any combination thereof. The first
and second elements may be presented in a specific display order, wherein a more
recommended element of the two elements is presented in a more visible and/or
accessible way such that the more recommended element is more likely to be
chosen by the requester. The display order may be associated with, for example,
the usage frequency of the first and second elements, a user preference of the
requester, a scenario in which the request is transmitted to the service system, or the
like, or any combination thereof.

[0048] The systems and methods may allow use of information of multiple
dimensions to determine or predict suitability of pairing a service provider with a
service requester, and also to determine an effective user interface. Information of
multiple dimensions may include information from, e.g., different times (e.g.,
historical information, real time information), different sources (information from
different users including service requesters, service providers, etc.) to improve
reliability or accuracy of the determination or prediction.

[0049] Moreover, in some embodiments of the present disclosure, the systems
and methods may employ at least one of techniques including embedding
authentication information in the request to the service system and/or in the
information to a requester terminal, encrypting data for transmission, decrypting
received data if the embedded authentication information is verified, or the like, or a
combination thereof. This may allow secured communication and/or accurate
transmission of specific data to specific requester terminals and/or users (service
requesters, service providers, etc.).

[0050] One of the problems solved by the systems and methods of the present
disclosure is the big data problem and its real time application faced by an online
service system including, for example, an ineffective use of data for processing
service requests and determining service providers. Further problems solved by
the systems and methods of the present disclosure include secured communication
in real time between a large number of user devices (e.g., provider terminals,
requester terminals) and/or accurate transmission of specific data to specific provider
terminals and/or specific requester terminals. These problems raise in the online
service system appeared in the post-Internet era, and the present disclosure
provides solutions to these problems in a technical manner.

[0051] FIG. 1 is a block diagram illustrating an exemplary service system according
to some embodiments of the present disclosure. A service system 100 may be
configured to provide a plurality of types of services. The plurality of types of
services may include any product, such as but not limited to food, medicine,
commodity, chemical product, electrical appliance, clothing, car, housing, luxury, a
servicing product, a financial product, a knowledge product, an Internet product. In
some embodiments, the plurality of types of services may include an online to offline
(020) service. Exemplary 020 services may include a transportation service (e.g.,
a taxi-hailing service, a chauffeur service, an express car service, a luxury car
service, a premium car, a carpool service, a bus service, a driver hire service, and a
shuttle service), a meal delivery service, a delivery service, a shopping service, or
the like, or any combination thereof. For example, the service system 100 may be
an online transportation service platform providing transportation services, an online
delivery service platform providing meal delivery services, an online shopping
service platform providing shopping services, etc.

[0052] For illustration purposes, the following description regarding the service
system 100 is provided with reference to an online transportation service system.
As illustrated in FIG. 1, the service system 100 may include a server 110, a network
120, a requester terminal 130 (also referred to as a first terminal herein), a provider
terminal 140 (also referred to as a second terminal herein), a vehicle 150, a storage
device 160, and a navigation system 170. In some embodiments, the server 110
may be a single server or a server group. The server group may be centralized, or
distributed (e.g., the server 110 may be a distributed system). In some
embodiments, the server 110 may be local or remote. For example, the server 110
may access information and/or data stored in the requester terminal 130, the
provider terminal 140, and/or the storage device 160 via the network 120. As another example, the server 110 may be directly connected to the requester terminal 130, the provider terminal 140, and/or the storage device 160 to access stored information and/or data. In some embodiments, the server 110 may be implemented on a cloud platform. Merely by way of example, the cloud platform may include a private cloud, a public cloud, a hybrid cloud, a community cloud, a distributed cloud, an inter-cloud, a multi-cloud, or the like, or any combination thereof. In some embodiments, the server 110 may be implemented on a computing device 200 having one or more components illustrated in FIG. 2 in the present disclosure.

[0053] In some embodiments, the server 110 may include a processing device 112. The processing device 112 may process information and/or data related to the service system 100 to perform one or more functions described in the present disclosure. For example, the processing device 112 may receive a request for a plurality of types of services from the requester terminal 130 via a user interface of the requester terminal 130. The processing device 112 may determine a service provider that provides one of the plurality of services in response to the request. In some embodiments, the processing device 112 may include one or more processing devices (e.g., single-core processing device(s) or multi-core processor(s)). Merely by way of example, the processing device 112 may include a central processing unit (CPU), an application-specific integrated circuit (ASIC), an application-specific instruction-set processor (ASIP), a graphics processing unit (GPU), a physics processing unit (PPU), a digital signal processor (DSP), a field-programmable gate array (FPGA), a programmable logic device (PLD), a controller, a microcontroller unit, a reduced instruction-set computer (RISC), a microprocessor, or the like, or any combination thereof.

[0054] The network 120 may facilitate exchange of information and/or data. In some embodiments, the network 120 may facilitate a real-time exchange of information and/or data. In some embodiments, one or more components of the
service system 100 (e.g., the server 110, the requester terminal 130, the provider terminal 140, the vehicle 150, the storage device 160, and the navigation system 170) may transmit information and/or data to other component(s) of the service system 100 via the network 120. For example, the server 110 may receive a service request from the requester terminal 130 via the network 120. In some embodiments, the network 120 may be any type of wired or wireless network, or combination thereof. Merely by way of example, the network 120 may include a cable network, a wireline network, an optical fiber network, a telecommunications network, an intranet, an Internet, a local area network (LAN), a wide area network (WAN), a wireless local area network (WLAN), a metropolitan area network (MAN), a wide area network (WAN), a public telephone switched network (PSTN), a Bluetooth network, a ZigBee network, a near field communication (NFC) network, or the like, or any combination thereof. In some embodiments, the network 120 may include one or more network access points. For example, the network 120 may include wired or wireless network access points such as base stations and/or internet exchange points 120-1, 120-2, ... , through which one or more components of the service system 100 may be connected to the network 120 to exchange data and/or information.

[0055] In some embodiments, a service requester may be an owner of the requester terminal 130. In some embodiments, the owner of the requester terminal 130 may be someone other than the service requester. For example, an owner A of the requester terminal 130 may use the requester terminal 130 to transmit a service request for a service requester B or receive a service confirmation and/or information or instructions from the server 110. In some embodiments, a service provider may be a user of the provider terminal 140. In some embodiments, the user of the provider terminal 140 may be someone other than the service provider. For example, a user C of the provider terminal 140 may use the provider terminal 140 to receive a service request for a service provider D, and/or information or instructions from the server 110. In some embodiments, “requester,” “service requester” and
"requester terminal" may be used interchangeably, and "provider," "service provider," and "service provider terminal" may be used interchangeably. In some embodiments, the service provider terminal may be associated with one or more service providers (e.g., a night-shift service provider, or a day-shift service provider).

[0056] In some embodiments, the requester terminal 130 may include a mobile device 130-1, a tablet computer 130-2, a laptop computer 130-3, a built-in device in a vehicle 130-4, or the like, or any combination thereof. In some embodiments, the mobile device 130-1 may include a smart home device, a wearable device, a smart mobile device, a virtual reality device, an augmented reality device, or the like, or any combination thereof. In some embodiments, the smart home device may include a smart lighting device, a control device of an intelligent electrical apparatus, a smart monitoring device, a smart television, a smart video camera, an interphone, or the like, or any combination thereof. In some embodiments, the wearable device may include a smart bracelet, a smart footgear, smart glasses, a smart helmet, a smart watch, smart clothing, a smart backpack, a smart accessory, or the like, or any combination thereof. In some embodiments, the smart mobile device may include a smartphone, a personal digital assistant (PDA), a gaming device, a navigation device, a point of sale (POS) device, or the like, or any combination thereof. In some embodiments, the virtual reality device and/or the augmented reality device may include a virtual reality helmet, a virtual reality glass, a virtual reality patch, an augmented reality helmet, augmented reality glasses, an augmented reality patch, or the like, or any combination thereof. For example, the virtual reality device and/or the augmented reality device may include a Google™ Glass, an Oculus Rift, a HoloLens, a Gear VR, etc. In some embodiments, the built-in device in the vehicle 130-4 may include an onboard computer, an onboard television, etc. In some embodiments, the requester terminal 130 may be a device with positioning technology for locating the position of the service requester and/or the requester terminal 130.

[0057] The provider terminal 140 may include a plurality of service provider
terminals 140-1, 140-2, ..., 140-n. In some embodiments, the provider terminal 140 may be similar to, or the same device as the requester terminal 130. In some embodiments, the provider terminal 140 may be customized to be able to implement the services. In some embodiments, the provider terminal 140 may be a device with positioning technology for locating the service provider, the provider terminal 140, and/or a vehicle 150 associated with the provider terminal 140. In some embodiments, the requester terminal 130 and/or the provider terminal 140 may communicate with another positioning device to determine the position of the service requester, the requester terminal 130, the service provider, and/or the provider terminal 140. In some embodiments, the requester terminal 130 and/or the provider terminal 140 may transmit the positioning information to the server 110 periodically or in real time. In some embodiments, the provider terminal 140 may also transmit the availability status to the server 110 periodically or in real time. The availability status may indicate whether a vehicle 150 associated with the provider terminal 140 is available to carry a passenger. For example, the requester terminal 130 and/or the provider terminal 140 may transmit the positioning information and the availability status to the server 110 every thirty minutes. As another example, the requester terminal 130 and/or the provider terminal 140 may transmit the positioning information and the availability status to the server 110 each time the user logs into the mobile application associated with the online on-demand transportation service.

In some embodiments, the provider terminal 140 may correspond to one or more vehicles 150. The vehicles 150 may carry the service requester and travel to the destination. The vehicles 150 may include a plurality of vehicles 150-1, 150-2, ..., 150-n. One vehicle may correspond to one type of service (e.g., a taxi-hailing service, a chauffeur service, an express car service, a carpool service, a bus service, a driver hire service, or a shuttle service).

[0058] The storage device 160 may store data and/or instructions. In some embodiments, the storage device 160 may store data obtained from the requester terminal 130 and/or the provider terminal 140. In some embodiments, the storage
device 160 may store data and/or instructions that the server 110 may execute or use to perform exemplary methods described in the present disclosure. In some embodiments, storage device 160 may include a mass storage, removable storage, a volatile read-and-write memory, a read-only memory (ROM), or the like, or any combination thereof. Exemplary mass storage may include a magnetic disk, an optical disk, solid-state drives, etc. Exemplary removable storage may include a flash drive, a floppy disk, an optical disk, a memory card, a zip disk, a magnetic tape, etc. Exemplary volatile read-and-write memory may include a random-access memory (RAM). Exemplary RAM may include a dynamic RAM (DRAM), a double date rate synchronous dynamic RAM (DDR SDRAM), a static RAM (SRAM), a thyristor RAM (T-RAM), and a zero-capacitor RAM (Z-RAM), etc. Exemplary ROM may include a mask ROM (MROM), a programmable ROM (PROM), an erasable programmable ROM (EPROM), an electrically-erasable programmable ROM (EEPROM), a compact disk ROM (CD-ROM), and a digital versatile disk ROM, etc.

In some embodiments, the storage device 160 may be implemented on a cloud platform. Merely by way of example, the cloud platform may include a private cloud, a public cloud, a hybrid cloud, a community cloud, a distributed cloud, an inter-cloud, a multi-cloud, or the like, or any combination thereof.

[0059] In some embodiments, the storage device 160 may be connected to the network 120 to communicate with one or more components of the service system 100 (e.g., the server 110, the requester terminal 130, or the provider terminal 140). One or more components of the service system 100 may access the data or instructions stored in the storage device 160 via the network 120. In some embodiments, the storage device 160 may be directly connected to or communicate with one or more components of the service system 100 (e.g., the server 110, the requester terminal 130, the provider terminal 140). In some embodiments, the storage device 160 may be part of the server 110.

