CLAIMS

[Claim 1] A method of providing a direct order performed by a server, the method comprising:

identifying delivery orders comprising information on a departure location and a delivery location;

extracting, from among wireless terminals registered in the server, wireless terminals to which a direct order is not assigned;

determining a wireless terminal to receive a direct order among the delivery orders from among the extracted wireless terminals, based on terminal positions of the extracted wireless terminals, and a departure location and a delivery location of the direct order; and

providing the direct order to the determined wireless terminal; and

wherein the determining of the wireless terminal to receive the direct order comprises determining the wireless terminal to receive the direct order, based on a number of delivery orders assigned to the extracted wireless terminals and a limit of delivery orders of each of the extracted wireless terminals.

[Claim 2] The method of claim 1, wherein the determining of the wireless terminal to receive the direct order comprises determining the wireless terminal to receive the direct order, based on a distance between the departure location and the terminal positions of the extracted wireless terminals.

[Claim 3] The method of claim 1 or claim 2, wherein the limit of delivery orders is a maximum number of delivery orders that may be assigned to each of the extracted wireless terminals.

[Claim 4] The method of any one of claims 1–3, wherein the limit of delivery orders of each of the extracted wireless terminals is determined according to:

i. the skill of a rider carrying a wireless terminal;

ii. the number of delivery orders occurring in a branch and the number of riders in that branch; and/or

iii. the means of transportation of a rider.

[Claim 5] The method of any one of claims 1–4, wherein the method further comprises determining a wireless terminal to receive the direct order further based on a delay time of pre-assigned general orders assigned to the extracted wireless terminals due to the direct order.

[Claim 6] The method of claim 5, wherein when pre-assigned general orders are assigned to one or more extracted wireless terminals, the delay time of pre-assigned general orders assigned to that one or more extracted wireless terminals is determined as a difference between a third required time and a sum of a first required time and a second required time, wherein:

i. the first required time is a determined time for the direct order to be processed, based on the terminal position of that one or more extracted wireless terminals and the departure location and the delivery location of the direct order,

ii. the second required time is a determined time for the pre-assigned general orders assigned to that one or more extracted wireless terminals to be processed, based on the delivery location of the direct order and the departure location and the delivery location of the pre-assigned general orders, and

iii. the third required time is a determined time for all pre-assigned general orders to be processed, based on the terminal position of that one or more extracted wireless terminals and the departure location and the delivery location of the pre-assigned general orders.

[Claim 7] The method of any one of claims 1–4, wherein the method further comprises determining one or more wireless terminals to receive the direct order from among the extracted wireless terminals to which a general order is not assigned and has a sum of a first required time and a second required equal to or less than a limit time, wherein:

i. the first required time is a determined time for the direct order to be processed, based on the terminal position of that one or more extracted wireless terminals and the departure location and the delivery location of the direct order, and

ii. the second required time is a determined time for pre-assigned general orders

assigned to that one or more extracted wireless terminals to be processed, based on the delivery location of the direct order and the departure location and the delivery location of pre-assigned general orders.

[Claim 8] The method of claim 7, wherein the limit time is determined according to a ratio of the number of delivery orders and a number of extracted wireless terminals.

[Claim 9] A method of providing a direct order performed by a server, the method comprising:

identifying delivery orders comprising information on a departure location and a delivery location;

transmitting a list comprising the delivery orders to wireless terminals registered in the server;

receiving, from one wireless terminal among the wireless terminals, a direct order included in the list and information on the wireless terminal, wherein the information on the wireless terminal comprises a terminal position of the wireless terminal;

providing the direct order to the wireless terminal; and

wherein the providing of the direct order comprises providing the direct order to the wireless terminal when the number of delivery orders assigned to the wireless terminal is equal to or less than a reference number.

[Claim 10] The method of claim 9, wherein the information on the wireless terminal comprises i) a number of delivery orders assigned to the wireless terminal, ii) a terminal identification (ID) of the wireless terminal, and iii) a limit of delivery orders of the wireless terminal.

[Claim 11] A method of providing a direct order performed by a wireless terminal of a rider, the method comprising:

transmitting information on the wireless terminal to a server, wherein the information on the wireless terminal comprises a terminal position of the wireless terminal;

receiving a direct order comprising information on a departure location and a delivery location from the server;

displaying the departure location and the delivery location of the direct order on a display of the wireless terminal; and

locking a delivery list of the wireless terminal until the direct order is processed; and

wherein the locking of the delivery list comprises, when at least one general order is pre-assigned to the wireless terminal, locking the delivery list of the wireless terminal until the direct order and the at least one pre-assigned general order are processed.

