Claims

What is claimed is:

1. A computer-implemented system for automated reshipment scheduling, comprising:

at least one processor;

a memory comprising instructions that, when executed by the at least one processor, performs steps comprising:

receiving aggregated information comprising an order, a first package identifier associated with a first package, the first package containing one or more items, and event data associated with a plurality of package identifiers that include the first package identifier, the order comprising a first group of items,

the first package associated with a first recipient and a scheduled delivery time;

parsing the event data based on the first package identifier;

determining whether the first package was not delivered based on the parsed event data;

based on determining that the first package was not delivered:

flagging the first package identifier as meeting a first condition;

cancelling a portion of the order corresponding to the first package;

determining a current time;

determining a plurality of cutoff times, each cutoff time in the plurality of cutoff times being associated with a delivery wave;

determining, based on a comparison between the plurality of cutoff times and the current time, a new scheduled delivery time associated with a delivery wave; and

creating a new order for a second package containing the one or more items contained in the first package; and

transmitting instructions to a mobile device to deliver the new order, based on the delivery wave associated with the new scheduled delivery time.

2. The computer-implemented system of claim 1, wherein the cutoff time is associated with the first package and the delivery wave.

3. The computer-implemented system of claim 2, wherein the delivery wave comprises a predetermined period of time during which the first package is intended to be delivered.

4. The computer-implemented system of claim 3, wherein each day is associated with a plurality of delivery waves, each delivery wave being associated with a cutoff time and a delivery time period, the respective cutoff time occurring before the respective delivery time period.

5. The computer-implemented system of claim 1, wherein parsing the event data comprises:

filtering the event data to isolate the event data associated with the first package identifier;

parsing the isolated event data to determine a temporal relationship;

determining a chronological sequence based on the isolated event data and the determined temporal relationship; and

determining the status of the first package based on the chronological sequence.

6. The computer-implemented system of claim 5, wherein the new scheduled delivery time is determined by:

determining at least one reason why the first package was not delivered based on the chronological sequence;

determining an urgency code based on the determined reason;

based on the determined urgency code, determining a delivery wave for delivering the first package.

7. The computer-implemented system of claim 6, wherein the at least one reason is selected from the group of:

the first package was not outbounded,

the first package was undelivered due to customer fault,

the first package was undelivered due to excess capacity,

the first package was undelivered due to lack of resources,

the first package was undelivered due to loss, or

the first package was undelivered due to damage.

8. The computer-implemented system of claim 1, wherein flagging the package identifier as meeting a first condition further comprises updating a parameter associated with the package identifier to indicate that the first package should be delivered more quickly.

9. The computer-implemented system of claim 7, wherein the steps further comprise:

determining that the parameter associated with the first package identifier indicates that the first package should be delivered more quickly;

based on the determination, configuring the instructions to be sent to a mobile device to indicate that the first package was not delivered.

10. The computer-implemented system of claim 9, wherein the steps further comprise:

creating a new route optimized for delivering the new package.

11. A method for automated reshipment scheduling, comprising:

receiving aggregated information comprising an order, a first package identifier associated with a first package, the first package containing one or more items, and event data associated with a plurality of package identifiers that include the first package identifier, the order comprising a first group of items,

the first package associated with a first recipient and a scheduled delivery time;

parsing the event data based on the first package identifier;

determining whether the first package was not delivered based on the parsed event data;

based on determining that the first package was not delivered:

flagging the first package identifier as meeting a first condition;

determining a current time;

determining a plurality of cutoff times, each cutoff time in the plurality of cutoff times being associated with a delivery wave;

determining, based on a comparison between the plurality of cutoff times and the current time, a new scheduled delivery time associated with a delivery wave; and

transmitting instructions to a mobile device to create a new order for a second package containing the one or more items contained in the first package based on the delivery wave associated with the new scheduled delivery time.

12. The method of claim 11, wherein the cutoff time is associated with the first package and the delivery wave.

13. The method of claim 12, wherein the delivery wave comprises a predetermined period of time during which the first package is intended to be delivered.

14. The method of claim 13, wherein each day is associated with a plurality of delivery waves, each delivery wave being associated with a cutoff time and a delivery time period, the respective cutoff time occurring before the respective delivery time period.

15. The method of claim 11, wherein parsing the event data comprises:

filtering the event data to isolate the event data associated with the first package identifier;

parsing the isolated event data to determine a temporal relationship;

determining a chronological sequence based on the isolated event data and the determined temporal relationship; and

determining the status of the first package based on the chronological sequence.

16. The method system of claim 15, wherein the new scheduled delivery time is determined by:

determining at least one reason why the first package was not delivered based on the chronological sequence;

determining an urgency code based on the determined reason;

based on the determined urgency code, determining a delivery wave for delivering the first package.

17. The computer-implemented system of claim 11, wherein flagging the package as meeting a first condition identifier comprises updating a parameter associated with the package identifier to indicate that the first package should be delivered more quickly.

18. The computer-implemented system of claim 17, wherein the steps further comprise:

determining that the parameter associated with the first package identifier indicates that the first package should be delivered more quickly;

based on the determination, configuring the instructions to be sent to a mobile device to indicate that the first package was not delivered.

19. The computer-implemented system of claim 19, wherein the steps further comprise:

creating a new route optimized for delivering the new package.

20. A computer-implemented system for automated reshipment scheduling comprising:

at least one processor;

a memory comprising instructions that, when executed by the at least one processor, performs steps comprising:

receiving aggregated information comprising an order, a first package identifier associated with a first package, the first package containing one or more items, and event data associated with a plurality of package identifiers that include the first package identifier, the order comprising a first group of items,

the first package associated with the first group of items, and is to be delivered to a first recipient within a first predetermined period of time through one or more existing routes;

parsing the event data based on the first package identifier;

determining whether the first package exists based on the parsed event data, wherein:

if it is determined that the first package does not exist,

flagging the first package identifier as meeting a first condition; and

if it is determined that the first package does exist,

determining whether the first package was not delivered because of lack of resources, wherein:

if it is determined that the first package was not delivered because of lack of resources,

flagging the first package identifier as meeting a second condition if the first predetermined period of time has passed by more than a first threshold.

based on the determinations:

determining a current time;

determining a plurality of cutoff times;

determining, based on a comparison between the plurality of cutoff times and the current time, a new scheduled delivery time associated with a delivery wave; and

transmitting instructions to a mobile device to create a new order for a second package containing the one or more items

contained in the first package based on the delivery wave associated with the new scheduled delivery time.