[0060] The navigation system 170 may determine information associated with an object, for example, one or more of the requester terminal 130, the provider terminal
140, the vehicle 150, etc. In some embodiments, the navigation system 170 may be a global positioning system (GPS), a global navigation satellite system (GLONASS), a compass navigation system (COMPASS), a BeiDou navigation satellite system, a Galileo positioning system, a quasi-zenith satellite system (QZSS), etc. The information may include a location, an elevation, a velocity, or an acceleration of the object, or a current time. The navigation system 170 may include one or more satellites, for example, a satellite 170-1, a satellite 170-2, and a satellite 170-3. The satellites 170-1 through 170-3 may determine the information mentioned above independently or jointly. The navigation system 170 (e.g., a satellite navigation system) may transmit the information mentioned above to the network 120, the requester terminal 130, the provider terminal 140, or the vehicle 150 via wireless connections.

[0061] In some embodiments, one or more components of the service system 100 (e.g., the server 110, the requester terminal 130, the provider terminal 140) may have permissions to access the storage device 160. In some embodiments, one or more components of the service system 100 may read and/or modify information related to the service requester, service provider, and/or the public when one or more conditions are met. For example, the server 110 may read and/or modify one or more service requesters’ information after a service is completed. As another example, the server 110 may read and/or modify one or more service providers’ information after a service is completed.

[0062] In some embodiments, information exchanging of one or more components of the service system 100 may be initiated by way of requesting a service. The object of the service request may be any product. In some embodiments, the product may include food, medicine, commodity, chemical product, electrical appliance, clothing, car, housing, luxury, or the like, or any combination thereof. In some other embodiments, the product may include a servicing product, a financial product, a knowledge product, an Internet product, or the like, or any combination thereof. The Internet product may include an individual host product, a web
product, a mobile Internet product, a commercial host product, an embedded product, or the like, or any combination thereof. The mobile internet product may be used in software of a mobile terminal, a program, a system, or the like, or any combination thereof. The mobile terminal may include a tablet computer, a laptop computer, a mobile phone, a personal digital assistant (PDA), a smart watch, a point of sale (POS) device, an onboard computer, an onboard television, a wearable device, or the like, or any combination thereof. For example, the product may be any software and/or application used on the computer or mobile phone. The software and/or application may relate to socializing, shopping, transporting, entertainment, learning, investment, or the like, or any combination thereof. In some embodiments, the software and/or application related to transporting may include a traveling software and/or application, a vehicle scheduling software and/or application, a mapping software and/or application, etc. In the vehicle scheduling software and/or application, the vehicle may include a horse, a carriage, a rickshaw (e.g., a wheelbarrow, a bike, a tricycle, etc.), a car (e.g., a taxi, a bus, a private car, etc.), a train, a subway, a vessel, an aircraft (e.g., an airplane, a helicopter, a space shuttle, a rocket, a hot-air balloon, etc.), or the like, or any combination thereof.

[0063] One of ordinary skill in the art would understand that when an element (or component) of the service system 100 performs, the element may perform through electrical signals and/or electromagnetic signals. For example, when a requester terminal 130 transmits out a service request to the server 110, a processor of the requester terminal 130 may generate an electrical signal encoding the request. The processor of the requester terminal 130 may then transmit the electrical signal to an output port. If the requester terminal 130 communicates with the server 110 via a wired network, the output port may be physically connected to a cable, which further may transmit the electrical signal to an input port of the server 110. If the requester terminal 130 communicates with the server 110 via a wireless network, the output port of the requester terminal 130 may be one or more antennas, which convert the electrical signal to electromagnetic signal. Similarly, a provider terminal 140 may
receive an instruction and/or service request from the server 110 via electrical signal or electromagnet signals. Within an electronic device, such as the requester terminal 130, the provider terminal 140, and/or the server 110, when a processor thereof processes an instruction, transmits out an instruction, and/or performs an action, the instruction and/or action is conducted via electrical signals. For example, when the processor retrieves or saves data from a storage medium, it may transmit out electrical signals to a read/write device of the storage medium, which may read or write structured data in the storage medium. The structured data may be transmitted to the processor in the form of electrical signals via a bus of the electronic device. Here, an electrical signal may refer to one electrical signal, a series of electrical signals, and/or a plurality of discrete electrical signals.

[0064] FIG. 2 is a schematic diagram illustrating exemplary hardware and software components of a computing device 200 according to some embodiments of the present disclosure.

[0065] In some embodiments, the computing device 200 may be a special purpose computer in some embodiments. The computing device 200 may be used to implement the service system 100 for the present disclosure. The computing device 200 may implement any component of the service system 100 as described herein. In some embodiments, the server 110, the requester terminal 130, and/or the provider terminal 140 may be implemented on the computing device 200. For example, the processing device 112 may be implemented on the computing device 200 and configured to perform functions of the processing device 112 disclosed in this disclosure. In FIGs. 1-2, only one such computer device is shown purely for convenience purposes. One of ordinary skill in the art would understood at the time of filing of this application that the computer functions relating to the service system 100 as described herein may be implemented in a distributed fashion on a number of similar platforms, to distribute the processing load.

[0066] The computing device 200, for example, may include COM ports 250 connected to and from a network connected thereto to facilitate data
communications. The computing device 200 may also include a processor 220, in the form of one or more processors, for executing program instructions. For example, the processor 220 may include interface circuits and processing circuits therein. The interface circuits may be configured to receive electronic signals from a bus 210, wherein the electronic signals encode structured data and/or instructions for the processing circuits to process. The processing circuits may conduct logic calculations, and then determine a conclusion, a result, and/or an instruction encoded as electronic signals. Then the interface circuits may send out the electronic signals from the processing circuits via a bus 210.

[0067] The exemplary computer platform may include a program storage and a data storage of different forms, for example, a disk 270, and a read only memory (ROM) 230, or a random access memory (RAM) 240, for various data files to be processed and/or transmitted by the computer. The exemplary computer platform may also include program instructions stored in the ROM 230, the RAM 240, and/or another type of non-transitory storage medium to be executed by the processor 220. The methods and/or processes of the present disclosure may be implemented as the program instructions. The computing device 200 may also include an I/O component 260, supporting input/output between the computer and other components therein such as a user interface element (not shown in FIG. 2). The computing device 200 may also receive programming and data via network communications.

[0068] Merely for illustration, only one processor 220 is described in the computing device 200. However, it should be noted that the computing device 200 in the present disclosure may also include multiple processors, thus operations and/or method steps that are performed by one processor 220 as described in the present disclosure may also be jointly or separately performed by the multiple CPUs/processors. For example, if in the present disclosure the processor 220 of the computing device 200 executes both step A and step B, it should be understood that step A and step B may also be performed by two different processors jointly or
separately in the computing device 200 (e.g., the first processor executes step A and
the second processor executes step B, or the first and second processors jointly
execute steps A and B).

[0069] FIG. 3 is a schematic diagram illustrating exemplary hardware and/or
software components of an exemplary mobile device 300 according to some
embodiments of the present disclosure. In some embodiments, the mobile device
300 may implement any component of the service system 100 as described herein.
For example, the requester terminal 130 and/or the provider terminal 140 may be
implemented on the mobile device 300, respectively.

[0070] As illustrated in FIG. 3, the mobile device 300 may include a communication
platform 310, a display 320, a graphics processing unit (GPU) 330, a central
processing unit (CPU) 340, an I/O 350, a memory 360, and a storage 390. In some
embodiments, any other suitable component, including but not limited to a system
bus or a controller (not shown), may also be included in the mobile device 300. In
some embodiments, a mobile operating system 370 (e.g., iOS™, Android™,
Windows Phone™, etc.) and one or more applications 380 may be loaded into the
memory 360 from the storage 390 in order to be executed by the CPU 340. The
applications 380 may include a browser or any other suitable mobile apps for
receiving and rendering information relating to the service system 100. User
interactions with the information stream may be achieved via the I/O 350 and
provided to the processing device 112 and/or other components of the service
system 100 via the network 120.

[0071] To implement various modules, units, and their functionalities described in
the present disclosure, computer hardware platforms may be used as the hardware
platform(s) for one or more of the elements described herein. A computer with user
interface elements may be used to implement a personal computer (PC) or any other
type of work station or terminal device. A computer may also act as a server if
appropriately programmed.

[0072] FIG. 4 is a block diagram illustrating an exemplary processing device
according to some embodiments of the present disclosure. The processing device 112 may include an obtaining module 401, an identification module 402, a transmission module 403, and a determination module 404. The modules may be hardware circuits of all or part of the processing device 112. The modules may also be implemented as an application or set of instructions read and executed by the processing device 112. Further, the modules may be any combination of the hardware circuits and the application/instructions. For example, the modules may be the part of the processing device 112 when the processing device 112 is executing the application/set of instructions.

[0073] The obtaining module 401 may be configured to obtain and/or receive information related to the service system 100. Exemplary information obtained and/or received by the obtaining module 401 may include a request for a plurality of first types of services from a requester terminal, a response regarding the request from a target provider terminal, location information related to one or more service requesters and/or service providers. More descriptions regarding the information obtained and/or received by the obtaining module 401 may be found elsewhere in the present disclosure. See, e.g., FIG. 5 and the relevant descriptions thereof.

[0074] The identification module 402 may be configured to identify one or more service providers in response to the request, wherein each service provider provides at least one first type of service of the first types of services. In some embodiments, the identification module 402 may identify the one or more service providers based on location information of the service provider(s). In some embodiments, the processing device 112 may select one or more target types of services among the plurality of first types of services. The processing device 112 may further identify one or more service providers, each of which provides at least one target type of service of the one or more target types of services. More descriptions regarding the identification of the service providers may be found elsewhere in the present disclosure. See, e.g., operation 520 and the relevant descriptions thereof.

[0075] The transmission module 403 may be configured to enable data
communications between the processing device 112 and one or more other components of the service system 100. For example, the transmission module 403 may transmit the request to one or more provider terminals of the one or more identified service providers. As another example, the transmission module 403 may transmit one or more instructions (e.g., a first instruction, a second instruction, and a third instruction) and/or information (e.g., information related to at least one target service provider) to the requester terminal. More descriptions regarding the transmission of the data communications may be found elsewhere in the present disclosure. See, e.g., FIGs. 5 to 7 and relevant descriptions thereof.

[0076] The determination module 404 may be configured to determine a service capacity of service providers of a type of service. More descriptions regarding the determination of the service capacity may be found elsewhere in the present disclosure. See, e.g., operation 540 and relevant descriptions thereof. Additionally or alternatively, the determination module 404 may be configured to determine a display order of a plurality of elements to be displayed on a user terminal. For example, the determination module 404 may determine a display order of a first element for requesting the plurality of first types of services and a second element for requesting a second type of service. More descriptions regarding the determination of the display order may be found elsewhere in the present disclosure. See, e.g., operation 710 and relevant descriptions thereof.

[0077] It should be noted that the above description of the processing device 112 is provided for the purposes of illustration, and is not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. In some embodiments, any module mentioned above may be divided into two or more units. In some embodiments, one or more the modules mentioned above may be omitted. For example, the identification module 402 may be omitted. In some embodiments, the processing device 112 may further include
one or more additional modules. For example, the processing device 112 may further include an encrypt module configured to encrypt information and/or a decrypt module configured to decrypt information. As another example, the processing device 112 may further include a processing module configured to determine a service capacity of service providers of a type of service.

[0078] FIG. 5 is a flowchart illustrating an exemplary process for processing a request received from a requester terminal according to some embodiments of the present disclosure. In some embodiments, process 500 may be executed by the service system 100. For example, the process 500 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In some embodiments, the processing device 112 (e.g., the processor 220 of the computing device 200, the CPU 340 of the mobile device 300, and/or one or more modules illustrated in FIG. 4) may execute the set of instructions and may accordingly be directed to perform the process 500 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that connects service providers and requesters through the Internet.

[0079] In 510, the processing device 112 (e.g., the obtaining module 401) (e.g., the interface circuits of the processor 220) may receive a request for a plurality of first types of services from a requester terminal (e.g., the requester terminal 130) via a user interface of the requester terminal.