[Claim 12] The method of claim 11, wherein the information on the wireless terminal further comprises a terminal identification (ID) of the wireless terminal.

[Claim 13] A method of providing a direct order performed by a wireless terminal of a rider, the method comprising:

receiving a list comprising delivery orders comprising information on a departure location and a delivery location from a server;

displaying the list on a display of the wireless terminal;

transmitting a delivery order that is a direct order among the delivery orders included in the list, and a terminal position of the wireless terminal to the server; and

locking a delivery list of the wireless terminal until the direct order is processed; and

wherein the locking of the delivery list comprises, when at least one general order is pre-assigned to the wireless terminal, locking the delivery list of the wireless terminal until the direct order and the at least one pre-assigned general order are processed.

[Claim 14] A non-transitory computer-readable storage medium storing instructions that, when executed by a processor, cause the processor to perform the method of one of claims 1 to 13.

[Claim 15] A server for performing a method of providing a direct order, the server comprising:

a processor configured to identify delivery orders comprising information on a departure location and a delivery location, extract, from among wireless terminals registered in the server, wireless terminals to which a direct order is not assigned, determine a wireless

terminal to receive a direct order among the delivery orders from among the extracted wireless terminals, based on terminal positions of the extracted wireless terminals, and a departure location and a delivery location of the direct order, and provide the direct order to the determined wireless terminal, wherein the processor is configured to determine the wireless terminal to receive the direct order, based on a number of delivery orders assigned to the extracted wireless terminals and a limit of delivery orders of each of the extracted wireless terminals.

[Claim 16] The server of claim 9, wherein the processor is configured to determine the wireless terminal to receive the direct order based on a distance between the departure location and the terminal positions of the extracted wireless terminals.

[Claim 17] The method of claim 15 or claim 16, wherein the limit of delivery orders is a maximum number of delivery orders that may be assigned to each of the extracted wireless terminals.

[Claim 18] The method of any one of claims 15–17, wherein the limit of delivery orders of each of the extracted wireless terminals is determined according to:

i. the skill of a rider carrying a wireless terminal;
ii. the number of delivery orders occurring in a branch and the number of riders in that branch; and/or
iii. the means of transportation of a rider.

[Claim 19] A server for performing a method of providing a direct order, the server comprising:

a processor configured to identify delivery orders comprising information on a departure location and a delivery location, transmit a list comprising the delivery orders to wireless terminals registered in the server, receive, from one wireless terminal among the wireless terminals, a direct order included in the list and information on the wireless terminal, wherein the information on the wireless terminal comprises a terminal position of the wireless terminal, and provide the direct order to the wireless terminal, wherein the processor is configured to provide the direct order to the wireless terminal when the number of delivery orders assigned to the wireless terminal is equal to or less than a reference number.

[Claim 20] The server of claim 19, wherein the information on the wireless terminal further comprises i) a number of delivery orders assigned to the wireless terminal, ii) a terminal identification (ID) of the wireless terminal, and iii) a limit of delivery orders of the wireless terminal.

[Claim 21] A wireless terminal of a rider for performing a method of providing a direct order, the wireless terminal comprising:

a processor configured to transmit information on the wireless terminal to a server, wherein the information on the wireless terminal comprises a terminal position of the wireless terminal, receive a direct order comprising information on a departure location and a delivery location from the server, display the departure location and the delivery location of the direct order on a display of the wireless terminal, and lock a delivery list of the wireless terminal until the direct order is processed, wherein the processor is configured to, when at least one general order is pre-assigned to the wireless terminal, lock the delivery list of the wireless terminal until the direct order and the at least one pre-assigned general order are processed.

[Claim 22] The wireless terminal of claim 21, wherein the information on the wireless terminal further comprises a terminal identification (ID) of the wireless terminal.

[Claim 23] A wireless terminal of a rider for performing a method of providing a direct order, the wireless terminal comprising:

a processor configured to receive a list comprising delivery orders comprising information on a departure location and a delivery location from a server, display the list on a display of the wireless terminal, transmit a delivery order that is a direct order among the delivery orders included in the list, and a terminal position of the wireless terminal to the server, and lock a delivery list of the wireless terminal until the direct order is processed, wherein the processor is configured to, when at least one general order is pre-assigned to the wireless terminal, lock the delivery list of the wireless terminal until the direct order and the at least one pre-assigned general order are processed.