[0080] In some embodiments, the service system 100 may provide a plurality of types of services as described elsewhere in this disclosure (e.g., FIG. 1 and the relevant descriptions), such as but not limited to food, medicine, commodity, chemical product, electrical appliance, clothing, car, housing, luxury, a servicing product, a financial product, a knowledge product, an internet product. For the convenience of users of the service system 100, a portion or all of the types of services provided by the service system 100 may be requested simultaneously. As used herein, the types of services that can be requested simultaneously are referred
to as the first types of services.

For example, the service system 100 may be a transportation service system providing various types of transportation services, such as a taxi-hailing service, an express car service, a carpool service, a luxury car service, a premium car service, a chauffeur service, a bus service, a driver hire service, a shuttle service, or the like. A passenger may transmit a request to ask for the various types of transportation services simultaneously. The service system 100 may transmit the request to different drivers of the various types of transportation services at the same time. This may ensure that the request can be fulfilled as soon as possible, especially when there are insufficient drivers (e.g., less than a predetermined number of drivers) in the service system 100.

In some embodiments, the request for the first types of services may be inputted by a user of the requester terminal (also referred to as a requester herein) via the user interface of the requester terminal and be transmitted to the processing device 112 by the requester terminal. In some embodiments, the requester may input the request via, for example, a typing mechanism (e.g., a keyboard), a voice input mechanism (e.g., a microphone), a gesture input mechanism (e.g., a touch screen) of the requester terminal, or the like, or any combination thereof. For example, the requester terminal may present a user interface for requesting services (e.g., a user interface 1200 as illustrated in FIGs. 12 to 15). The user interface may present a first element for requesting the first types of services simultaneously. Optionally, the user interface may also present a second element for requesting a second type of service and/or an indication element indicating the availability of the first element. The requester may select the first element to request the first types of services. In some embodiments, one or more operations of process 600 and/or process 700 may be performed to achieve operation 510.

In some embodiments, the request may include one or more service requirements of the requester, such as the first types of services requested by the requester, an expected service location, an expected service time (e.g., a time point
or time period), an expected service price, a requirement on service providers, or the like, or any combination thereof. Taking a request for transportation services as an example, the request may include the types of transportation services requested by the requester, a current location of the requester, a start location, a destination, a departure time, a number (or count) of passengers, or the like, or any combination thereof. In some embodiments, the service requirement(s) may be inputted manually by the requester and/or determined by the processing device 112.

[0084] In some embodiments, the request may be encrypted by the requester terminal, and the processing device 112 may decrypt the encrypted request after receiving the encrypted request. Merely by way of example, the requester terminal may encrypt the request using its private key and/or by digitally signing the request. The processing device 112 may decrypt the request using a public key of the requester terminal. In some embodiments, the encrypted request may include authentication information related to the requester terminal and/or the requester, such as an identification of the requester, a password inputted by the requester, and/or a digital signature of the requester terminal. The processing device 112 may verify the authentication information of the requester terminal and/or the requester before the decrypting.

[0085] In 520, the processing device 112 (e.g., the identification module 402) (e.g., the processing circuits of the processor 220) may identify one or more service providers in response to the request. Each of the service provider(s) may provide at least one first type of service of the plurality of first types of services.

[0086] In some embodiments, the service provider(s) may be determined according to a predetermined request allocation strategy. In some embodiments, the service provider(s) may include any service provider who can provide at least one first type of service to the requester. For example, the service provider(s) may include all or a part of service providers registered on the service system 100 who provide at least one first type of service. In some embodiments, the service provider(s) may include any service provider who can provide at least one first type
of service to the requester and satisfy one or more conditions. Exemplary conditions for a specific service provider may include that the specific service provider provides a target type of service, that the specific service provider is available to provide at least one first type of service to the requester at the expected service time, that the specific service provider can provide at least one first type of service to the requester at the expected service location, that the specific service provider satisfies the requester’s requirement(s) on service providers, that the distance between the specific service provider and the requester or the expected service location is shorter than a threshold distance, that the specific service provider can arrive at the expected service location within a predetermined time period, or the like, or any combination thereof.

[0087] In some embodiments, the processing device 112 may select one or more target types of services among the plurality of first types of services. The processing device 112 may further identify one or more service providers, each of which provides at least one target type of service of the one or more target types of services. The target type(s) of service(s) may include, for example, a first type of service whose corresponding service providers have a sufficient service capacity, a first type of service that is preferred by the requester, a predetermined first type of service of the service system 100, or the like, or any combination thereof.

[0088] As used herein, a service capacity of service providers of a specific service may indicate a number (or count) of service requests that the service providers of the specific service can handle. The service capacity of the service providers may be regarded as being sufficient if the service providers can handle more than a predetermined number (or count) of service requests. More descriptions regarding the service capacity may be found elsewhere in the present disclosure. See, e.g., operation 540 and relevant descriptions thereof. The first type of service that is preferred by the requester may be, for example, a first type of service that is frequently used or requested by the requester (e.g. used or requested by the requester for more than a certain number in a predetermined period of time),
a first type of service that is selected by the requester as a preferred type of service, or the like. The predetermined first type of service of the service system 100 may be a default setting of the service system 100. For example, a premium car service and/or a luxury car service may be set as target types of services of the service system 100. As another example, the predetermined first type of service may be associated with a scenario in which the request is sent to the service system 100 by the requester. Merely by way of example, a carpool service may be set as a target type of service when the request is sent to the service system 100 in rush hours (e.g., 8:00 a.m. to 10:00 a.m.) or a raining day.

[0089] In some embodiments, the processing device 112 may identify the one or more service providers based on location information of the service provider(s). For example, the processing device 112 may receive location information of a plurality of candidate service providers from a plurality of candidate provider terminals associated with the candidate service providers. Each of the candidate service providers may provide at least one first type of service of the plurality of first types of services. The candidate service providers may include any service provider that can provide at least one first type of service to the requester, for example, all or a part of service providers registered on the service system 100 providing at least one first type of service. In some embodiments, the location information of a candidate service provider may be acquired using a location detection mechanism (e.g., a GPS device) of the corresponding candidate provider terminal. The location information of the candidate service provider may be transmitted to the processing device 112 via the network 120 continuously or intermittently (e.g., periodically or irregularly) by the corresponding candidate provider terminal.

[0090] The processing device 112 may further identify the one or more service providers among the candidate service providers based at least in part on the location information of the candidate service providers. For example, the processing device 112 may identify one or more of the candidate service providers who are within a threshold distance from the expected service location of the
requester (e.g., a start location of a transportation service). The processing device 112 may further designate the identified candidate service provider(s) as the service provider(s). As another example, the processing device 112 may rank the candidate service providers according to their distances to the expected service location or their estimated times to arrive at the expected service location. The estimated times for the candidate service providers to arrive at the expected service location may be determined based on the location information of the candidate service providers and/or other information that may influence the estimated times (e.g., traffic information and/or weather information). The processing device 112 may rank the candidate service providers according to the respective distances or estimated times in a predetermined order (e.g., a descending order). Further, the processing device 112 may identify one or more candidate service providers (e.g., top 1, top 2, top 5, top 10, top 1%, top 5%, top 10%) from the candidate service providers based on the ranking result, and designate the identified candidate service provider(s) as the service provider(s).

[0091] In 530, the processing device 112 (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit the request to one or more provider terminals of the one or more identified service providers.

[0092] In some embodiments, for a specific service provider, the request may be transmitted to the corresponding provider terminal and displayed on a user interface of the corresponding provider terminal to inquire about whether the specific service provider accepts the request. Taking a transportation request as an example, information related to the transportation request, such as a start location, a destination, and/or a departure time may be displayed on the user interface of the corresponding provider terminal. The specific service provider may determine whether to accept the transportation request based on the information related to the transportation service. The request may be displayed on the user interface of the provider terminal in a form of voice, text, a graph, an image, or the like, or any combination thereof. For example, the request may be displayed as text. As
another example, the request may be broadcasted by the provider terminal. In some embodiments, the request may be displayed on or by an APP installed in the provider terminal.

[0093] In some embodiments, the one or more identified service providers may include a plurality of service providers. The processing device 112 may transmit the request to each of the provider terminals of the service providers at the same time. Alternatively, the processing device 112 may transmit the request to different provider terminals at different times. For example, the processing device 112 may first transmit the request to a service provider who is nearest to the requester or the expected service location. If the processing device 112 does not receive a response from the service provider within a predetermined period (e.g., 30 seconds, 1 minute, or 1.5 minutes), the processing device 112 may transmit the request to other service providers (e.g., service providers of one or more target types of services as described in connection with operation 520). As another example, in some embodiments, service providers of a plurality of target types of services are identified in operation 520. The processing device 112 may first transmit the request to service provider(s) of a certain target type of service (e.g., a premium car service or a carpool service). If the processing device 112 does not receive a response from the service provider(s) of the certain target type of service within a predetermined period (e.g., 30 seconds, 1 minute, or 1.5 minutes), the processing device 112 may transmit the request to service provider(s) of another target type of service.

[0094] In 540, for at least one first type of service provided by the one or more identified service providers, the processing device 112 (e.g., the determination module 404) (e.g., the processing circuits of the processor 220) may determine a service capacity of service providers of the at least one first type of service.

[0095] As described in connection with operation 520, the service capacity of service providers of a specific service may indicate a number (or count) of service requests that the service providers of the specific service can handle. The service
capacity of the service providers of the specific service may be measured by, for example, the number of the service providers, a difference between the number of the service providers and the number of service orders of the specific service, or the like, or any combination thereof. The service providers of the specific service may be regarded as having a sufficient service capacity if, for example, the number of the service providers exceeds a first threshold, the difference between the number of service providers and the service orders of the specific service exceeds a second threshold, or the like, or any combination thereof. The service providers of the specific service may be regarded as having an insufficient service capacity if, for example, the number of the service providers is smaller than a third threshold, the difference between the number of service providers and the service orders of the specific service is smaller than a fourth threshold, or the like, or any combination thereof. The first, second, third, and the fourth thresholds may be any suitable value.

[0096] Taking a carpool service as an example, the service providers of the transportation service determined in operation 520 may include carpool drivers who are within a predetermined distance from the expected service location or who can arrive at the expected service location within a predetermined time period. The carpool drivers may be regarded as having a sufficient service capacity if the number of the carpool drivers are equal to or greater than a predetermined number.

[0097] In 550, the processing device 112 (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit an instruction (also referred to as a third instruction) to the requester terminal to present a notification via the user interface of the requester terminal. The notification may be related to the service capacity of service providers of the at least one first type of service.

[0098] In some embodiments, the service providers identified in operation 520 may provide a plurality of first types of services. For each of the first types of services (or a portion thereof), a notification related to a service capacity of the corresponding service provider(s) may be displayed on the requester terminal.
some embodiments, the notification corresponding to a specific service may be in a certain form depending on the service capacity of the corresponding service provider(s). For example, if the service provider(s) of the specific service have a sufficient service capacity, the notification may indicate that the request has been allocated to the corresponding service provider(s). The notification indicating that the request has been allocated to the corresponding service provider(s) may also be referred to as a second indication element herein. As another example, if the service provider(s) of the specific service have an insufficient service capacity, the service system 100 may designate the request as a pending request of the specific service waiting for allocation. The notification may indicate, for example, a sequence number of the request in all pending requests for the specific service in the service system 100, an estimated wait time for the request to be fulfilled, or the like, or any combination thereof. In this way, the requester may clearly know the processing progress of the request. More descriptions regarding the notification may be found elsewhere in the present disclosure. See, e.g., FIGs. 17 to 19 and relevant descriptions thereof.

In 560, the processing device 112 (e.g., the obtaining module 401) (e.g., the interface circuits of the processor 220) may receive at least one response regarding the request from at least one target provider terminal among the one or more provider terminals. Each of the at least one target provider terminal may be associated with a target service provider of the identified service provider(s).

As used herein, a target service provider may refer to a service provider, among the identified service provider(s), who accepts the request and transmit a response regarding the request to the processing device 112. A target provider terminal may refer to a provider terminal of the target service provider. In some embodiments, a plurality of service providers may be identified for the request in operation 520. Only one target service provider who is the first to accept the request (i.e., the earliest response) among the identified service providers can transmit a response to the processing device 112. After the request is accepted by
the target service provider, the processing device 112 may transmit an update status of the request to other service provider(s) to inform that the request has been accepted. Alternatively, more than two target service providers of the identified service providers can accept the request and transmit a response to the processing device 112. Both of the target service providers may be provided to the requester for selection.

[0101] In 570, the processing device 112 (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

[0102] In some embodiments, the information related to a target service provider may include the at least one first type of service provided by the target service provider, profile information, location information, vehicle information, performance information, or the like, or any combination thereof. Exemplary profile information of the target service provider may include the name, the gender, the age, contact information (e.g., a telephone number), an education level, an address, an occupation, a marriage state, or the like, or any combination thereof. Exemplary location information may include a current location of the target service provider, the distance between the target service provider and the requester or the expected service location, an estimated time for the target service provider to arrive at the expected service location, or the like, or any combination thereof. Exemplary vehicle information may include a license plate number of a vehicle of the target service provider, a color of the vehicle, a type of the vehicle, a brand name of the vehicle, a number of seats in the vehicle, a load capacity of the vehicle (e.g., a weight of products or a number of passengers that the vehicle can carry), or the like, or any combination thereof. Exemplary performance information of the target service provider may include the number of historical service orders completed by the target service provider, one or more feedbacks regarding the target service provider received from historical service requesters, an average performance score
of evaluated by the historical service requesters, or the like, or any combination thereof. In some embodiments, for different target service providers, the information to be presented on the requester terminal may include the same type or different types of information.

[0103] In some embodiments, the information related to the at least one target service provider may be acquired from a storage device (e.g., the storage device 160) of the service system 100 or an external source via the network 120. In some embodiments, the information related to the at least one target service provider may be presented on the user interface in a manner as shown in FIG. 16.

[0104] It should be noted that the above description regarding the process 500 is merely provided for the purposes of illustration, and not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. In some embodiments, the order of the operations of the process 500 as illustrated in FIG. 5 and described above is not intended to be limiting. For example, operations 530 and 540 may be performed simultaneously or operation 540 may be performed before operation 530. Additionally or alternatively, the process 500 may be accomplished with one or more additional operations not described and/or without one or more of the operations herein discussed. For example, operations 540 and 550 may be omitted.

[0105] In some embodiments, after the service provider(s) are identified in operation 520, the processing device 112 (e.g., the obtaining module 401) (e.g., the interface circuits of the processor 220) may receive location information related to at least one service provider of the identified service provider(s). The location information related to the at least one service provider may be acquired using a location detection mechanism (e.g., a GPS device) of a corresponding provider terminal, and transmitted to the processing device 112 by the provider terminal. The location information related to the service provider may be similar to that of a target service.
provider as described in connection with 570, and the descriptions thereof are not repeated here.

[0106] The processing device 112 may further transmit an instruction (also referred to as a fourth instruction) to the requester terminal to present a location of the at least one service provider on a map via the user interface based on the location information of the at least one service provider. For example, for each of the at least one service provider, the requester terminal may be instructed to present an element representing the service provider at the location of the service provider on the map. The element of the at least one service provider may have any suitable shape, for example, a shape of a vehicle. Optionally, the elements of different service providers providing different types of services may be of different forms (e.g., having different shapes).

[0107] In some embodiments, updated location information of the at least one service provider may be transmitted to the processing device 112 in real-time or periodically. The location of the element representing the at least one service provider may be updated according the updated location information. In some embodiments, the identified service provider(s) may include a plurality of service providers. The locations of all identified service providers may be displayed on the map. Alternatively, the locations of a portion of the service providers may be displayed on the map. For example, the locations of the at least one target service provider who accepts the request and/or one or more of the service providers who are located within a predetermined distance to the requester may be displayed on the map.

[0108] FIG. 6 is a flowchart illustrating an exemplary process for receiving a request for a plurality of first types of services from a requester terminal according to some embodiments of the present disclosure. In some embodiments, process 600 may be executed by the service system 100. For example, the process 600 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In
some embodiments, the processing device 112 (e.g., the processor 220 of the computing device 200, the CPU 340 of the mobile device 300, and/or one or more modules illustrated in FIG. 4) may execute the set of instructions and may accordingly be directed to perform the process 600 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that connects service providers and requesters through the Internet. In some embodiments, one or more operations of the process 600 may be performed to achieve at least part of operation 510 as described in connection with FIG. 5.

[0109] In 610, the processing device 112 (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit a first instruction to the requester terminal to present a first element for requesting the plurality of first types of services via a user interface of the requester terminal. The first element may be in the form of text, a graph, an image, a button, an icon, or the like, or any combination thereof. Taking transportation services as an example, the first element may be a button showing “hailing at the same time” (e.g., an element 1202 as illustrated in FIG. 12), wherein the requester may press the button to hail different types of vehicles at the same time. In some embodiments, the first instruction may instruct the requester terminal to present the first element as well as a second element for requesting a second type of service. Details regarding the second element may be found elsewhere in the present disclosure (e.g., FIG. 7 and the relevant descriptions thereof).

[0110] In 620, the processing device 112 may (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit a second instruction to the requester terminal to present an indication element (also referred to as a first indication element herein) indicating availability of the first element via the user interface.

[0111] In order to prompt the requester that he/she can request the first types of services at the same time, the requester terminal may be instructed to present the indication element indicating the availability of the first element via the
user interface before the requester makes the request. The indication element may be in the form of text, a graph, an image, a button, an icon, or the like, or any combination thereof. For example, the indication element may be a prompt box pointing to the first element showing “Press here to request different types of services at the same time.” As another example, the indication element may overlay on the first element so that the first element has a certain presentation effect and thereby becomes more noticeable. Merely by way of example, the indication element may overlay on the first element to make the first element has a certain display effect, such as flashing, be enlarged, or showing a particular color. More descriptions regarding the indication element may be found elsewhere in the present disclosure. See, e.g., FIG. 13 and relevant descriptions thereof.

[01 12] In 630, the processing device 112 may (e.g., the obtaining module 401) (e.g., the interface circuits of the processor 220) may receive a selection of the first element from the requester terminal.

[01 13] In some embodiments, the requester may select the first element via, for example, a typing mechanism (e.g., a keyboard), a voice input mechanism (e.g., a microphone), a gesture input mechanism (e.g., a touch screen) of the requester terminal, or the like, or any combination thereof. For example, the first element may be a button, and the requester may select the first element by, for example, clicking, pressing, or double-clicking the button. As another example, the first element may be a slide button, and the requester may select the first element by swiping the slide button in a certain direction. In some embodiments, upon receiving the selection of the first element, the requester terminal may transmit the request to the processing device 112 via a network (e.g., network 120).

[01 14] It should be noted that the above description regarding the process 600 is merely provided for the purposes of illustration, and not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the
scope of the present disclosure. In some embodiments, the process 600 may be accomplished with one or more additional operations not described and/or without one or more of the operations herein discussed. For example, operation 620 may be omitted. As another example, the process 600 may include one or more operations in process 700 in which the requester terminal is directed to display one or more other elements for selection. In some embodiments, the order of the operations of the process 600 as illustrated in FIG. 6 and described above is not intended to be limiting. In some embodiments, the first instruction may instruct the requester terminal to present a plurality of first elements via the user interface, wherein each of the first elements may be used to ask for different first types of services. The requester may select one of the first elements to request the corresponding first types of services.

[0115] FIG. 7 is a flowchart illustrating an exemplary process for transmitting a first instruction to a requester terminal to present a first element for requesting a plurality of first types of services according to some embodiments of the present disclosure. In some embodiments, process 700 may be executed by the service system 100. For example, the process 700 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In some embodiments, the processing device 112 (e.g., the processor 220 of the computing device 200, the CPU 340 of the mobile device 300, and/or one or more modules illustrated in FIG. 4) may execute the set of instructions and may accordingly be directed to perform the process 700 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that connects service providers and requesters through the Internet. In some embodiments, one or more operations of the process 700 may be performed to achieve at least part of operation 610 as described in connection with FIG. 6.

[0116] In 710, the processing device 112 (e.g., the determination module 404) (e.g., the processing circuits of the processor 220) may determine a display order of the
first element and a second element for requesting a second type of service.

[01 17] The second type of service may be one of the first types of services or another type of service provided by the service system 100. For example, the first types of services may include a plurality of transportation services, such as an express car service, a luxury car service, and a taxi service. The second type of service may be one of the transportation services or another service, such as another type of transportation service or a delivery service. The second element may be in a similar form as or a different form from the first element. Merely by way of example, the first element and the second element may be two buttons having the same shape and size. In some embodiments, the first instruction may instruct the requester terminal to display a plurality of second elements, each of which is used to request a second type of service. For illustration purposes, the following description is provided with reference to a first instruction that instructs the requester terminal to present a second element.

[01 18] In some embodiments, the display order of the first element and the second element may be associated with the presentation forms of the two elements, for example, the positions on the user interface at which the two elements are displayed and/or the time when the two elements are displayed. Merely by way of example, it is assumed that the first element is ranked before the second element according to the display order. The requester terminal may be instructed to display the first element and the second element in a line according to the display order, wherein the first element is displayed in front of the second element in the line. As another example, the requester terminal may be instructed to first show the first element and then show the second element according to the display order.

[01 19] In some embodiments, the processing device 112 may determine the display order of the first element and the second element by ranking the two elements randomly. Alternatively, the processing device 112 may determine a more recommended element among the first and second element, and assign a higher ranking to the more recommended element in the display order. For example, the
more recommended element of the two elements may be the most frequently used or the most recently used element of the requester and/or other requesters of the service system 100 in a predetermined period (e.g., the last month, the last three months, or the last year). As another example, the processing device 112 may determine the more recommended element according to the scenario in which the request is sent to the service system 100, the expected service time, and/or the expected service location of the request. Taking a transportation service as an example, the first element may be determined as the more recommended element if the expected service time is in rush hours (e.g., 8:00 a.m. to 10:00 a.m.) or a raining day, such that the requester may ask for a plurality of types of transportation service simultaneously. As yet another example, the processing device 112 may determine the more recommended element based on service capacities of service providers of the first types of services and the second type of service. Merely by way of example, if the service capacity of service providers of the second type of service is sufficient, the second element may be determined as the more recommended element. On the other hand, if the service capacity of service providers of the second type of service is insufficient, the first element may be determined as the more recommended element. As yet another example, the processing device 112 may determine the more recommended element based on a default setting of the service system 100.

[0120] In 720, the processing device 112 (e.g., the transmission module 403) (e.g., the interface circuits of the processor 220) may transmit the first instruction to the requester terminal to present the first element and the second element according to the display order via the user interface.

In some embodiments, a more recommended element may be determined from the first and second elements and have a higher ranking in the display order as described in connection with operation 710. The more recommended element may be displayed in front of the other element or earlier than the other element. In this way, it is more likely that the requester selects the more recommended element.
More descriptions regarding displaying the first and second elements according to the display order may be found elsewhere in the present disclosure. See, e.g., operation 710 and relevant descriptions thereof.

[0121] In some embodiments, only a portion of the first element and/or a portion of the second element may be displayed on the user interface of the requester terminal. More descriptions regarding display of the first element and the second element may be found elsewhere in the present disclosure. See, e.g., FIG. 11 and relevant descriptions thereof.

[0122] It should be noted that the above description regarding the process 700 is merely provided for the purposes of illustration, and not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. In some embodiments, the process 700 may be accomplished with one or more additional operations not described and/or without one or more of the operations herein discussed. Additionally, the order in which the operations of the process 700 as illustrated in FIG. 7 and described above is not intended to be limiting.

[0123] FIG. 8 is a block diagram illustrating an exemplary requester terminal according to some embodiments of the present disclosure. The requester terminal 130 may include a communication module 801 and a presentation module 802. The modules may be hardware circuits of all or part of the requester terminal 130. The modules may also be implemented as an application or set of instructions read and executed by the requester terminal 130. Further, the modules may be any combination of the hardware circuits and the application/instructions. For example, the modules may be the part of the requester terminal 130 when the requester terminal 130 executes the application/set of instructions.

[0124] The communication module 801 may be configured to enable data communications between the requester terminal 130 and one or more components of
the service system 100. For example, the communication module 801 may transmit a request for a plurality of first types of services to a service platform (e.g., the processing device 112 of the service system 100), wherein the request may be inputted by a requester. As another example, the communication module 801 may receive information related to at least one target service provider who can provide at least one first type of service to the requester. As yet another example, the communication module 801 may receive a display order of a first element for requesting the plurality of first types of services and a second element for requesting a second type of services from the service platform. More descriptions regarding the data communications may be found elsewhere in the present disclosure. See, e.g., FIGs. 9 to 11 and the relevant descriptions thereof.

[0125] The presentation module 802 may be configured to present information via a user interface of the requester terminal 130. For example, the presentation module 802 may be configured to present one or more elements for requesting services via the user interface. As another example, the presentation module may be configured to present information related to the at least one target service provider via the user terminal. More descriptions regarding the information presented via the user terminal may be found elsewhere in the present disclosure. See, e.g., FIGs. 9-19 and relevant descriptions thereof.

[0126] It should be noted that the above description of the requester terminal 130 is provided for the purposes of illustration, and is not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. In some embodiments, any module mentioned above may be divided into two or more units. In some embodiments, the requester terminal 130 may further include one or more additional modules or one or more modules mentioned above may be omitted. For example, the requester terminal 130 may further include an encrypt module configured to encrypt information and/or a decrypt
module configured to decrypt information. In some embodiments, the communication module 801 may be divided into a receiving unit configured to receive information from other component(s) of the service system 100 and a transmission unit configured to transmit information to other component(s) of the service system 100.

[0127] FIG. 9 is a flowchart illustrating an exemplary process for processing a service request according to some embodiments of the present disclosure. In some embodiments, process 900 may be executed by the service system 100. For example, the process 900 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In some embodiments, a requester terminal 130 (e.g., a CPU or GPU of the requester terminal 130, and/or one or more modules illustrated in FIG. 8) may execute the set of instructions and may accordingly be directed to perform the process 900 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that connects service providers and requesters through the Internet.

[0128] In 910, the requester terminal 130 (e.g., the communication module 801) may transmit a request for a plurality of first types of services to a service platform (e.g., the service system 100).

[0129] The first types of services may include a plurality of types of services provided by the service system that can be requested simultaneously. In some embodiments, the request for the first types of services may be inputted by a user of the requester terminal 130 (also referred to as a requester) via the user interface of the requester terminal 130. For example, the requester terminal 130 may present a specific user interface (e.g., a user interface 1200 as illustrated in FIGs. 12 to 15) for the requester to input the request. The user interface may present a first element for requesting the first types of services simultaneously. Optionally, the user interface may also present a second element for requesting a second type of service and/or an indication element indicating the availability of the first element. Upon
receiving a selection of the first element, the requester terminal 130 may transmit the request the first types of services to the service system. More descriptions regarding the request for the first types of services may be found elsewhere in the present disclosure. See, e.g., operation 510 and FIGs. 11 and 12 and relevant descriptions thereof.

[0130] In some embodiments, the requester terminal 130 may encrypt the received request, and transmit the encrypted request to the service platform. For example, the requester terminal 130 may encrypt the request using its private key and/or by digitally signing the request. In some embodiments, the encrypted request may include authentication information related to the requester terminal 130 and/or the requester, such as an identification of the requester, a password inputted by the requester, a digital signature of the requester terminal 130. The authentication information may allow the service platform to verify the requester terminal 130 and/or the requester.

[0131] In 920, the requester terminal 130 (e.g., the communication module 801) may receive information related to at least one target service provider from the service platform. The at least one target service provider may provide at least one first type of service of the plurality of first types of services.

[0132] As described in connection with FIG. 5, the at least one target service provider may include one or more service providers who accept the request and willing to provide at least one first service to the requester. The information related to the at least one target service provider may include the at least one first type of service provided by the at least one target service provider, profile information, location information, vehicle information, performance information of the at least one target service provider, or the like, or any combination thereof. In some embodiments, the at least one target service provider may be determined by one or more components of the service platform (e.g., the processing device 112) by performing one or more methods for determining target service providers disclosed in the present disclosure (e.g., the operations 520, 530, and 560).
[0133] In 930, the requester terminal 130 (e.g., the presentation module 802) may present the information related to the at least one target service provider via the user interface. In some embodiments, the requester terminal 130 may present the information related to the at least one target service provider in a manner as shown in FIG. 16.

[0134] FIG. 10 is a flowchart illustrating an exemplary process for transmitting a request for a plurality of first types of services to a service platform according to some embodiments of the present disclosure. In some embodiments, process 1000 may be executed by the service system 100. For example, the process 1000 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In some embodiments, a requester terminal 130 (e.g., a CPU or GPU of the requester terminal 130, and/or one or more modules illustrated in FIG. 8) may execute the set of instructions and may accordingly be directed to perform the process 1000 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that connects service providers and requesters through the Internet. In some embodiments, one or more operations of the process 1000 may be performed to achieve at least part of operation 910 as described in connection with FIG. 9.

[0135] In 1010, the requester terminal 130 (e.g., the presentation module 802) may present a first element for requesting the plurality of first types of services via the user interface. In 1020, the requester terminal 130 (e.g., the presentation module 802) may present an indication element indicating availability of the first element via the user interface.

[0136] The first element may be used to request the plurality of first types of services simultaneously. The indication element may be used to prompt the requester that he/she can select the first element to request the first types of services. In some embodiments, the requester terminal 130 may display the first element and the indication element at the same time. Alternatively, the requester
terminal 130 may first display the first element and then display the indication element. In some embodiments, the requester terminal 130 may only display the first element. More descriptions regarding the first element and the indication element may be found elsewhere in the present disclosure. See, e.g., operations 610 and 620 and relevant descriptions thereof. In some embodiments, the requester terminal 130 may further display a second element for a second type of service together with the first element and the indication element (if any). More descriptions regarding the second element may be found elsewhere in the present disclosure. See, e.g., FIG. 11 and relevant descriptions thereof.

[0137] In 1030, the requester terminal 130 (e.g., the communication module 801) may transmit the request for the plurality of first types of services to the service platform upon receiving a selection of the first element.

[0138] In some embodiments, the requester may select the first element via, for example, a typing mechanism (e.g., a keyboard), a voice input mechanism (e.g., a microphone), a gesture input mechanism (e.g., a touch screen) of the requester terminal, or the like, or any combination thereof. Upon detecting the selection of the first types of services, the requester terminal may transmit the request (or the selection of the first element) to the processing device 112 via a network (e.g., the network 120).

[0139] FIG. 11 is a flowchart illustrating an exemplary process for displaying a first element via a user interface of a requester terminal according to some embodiments of the present disclosure. In some embodiments, process 1100 may be executed by the service system 100. For example, the process 1100 may be implemented as a set of instructions (e.g., an application) stored in a storage device (e.g., the storage device 160, the ROM 230, the RAM 240, the storage 390). In some embodiments, a requester terminal 130 (e.g., a CPU or GPU of the requester terminal 130, and/or one or more modules illustrated in FIG. 8) may execute the set of instructions and may accordingly be directed to perform the process 1100 in a service platform (e.g., the service system 100). The platform may be an Internet-based platform that
connects service providers and requesters through the Internet. In some embodiments, one or more operations of the process 1100 may be performed to achieve at least part of operation 1010 as described in connection with FIG. 10.

[0140] In 1110, the requester terminal 130 (e.g., the communication module 801) may receive a display order of the first element and a second element for requesting a second type of service from the service platform.

[0141] As described in connection with operation 710, the second type of service may be one of the first types of services or another type of service provided by the service system. The display order of the first element and the second element may be associated with the presentation forms of the two elements, such as, the positions on the user interface at which the two elements are displayed and/or the time when the two elements are displayed. In some embodiments, the display order may be determined by one or more components of the service platform (e.g., the processing device 112) by performing one or more methods for determining the display order as described in connection with operation 710. For example, the processing device 112 may determine the display order by selecting a more recommended element from the first and second elements based on the frequencies of use of the first and second elements, services capacities of service providers of the first types of services and the second type of service, or the like. In this way, the more recommended element may be presented in a more visible and/or accessible way such that the more recommended element is more likely to be chosen by the requester.

[0142] In 1120, the requester terminal 130 (e.g., the presentation module 802) may present the first element and the second element according to the display order. Merely by way of example, the first element may be displayed in front of the second element if the first element has a higher ranking in the display order.

[0143] In some embodiments, the first element and the second element may be slidable on the user interface of the requester terminal 130. Additionally or alternatively, there are other similar elements as the first or second element not
displayed on the user interface because of the limited size of the user interface. In order to remind the requester that the first and second elements are slidable and/or to remind the requester that there are other elements not shown on the user interface, the requester terminal 130 may display a portion of the first element and the entire second element via the user interface. Alternatively, the requester terminal 130 may display the entire second element and a portion of the first element via the user interface.

[0144] In 1130, the requester terminal 130 (e.g., the presentation module 802) may present the first element or the second element via the user interface upon detecting an action directed to a predetermined area of the user interface.

[0145] In some embodiments, the requester may perform the action on the predetermined area of the user interface to swipe the first element and the second element or to view other elements. The predetermined area may be any suitable area on the user interface, for example, an area including the first element and/or the second element. The action may include, for example, a swiping action (e.g., a left-swiping action, a right-swiping action), a click action, a pressing action, a double-click action, or the like, or any combination thereof. Upon detecting the action, the requester terminal 130 may present the entire first element or the entire second element via the user interface.

[0146] It should be noted that the above descriptions regarding the processes 900, 1000, and 1100 are merely provided for the purposes of illustration, and not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. In some embodiments, the processes 900 to 1100 may be accomplished with one or more additional operations not described and/or without one or more of the operations herein discussed. For example, operation 1020 in the process 1000 may be omitted. As another example, the entire first element and the entire second element may be displayed on the user
interface in operation 1120, and operation 1130 may be omitted. In some embodiments, the requester terminal 130 may present a plurality of first elements for different first types of services and/or a plurality of second elements for different second types of services for selection.

[0147] FIGs. 12 to 19 illustrate exemplary user interfaces of a requester terminal 130 of a passenger according to some embodiments of the present disclosure.

[0148] In some embodiments, the requester terminal 130 may present a user interface 1200 for the passenger to initiate a request to hail one or more types of vehicles (i.e., asking for one or more types of transportation services). As illustrated in FIG. 12, the user interface 1200 may display a plurality of elements for hailing different types of vehicles, including an element 1202 for hailing a plurality of types of vehicles at the same time, an element 1203 for a carpool service, and an element 1204 for hailing an express car. The passenger may click the element 1202 to hail the express car, a premium car, and a taxi at the same time as indicated by an indication element 1207 as shown in FIG. 12. The user interface 1200 may also display a map 1206, wherein a recommended pick-up location is displayed on the map 1206. In some embodiments, the locations of the passenger and/or one or more service providers near the passenger (e.g., within a predetermined distance to the passenger) may be displayed on the map 1206. In some embodiments, the element 1202 may also be referred to as a first element, and the elements 1203 and 1204 may be referred to as second elements as described herein.

[0149] In some embodiments, an indication element may appear on the user interface 1200 to inform availability of the element 1202. For example, as illustrated in FIG. 13, an indication element 1301 and an indication element 1302 may appear to inform the passenger that the element 1202 is online and he/she may get a quicker response by hailing different types of vehicles at the same time.

[0150] In some embodiments, due to a limited size of the user interface 1200, one or more other elements for requesting other types of vehicles (e.g., a premium car, a luxury car) may be unable to be displayed completely. In order to remind the
passenger of the existence of the other element(s), the user interface 1200 may only display a portion of one of the other element(s). For example, as illustrated in FIG. 14, the user interface 1200 may display a portion of an element 1205 for hailing a premium car. The passenger may perform a certain action (e.g., a swiping action, a click action, a press action, a double-click action) on a predetermined area on the user interface 1200 (e.g., any one of the elements 1202 to 1205) to view the other element(s). Merely by way of example, the passenger may swipe the element 1205 left such that the user interface 1200 displays the entire element 1205 as shown in FIG. 15.

[0151] The passenger may select any one of the elements 1202 to 1205 to hailing the corresponding type(s) of the vehicle(s). Upon receiving the selection, the requester terminal 130 may transmit a request for the corresponding type(s) of the vehicle(s) to a service system (e.g., the service system 100). For illustration purposes, it is assumed that the passenger selects the element 1202 to request an express car service, a premium car service, and a taxi service at the same time. In some embodiments, one or more components of the service system (e.g., the processing device 112) may perform one or more methods (e.g., the process 500) disclosed herein to process the request. For example, the processing device 112 may transmit the request to drivers providing at least one of the express car service, the premium car service, and the taxi service. If a specific driver accepts the request, the processing device 112 may transmit information related to the driver to the requester terminal 130 for presentation. Merely by way of example, as shown in a user interface 1600 in FIG. 16, a vehicle 1601 is displayed at a current location of the specific driver on the map. In addition, the distance between the passenger and the specific driver and an estimated time for the specific driver to arrive at the pick-up location is illustrated in a region 1602. Also, vehicle information and performance information related to the specific driver is displayed in a region 1603. In some embodiments, the user interface 1600 may provide an element 1604 for the passenger to contact the specific driver.
In some embodiments, before receiving a response from at least one of the drivers, the processing device 112 may further determine a service capacity of the drivers providing the express car service, a service capacity of the drivers providing the premium car service, and a service capacity of the drivers providing the taxi service. The processing device 112 may instruct the requester terminal 130 to present a notification for each of the express car service, the premium car service, and the taxi service to indicate the service capacity of the corresponding service providers. As such, the passenger can understand the processing progress of the request, thereby improving the user experience.

Merely by way of example, the service capacities of the drivers of the express car service and the premium car service are insufficient, and the service capacity of the drivers of the taxi service is sufficient. As illustrated in a user interface 1700 in FIG. 17, a notification 1701 corresponding to the express car service is displayed to indicate wait information, such as a sequence number of the request in all pending request for the express car service in the service system and/or an estimated wait time for the request being allocated to the express car drivers. Similarly, a notification 1702 corresponding to the premium car service is displayed to indicate a sequence number of the request in all pending request for the premium car service in the service system and an estimated wait time for the request being allocated to the premium car drivers. On the other hand, a notification 1703 corresponding to the taxi service is displayed to indicate that the service system is hailing taxis for the requester. As another example, the service capacity of the drivers of the express car service is sufficient, and the service capacities of the drivers of the premium car service and the taxi service are sufficient. As illustrated in FIG. 18, the notifications 1701 and 1703 are displayed to indicate the service capacities corresponding to the express car service and the taxi service, respectively. A notification 1801 is displayed to indicate that the service system is hailing premium cars for the requester. As yet another example, the service capacities of the drivers of the express car service, the premium car service, and the
taxi service are both sufficient. A user interface 1700 as shown in FIG. 19 may be displayed. The user interface 1700 may display a notification 1901 to indicate that the service system is hailing express cars, taxis, and premium cars at the same time.

[0154] In some embodiments, the processing device 112 may only determine service capacities corresponding to a portion of the express car service, the premium car service, and the taxi service. For example, the processing device 112 may determine the service capacities without the taxi service. The processing device 112 may instruct the requester terminal 130 to present a predetermined notification (e.g., the notification 1703) for the taxi service.

[0155] It should be noted that the above examples illustrated in FIGs. 12 to 19 are merely provided for the purposes of illustration, and not intended to limit the scope of the present disclosure. For persons having ordinary skills in the art, multiple variations and modifications may be made under the teachings of the present disclosure. However, those variations and modifications do not depart from the scope of the present disclosure. For example, the interface elements (e.g., 1202-1207, 1301, 1302, 1601-1604, 1701-1703, 1801, and 1901) of the user interfaces 1200, 1600, and 1700 are merely illustrative. The elements may be configured in any other suitable shape, size, and position. As another example, one or more of the interface elements of the user interfaces 1200, 1600, and 1700 illustrated in figures may be omitted, and the user interfaces 1200, 1600, and 1700 may include one or more additional interface elements.

[0156] Having thus described the basic concepts, it may be rather apparent to those skilled in the art after reading this detailed disclosure that the foregoing detailed disclosure is intended to be presented by way of example only and is not limiting. Various alterations, improvements, and modifications may occur and are intended to those skilled in the art, though not expressly stated herein. These alterations, improvements, and modifications are intended to be suggested by this disclosure, and are within the spirit and scope of the exemplary embodiments of this disclosure.
Moreover, certain terminology has been used to describe embodiments of the present disclosure. For example, the terms "one embodiment," "an embodiment," and/or "some embodiments" mean that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the present disclosure. Therefore, it is emphasized and should be appreciated that two or more references to "an embodiment," "one embodiment," or "an alternative embodiment" in various portions of this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures or characteristics may be combined as suitable in one or more embodiments of the present disclosure.

Further, it will be appreciated by one skilled in the art, aspects of the present disclosure may be illustrated and described herein in any of a number of patentable classes or context including any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Accordingly, aspects of the present disclosure may be implemented entirely hardware, entirely software (including firmware, resident software, micro-code, etc.) or combining software and hardware implementation that may all generally be referred to herein as a "block," "module," "device," "unit," "component," or "system." Furthermore, aspects of the present disclosure may take the form of a computer program product embodied in one or more computer readable media having computer readable program code embodied thereon.

A computer readable signal medium may include a propagated data signal with computer readable program code embodied therein, for example, in baseband or as part of a carrier wave. Such a propagated signal may take any of a variety of forms, including electro-magnetic, optical, or the like, or any suitable combination thereof. A computer readable signal medium may be any computer readable medium that is not a computer readable storage medium and that may communicate, propagate, or transport a program for use by or in connection with an instruction execution system, apparatus, or device. Program code embodied on a
computer readable signal medium may be transmitted using any appropriate medium, including wireless, wireline, optical fiber cable, RF, or the like, or any suitable combination of the foregoing.

[0160] Computer program code for carrying out operations for aspects of the present disclosure may be written in any combination of one or more programming languages, including an object oriented programming language such as Java, Scala, Smalltalk, Eiffel, JADE, Emerald, C++, C#, VB. NET, Python or the like, conventional procedural programming languages, such as the “C” programming language, Visual Basic, Fortran 1703, Perl, COBOL 1702, PHP, ABAP, dynamic programming languages such as Python, Ruby and Groovy, or other programming languages. The program code may execute entirely on the user's computer, partly on the user’s computer, as a stand-alone software package, partly on the user's computer and partly on a remote computer or entirely on the remote computer or server. In the latter scenario, the remote computer may be connected to the user's computer through any type of network, including a local area network (LAN) or a wide area network (WAN), or the connection may be made to an external computer (for example, through the Internet using an Internet Service Provider) or in a cloud computing environment or offered as a service such as a software as a service (SaaS).

[0161] Furthermore, the recited order of processing elements or sequences, or the use of numbers, letters, or other designations, therefore, is not intended to limit the claimed processes and methods to any order except as may be specified in the claims. Although the above disclosure discusses through various examples what is currently considered to be a variety of useful embodiments of the disclosure, it is to be understood that such detail is solely for that purpose, and that the appended claims are not limited to the disclosed embodiments, but, on the contrary, are intended to cover modifications and equivalent arrangements that are within the spirit and scope of the disclosed embodiments. For example, although the implementation of various components described above may be embodied in a
hardware device, it may also be implemented as a software-only solution—e.g., an installation on an existing server or mobile device.

[0162] Similarly, it should be appreciated that in the foregoing description of embodiments of the present disclosure, various features are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure aiding in the understanding of one or more of the various embodiments. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed subject matter requires more features than are expressly recited in each claim. Rather, claimed subject matter may lie in less than all features of a single foregoing disclosed embodiment.
WE CLAIM:

1. A method, comprising:
   receiving, from a service requester via a user interface, a request for a plurality of types of services; and
   presenting, via the user interface, vehicle information of a vehicle in response to the request, wherein a service provider of the vehicle is determined by a service platform according to the plurality of types of services and a predetermined request allocation strategy.

2. The method of claim 1, further comprising:
   presenting, via the user interface based on a predetermined display order, at least two elements, at least one first element of the at least two elements being used to request the plurality of types of services; and
   the receiving the request from the service requester via the user interface includes receiving, via the user interface, a selection of the at least one first element.

3. The method of claim 2, wherein the presenting, via the user interface, at least two elements further comprises:
   receiving, via the user interface, a swiping operation performed by the service requester; and
   in response to the swiping operation, presenting, via the user interface, the at least two elements.

4. The method of claim 3, wherein the presenting the at least two elements via the user interface further comprises:
   for at least one element of the at least two elements, presenting, via the user interface, a portion of the least one element.

5. The method of any one claims 2 or 4, wherein the method further comprises:
presenting, via the user interface, a first indication element for indicating availability of the at least one first element.

6. The method of any one of claims 1 to 5, wherein the method further comprises:
presenting, via the user interface, wait information of the service requester; or
presenting, via the user interface, a second indication element for indicating that the request has been allocated to service providers of at least one type of service of the plurality of types of services.

7. The method of any one of claims 1 to 6, wherein the presenting, via the user interface, the vehicle information of a vehicle includes:
presenting, via the user interface, the vehicle information and a type of service provided by a corresponding service provider of the vehicle.

8. The method of any one of claims 1 to 7, wherein the method further comprises:
transmitting, to the service platform, the request; and
receiving, from the service platform, the vehicle information.

9. A method for processing a service, comprising:
receiving, from a first terminal, a request for a plurality of types of services;
transmitting, based on a predetermined request allocation strategy, the request to one or more second terminals of one or more service providers, the one or more service providers providing at least one type of service of the plurality of types of services; and
transmitting, to the first terminal, vehicle information of a vehicle, the vehicle being associated with a service provider having an earliest response to the request among the one or more service providers.

10. The method of claim 9, further comprising:
determining a display order of at least two elements, at least one first element of the at least two elements being used to request the plurality of types of services; and transmitting, to the first terminal, the display order.

11. The method of claim 9 or 10, wherein the transmitting the request to one or more second terminals of one or more provider terminals based on a predetermined request allocation strategy includes:

transmitting the request to one or more second terminals of one or more service providers who provide a target type of service, wherein the target type of services being a type of service that has a sufficient capacity; or

transmitting the request to one or more second terminals of one or more service providers who provide a predetermined type of service of the plurality of types of services; or

determining a plurality of second terminals of service providers who provide at least one type of service of the plurality of types of services, and transmitting the request to a second terminal that has the shortest distance to the first terminal among the plurality of second terminals; or

transmitting, based on at least one of preference information of the service requester or a scenario under which the request is received, the request to one or more second terminals of one or more service providers who provide at least one type of service of the plurality of types of services.

12. The method of claim 10, further comprising:

transmitting, to the first terminal, a first indication element for indicating availability of the at least one first element.

13. The method of claim 9 or 10, wherein transmitting the request to one or more second terminals of one or more service providers based on a predetermined request allocation strategy further includes:
for at least one type of service of the plurality of types of services, determining whether a service capacity associated with at least one type of service is sufficient; and

in response to a determination that the service capacity associated with the at least one type of service is insufficient, determining wait information of the at least one type of service and transmitting the wait information to the first terminal; or

in response to a determination that the service capacity associated with the at least one type of service is sufficient, transmitting, to the first terminal, a second indication element for indicating that the request has been allocated to service providers of the at least one type of service.

14. The method of claim 9 or 10, wherein the transmitting vehicle information of the vehicle to the first terminal includes:

transmitting, to the first terminal, the vehicle information and a type of service provided by a corresponding service provider of the vehicle.

15. A device, comprising:

a receiving module configured to receive, from a service requester via a user interface, a request for a plurality of types of services; and

a presentation module configured to present, via the user interface, vehicle information of a vehicle in response to the request, wherein a service provider of the vehicle is determined by a service platform according to the plurality of types of services and a predetermined request allocation strategy.

16. The device of claim 15, wherein:

the presentation module is further configured to present, via the user interface, at least two elements based on a predetermined display order, at least one first element of the at least two elements being used to request the plurality of types of services; and
the receiving module is further configured to receive, via the user interface, a selection of the at least one first element.

17. The device of claim 16, wherein:
   the receiving module is further configured to receive a swiping operation performed by the service requester via the user interface; and
   the presentation module is further configured to present, via the user interface, the at least two elements in response to the swiping operation.

18. The device of claim 16 or 17, wherein the presentation module is further configured to:
   for at least one element of the at least two elements, present, via the user interface, a portion of the least one element.

19. The device of claim 16 or 18, wherein the presentation module is further configured to:
   present, via the user interface, a first indication element for indicating availability of the at least one first element.

20. The device of any one of claims 15 to 19, wherein the presentation module is further configured to:
   present, via the user interface, wait information of the service requester; or
   present, via the user interface, a second indication element for indicating that the request has been allocated to service providers of at least one type of service of the plurality of types of services.

21. The device of any one of claims 15 to 20, wherein the presentation module is further configured to:
present, via the user interface, the vehicle information and a type of service provided by a corresponding service provider of the vehicle.

22. The device of any one of claims 15 to 21, wherein:
   the device further comprises a transmission module configured to transmit the request to the service platform; and
   the receiving module is further configured to receive the vehicle information from the service platform.

23. A device, comprising:
   a receiving module configured to receive a request for a plurality of types of services from a first terminal; and
   a transmission module configured to:
       transmit, based on a predetermined request allocation strategy, the request to one or more second terminals of one or more service providers, the one or more service providers providing at least one type of service of the plurality of types of service, and
       transmit, to the first terminal, vehicle information of a vehicle, the vehicle being associated with a service provider having an earliest response to the request among the one or more service providers.

24. The device of claim 23, wherein:
   the device further comprises a determination module configured to determine a display order of at least two elements, at least one first element of the at least two elements being used to request the plurality of types of services; and
   the transmission module is further configured to transmit the display order to the first terminal.

25. The device of claim 23 or 24, wherein the transmission module is further
configured to:

transmit the request to one or more second terminals of one or more service providers who provide a target type of service, wherein the target type of services being a type of service that has a sufficient capacity; or

transmit the request to one second terminals of one or more service providers who provide a predetermined type of service of the plurality of types of services; or
determine a plurality of second terminals of service providers who provide at least one type of service of the plurality of types of services, and transmitting the request to a second terminal that has the shortest distance to the first terminal among the plurality of second terminals; or

transmit, based on at least one of preference information of a service requestor of the first terminal or a scenario under which the request is received, the request to one or more second terminals of one or more service providers who provide at least one type of service of the plurality of types of services.

26. The device of claim 24, wherein the transmission module further configured to:

transmit, to the first terminal, a first indication element for indicating availability of the at least one first element.

27. The device of claim 23 or 24, wherein:

the device further comprises a processing module configured to: for at least one type of service of the plurality of types of services, determining whether a service capacity associated with at least one type of service is sufficient;

in response to a determination that the service capacity associated with the at least one type of service is insufficient, the processing module is further configured to determine wait information of the at least one type of service, and the transmission module is further configured to transmit the wait information to the first terminal; and

in response to a determination that the service capacity associated with the at least one type of service is sufficient, the transmission module is further configured to
transmit, to the first terminal, a second indication element for indicating that the request has been allocated to service providers of the at least one type of service.

28. The device of claim 23 or 24, wherein the transmission module is further configured to transmit, to the first terminal, the vehicle information and a type of service provided by a corresponding service provider of the vehicle.

29. A user device, the device comprising a storage medium including a set of instructions, and at least one processor in communication with the at least one storage medium, wherein when executing the instructions, the at least one processor is configured to direct the user device to perform the method of any one of claims 1-8.

30. A server, comprising a storage medium including a set of instructions, and at least one processor in communication with the at least one storage medium, wherein when executing the instructions, the at least one processor is configured to perform the method of any one of claims 9-14.

31. A system for processing service requests received from requester terminals, comprising:

   at least one storage medium including a set of instructions; and

   at least one processor in communication with the at least one storage medium, wherein when executing the instructions, the at least one processor is configured to direct the system to perform operations including:

   receiving, from a requester terminal via a user interface of the requester terminal, a request for a plurality of first types of services;

   identifying one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services;
transmitting the request to one or more provider terminals of the one or more service providers;

receiving, from at least one target provider terminal of the one or more provider terminals, at least one response regarding the request, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers; and

transmitting information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

32. The system of claim 31, wherein:

the information related to the at least one target service provider includes the at least one first type of service provided by the target service provider of the at least one target service provider.

33. The system of claim 31 or 32, wherein the at least one processor is further configured to direct the system to perform additional operations including:

transmitting a first instruction to the requester terminal to present, via the user interface, a first element for requesting the plurality of first types of services, wherein receiving the request for the plurality of first types of services from the requester terminal includes receiving, from the requester terminal, a selection of the first element.

34. The system of claim 33, wherein the at least one processor is further configured to direct the system to additional operations including:

transmitting a second instruction to the requester terminal to present, via the user interface, an indication element indicating availability of the first element.

35. The system of claim 33 or 34, wherein to transmit a first instruction to the
requester terminal to present, via the user interface, a first element for requesting the plurality of first types of services, the at least one processor is further configured to direct the system to perform additional operations including:

determining a display order of the first element and a second element for requesting a second type of service; and

transmitting the first instruction to the requester terminal to present, via the user interface, the first element and the second element according to the display order.

36. The system of any one of claims 31 to 35, wherein to identify one or more service providers in response to the request, the at least one processor is further configured to direct the system to perform additional operations including:

selecting, among the plurality of first types of services, one or more target types of services; and

identifying the one or more service providers, each of the one or more service providers providing at least one target type of service of the one or more target types of services.

37. The system of any one of claims 31 to 35, wherein to identify one or more service providers in response to the request, the at least one processor is further configured to direct the system to perform additional operations including:

receiving, from a plurality of candidate provider terminals associated with a plurality of candidate service providers, location information of the plurality of candidate service providers, each of the plurality of candidate service providers providing at least one first type of service of the plurality of first types of services, the location information being acquired using a location detection mechanism of each of the plurality of candidate provider terminals; and

identifying, among the plurality of candidate service providers, the one or more service providers based at least in part on the location information of the
plurality of candidate service providers.

38. The system of any one of claims 31 to 37, wherein the at least one processor is further configured to direct the system to perform additional operations including:
   for at least one first type of service provided by the one or more service providers, determining a service capacity of service providers of the at least one first type of service; and
   transmitting a third instruction to the requester terminal to present a notification related to the service capacity of the service providers of the at least one first type of service via the user interface.

39. The system of any one of claims 31 to 38, wherein the at least one processor is further configured to direct the system to perform additional operations including:
   receiving, from at least one provider terminal of the one or more provider terminals, location information related to at least one service provider associated with the at least one provider terminal, the location information being acquired using a location detection mechanism of the at least one provider terminal; and
   transmitting a fourth instruction to the requester terminal to present, via the user interface, a location of the at least one service provider on a map based on the location information of the at least one service provider.

40. The system of any one of claims 31 to 39, wherein the received request is encrypted, and the at least one processor is further configured to direct the system to perform additional operations including:
   decrypting the encrypted request.

41. The system of claim 40, wherein to decrypt the encrypted request, the at least one processor is further configured to direct the system to perform additional operations including:
verifying authentication information of the requester terminal or a user of the requester terminal before the decrypting.

42. The system of any one of claims 31 to 41, wherein the at least one processor is further configured to direct the system to perform additional operations including:
   - encrypting the information of the at least one target service provider; and
   - transmitting the encrypted information to the requester terminal.

43. The system of claim 42, wherein the encrypted information includes authentication information of the requester terminal or a user of the requester terminal to authenticate the requester terminal or the user.

44. A terminal device, comprising:
   - a user interface;
   - at least one storage medium including a set of instructions for processing service requests; and
   - at least one processor in communication with the at least one storage medium, wherein when executing the instructions, the at least one processor is configured to direct the terminal device to perform operations including:
     - transmitting, to a service platform, a request for a plurality of first types of services;
     - receiving, from the service platform, information related to at least one target service provider, the at least one target service provider providing at least one first type of service of the plurality of first types of services; and
     - presenting, via the user interface, the information related to the at least one target service provider.

45. The terminal device of claim 44, wherein:
   - the information related to the at least one target service provider includes
the at least one first type of service provided by the at least one target service provider.

46. The terminal device of claim 44 or 45, wherein to transmit a request for a plurality of first types of services to a service platform, the at least one processor is configured to direct the terminal device to perform additional operations including:
   - presenting, via the user interface, a first element for requesting the plurality of first types of services; and
   - upon receiving a selection of the first element, transmitting the request for the plurality of first types of services to the service platform.

47. The terminal device of claim 46, wherein the at least one processor is further configured to direct the terminal device to perform additional operations including:
   - presenting, via the user interface, an indication element indicating availability of the first element.

48. The terminal device of claim 46 or 47, wherein to present a first element for requesting the plurality of first types of services via the user interface, the at least one processor is configured to direct the terminal device to perform additional operations including:
   - receiving, from the service platform, a display order of the first element and a second element for requesting a second type of service; and
   - presenting, via the user interface, the first element and the second element according to the display order.

49. The terminal device of claim 46 or 47, wherein to present a first element for requesting the plurality of first types of services via the user interface, the at least one processor is configured to direct the terminal device to perform additional operations including:
presenting, via the user interface, the first element and a portion of a second element for requesting a second type of service; or

presenting, via the user interface, the second element and a portion of the first element.

50. The terminal device of claim 49, wherein the at least one processor is configured to direct the terminal device to perform additional operations including:

upon detecting an action directed to a predetermined area of the user interface, presenting the first element or the second element via the user interface.

51. The terminal device of any one of claims 44 to 50, wherein the information related to the at least one target service provider includes location information of the at least one target service provider, and the at least one processor is further configured to direct the terminal device to perform additional operations including:

presenting, via the user interface, a location of the at least one target service provider on a map based on the location information of the at least one target service provider.

52. The terminal device of any one of claims 44 to 51, the at least one processor is further configured to direct the terminal device to perform additional operations including:

encrypting the request; and

the transmitting the request to a service platform including transmitting the encrypted request to the service platform.

53. The terminal device of claim 52, wherein the encrypted request includes authentication information associated with the terminal device or a user of the terminal device that allows the service platform to verify the terminal device or the
54. The terminal device of any one of claims 44 to 53, wherein the received information related to at least one target service provider is encrypted, and the at least one processor is further configured to direct the terminal device to perform additional operations including:

   decrypting the received information.

55. The terminal device of claim 54, wherein the received information includes authentication information associated with the terminal device or a user of the terminal device that allows authentication of the terminal device or the user.

56. A method, that is implemented on a computing device having at least one processor and at least one storage medium including a set of instructions for processing service requests received from requester terminals, comprising:

   receiving, from a requester terminal via a user interface of the requester terminal, a request for a plurality of first types of services;

   identifying one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services;

   transmitting the request to one or more provider terminals of the one or more service providers;

   receiving, from at least one target provider terminal of the one or more provider terminals, at least one response regarding the request, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers; and

   transmitting information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.
57. The method of claim 56, wherein:
   the information related to the at least one target service provider includes
   the at least one first type of service provided by the target service provider of the
   at least one target service provider.

58. The method of claim 56 or 57, further comprising:
   transmitting a first instruction to the requester terminal to present, via the
   user interface, a first element for requesting the plurality of first types of
   services, wherein receiving the request for the plurality of first types of services
   from the requester terminal includes receiving, from the requester terminal, a
   selection of the first element.

59. The method of claim 58, further comprising:
   transmitting a second instruction to the requester terminal to present, via the
   user interface, an indication element indicating availability of the first element.

60. The method of claim 58 or 59, wherein the transmitting a first instruction to the
requester terminal to present, via the user interface, a first element for requesting the
plurality of first types of services includes:
   determining a display order of the first element and a second element for
   requesting a second type of service; and
   transmitting the first instruction to the requester terminal to present, via the
   user interface, the first element and the second element according to the display
   order.

61. The method of any one of claims 56 to 60, wherein the identifying one or more
service providers in response to the request includes:
   selecting, among the plurality of first types of services, one or more target
types of services; and
identifying the one or more service providers, each of the one or more
service providers providing at least one target type of service of the one or more
target types of services.

62. The method of any one of claims 56 to 60, wherein the identifying one or more
service providers in response to the request further includes:
receIVING, FROM A plurality of candidate provider terminals associated with a
plurality of candidate service providers, location information of the plurality of
candidate service providers, each of the plurality of candidate service providers
providing at least one first type of service of the plurality of first types of
services, the location information being acquired using a location detection
mechanism of each of the plurality of candidate provider terminals; and
identifying, among the plurality of candidate service providers, the one or
more service providers based at least in part on the location information of the
plurality of candidate service providers.

63. The method of any one of claims 56 to 62, further comprising:
for at least one first type of service provided by the one or more service
providers, determining a service capacity of service providers of the at least one
first type of service; and
transmitting a third instruction to the requester terminal to present a
notification related to the service capacity of the service providers of the at least
one first type of service via the user interface.

64. The method of any one of claims 56 to 63, further comprising:
receiving, from at least one provider terminal of the one or more provider
terminals, location information related to at least one service provider associated
with the at least one provider terminal, the location information being acquired
using a location detection mechanism of each of the at least one provider
terminal; and
transmitting a fourth instruction to the requester terminal to present, via the
user interface, a location of the at least one service provider on a map based on
the location information of the at least one service provider.

65. The method of any one of claims 56 to 64, wherein the received request is
encrypted, and the method further includes:
decrypting the encrypted request.

66. The method of claim 65, wherein the decrypting the encrypted request includes:
verifying authentication information of the requester terminal or a user of the
requester terminal before the decrypting.

67. The method of any one of claims 56 to 66, further comprising:
encrypting the information of the at least one target service provider for
presentation on the requester terminal via the user interface; and
transmitting the encrypted information to the requester terminal.

68. The method of claim 67, wherein the encrypted information includes
authentication information of the requester terminal or a user of the requester
terminal to authenticate the requester terminal or the user.

69. A method, that is implemented on a terminal device having a user interface, at
least one processor, and at least one storage medium including a set of instructions
for processing service requests, comprising:
transmitting, to a service platform, a request for a plurality of first types of
services;
receiving, from the service platform, information related to at least one target
service provider, the at least one target service provider providing at least one first type of service of the plurality of first types of services; and presenting, via the user interface, the information related to the at least one target service provider.

70. The method of claim 69, wherein:
the information related to the at least one target service provider includes the at least one first type of service provided by the at least one target service provider.

71. The method of claim 69 or 70, wherein the transmitting a request for a plurality of first types of services to a service platform includes:
presenting, via the user interface, a first element for requesting the plurality of first types of services; and upon receiving a selection of the first element, transmitting the request for the plurality of first types of services to the service platform.

72. The method of claim 71, further comprising:
presenting, via the user interface, an indication element indicating availability of the first element.

73. The method of claim 71 or 72, wherein the presenting a first element for requesting the plurality of first types of services via the user interface includes:
receiving, from the service platform, a display order of the first element and a second element for requesting a second type of service; and presenting, via the user interface, the first element and the second element according to the display order.

74. The method of claim 71 or 72, wherein the presenting a first element for
requesting the plurality of first types of services via the user interface further includes:

presenting, via the user interface, the first element and a portion of a second element for requesting a second type of service; or

presenting, via the user interface, the second element and a portion of the first element.

75. The method of claim 74, further including:

upon detecting an action directed to a predetermined area of the user interface, presenting the first element or the second element via the user interface.

76. The method of any one of claims 69 to 75, wherein the information related to the at least one target service provider includes location information of the at least one target service provider, and the method further comprises:

presenting, via the user interface, a location of the at least one target service provider on a map based on the location information of the at least one target service provider.

77. The method of any one of claims 69 to 76, further comprising:

encrypting the request; and

the transmitting the request to a service platform including transmitting the encrypted request to the service platform.

78. The method of claim 77, wherein the encrypted request includes authentication information associated with the terminal device or a user of the terminal device that allows the service platform to verify the terminal device or the user.

79. The method of any one of claims 69 to 78, wherein the received information
related to at least one target service provider is encrypted, and the method further comprises:

decrypting the received information.

80. The method of claim 79, wherein the received information includes authentication information associated with the terminal device or a user of the terminal device that allows authentication of the terminal device or the user.

81. A system for processing service requests received from requester terminals, comprising:

an obtaining module configured to receive a request for a plurality of first types of services from a requester terminal via a user interface of the requester terminal;

an identification module configured to identify one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services;

a transmission module configured to transmit the request to one or more provider terminals of the one or more service providers;

the obtaining module being further configured to receive at least one response regarding the request from at least one target provider terminal of the one or more provider terminals, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers; and

the transmission module being further configured to transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

82. A terminal device, comprising:

a communication module configured to transmit a request for a plurality of first types of services to a service platform;

the communication module further configured to receive information related to at
least one target service provider from the service platform, the at least one target service provider providing at least one first type of service of the plurality of first types of services; and

a presentation module configured to present the information related to the at least one target service provider via a user interface.

83. A non-transitory computer-readable storage medium embodying a computer program product, the computer program product comprising instructions configured to cause a computing device to:

receive, from a requester terminal via a user interface of the requester terminal, a request for a plurality of first types of services;

identify one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services;

transmit the request to one or more provider terminals of the one or more service providers;

receive, from at least one target provider terminal of the one or more provider terminals, at least one response regarding the request, each of the at least one target provider terminal being associated with a target service provider of the one or more service providers; and

transmit information related to the at least one target service provider to the requester terminal for presentation on the requester terminal via the user interface.

84. A non-transitory computer-readable storage medium embodying a computer program product, the computer program product comprising instructions configured to cause a computing device to:

transmit, to a service platform, a request for a plurality of first types of services;
receive, from the service platform, information related to at least one target service provider, the at least one target service provider providing at least one first type of service of the plurality of first types of services; and

present, via a user interface, the information related to the at least one target service provider.
FIG. 1
FIG. 2
FIG. 3
FIG. 4

112

Obtaining Module

Identification Module

Transmission Module

Determination Module
500

Receiving, from a requester terminal via a user interface of a requester terminal, a request for a plurality of first types of services

510

Identifying one or more service providers in response to the request, each of the one or more service providers providing at least one first type of service of the plurality of first types of services

520

Transmitting the request to one or more provider terminals of the one or more service providers

530

For at least one first type of service provided by the one or more identified service providers, determining a service capacity of service providers of the at least one first type of service

540

Transmitting an instruction to the requester terminal to present, via the user interface, a notification related to the service capacity of the service providers of the at least one first type of service

550

Receiving, from at least one target provider terminal of the one or more provider terminals, at least one response regarding the request, each of the at least one target provider terminal being associated with a target service provider

560

Transmitting information related to the at least one target provider terminal to the requester terminal for presentation on the requester terminal via the user interface

570

FIG. 5
Transmitting a first instruction to the requester terminal to present, via a user interface, a first element for requesting the plurality of first types of services

Transmitting a second instruction to the requester terminal to present, via the user interface, an indication element indicating availability of the first element

Receiving, from the requester terminal, a selection of the first element

FIG. 6
700

Determining a display order of the first element and a second element for requesting a second type of service

Transmitting the first instruction to the requester terminal to present, via the user interface, the first element and the second element according to the display order

FIG. 7
FIG. 8
Transmitting, to a service platform, a request for a plurality of first types of services

Receiving, from the service platform, information related to at least one target service provider, the at least one target service provider providing at least one first type of service of the plurality of first types of services

Presenting, via the user interface, the information related to the at least one target service provider

FIG. 9
1000

Presenting, via a user interface, a first element for requesting the plurality of first types of services

1010

Presenting, via the user interface, an indication element indicating availability of the first element

1020

Upon receiving a selection of the first element, transmitting the request for the plurality of first types of services to the service platform

1030

FIG. 10
1100

Receiving, from the service platform, a display order of the first element and a second element for requesting a second type of service

1110

Presenting, via the user interface, the first element and the second element according to the display order, wherein a portion of the first element or a portion of the second element is presented

1120

Upon detecting an action directed to a predetermined area of the user interface, presenting the first element or the second element via the user interface

1130

FIG. 11
Hailing Vehicles

Carpool  Taxi  Express  Taxi

Pick-up Location

Hailing at the same time

Hailing express car, premium car, and taxi at the same time

FIG. 12
Hailing vehicles at the same time to get a quicker response

[Hailing at the same time] comes online

Hailing at the same time  Carpool  Express Car

FIG. 13
FIG. 14

Hailing express car, premium car, and taxi at the same time

Hailing at the same time

Pick-up Location

Carpool

Taxi

Express

Taxi

1200

1202

1203

1204

1205
FIG. 15
Waiting for the Driver

Distance: 0.4km
Time: 1 min

License Plate: Black Toyota Corolla
Mr. Wu ★ 4.9
320 orders

Send messages to the driver
Call the driver

The driver of the express is arriving soon!

FIG. 16
Waiting for Response

Hailing the following types of vehicles at the same time because of the insufficient service capacity:

- Express No. 26, Waiting for 8 mins
- Premium Car No. 8, Waiting for 8 mins
- Taxi, Hailing

FIG. 17
Waiting for Response

Searching vehicles for you

Hailing the following types of vehicles at the same time because of insufficient transportation capacity:

- Express No. 26 (Waiting for 8 mins)
- Premium Car (Hailing)
- Taxi (Hailing)

FIG. 18
Waiting for Response

Searching vehicles for you

Hailing express cars, taxis, and premium cars at the same time

FIG. 19
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER

H04L 29/08(2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04L; H04W: G06Q; G08G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CPRSABS, CNABS, CNTXT, CNKI, VEN, EPTXT, USTXT, WOTXT, GBTXT: Take a taxi, book, request, query, taxi+, SUV, vehicle?, transport, pick up, locaiton, capacity, type?, Uber, User interface, order, hitch, hike

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>US 2013132887 A1 (UBER TECHNOLOGIES INC.) 23 May 2013 (2013-05-23) the abstract, description, paragraphs, [0013]-[0021], [0027]-[0043], [0054]-[0093], [0101]-[0127], figures 2, 3C-9</td>
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- Further documents are listed in the continuation of Box C.

- See patent family annex.

- * Special categories of cited documents:
  - "A" document defining the general state of the art which is not considered to be of particular relevance
  - "E" earlier application or patent but published on or after the international filing date
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  - "O" document referring to an oral disclosure, use, exhibition or other means
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  - "&" document member of the same patent family

- Date of the actual completion of the international search: 12 April 2019
- Date of mailing of the international search report: 22 April 2019

Name and mailing address of the ISA/CN
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China

Authorized officer
Zhang, Xin

Facsimile No. (86-10)62019451
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