CLAIMS

What is claimed is:

1. A computer system comprising:

at least one processor, wherein the computer system is configured for:

(A) receiving capacity information associated with a first attended delivery/pickup location, wherein:

i) the first attended delivery/pickup location comprises:

1) a location, other than a residence or employer associated with a first parcel recipient; and

2) a storage area comprising a volume for storing at least one accepted parcel; and

ii) the capacity information comprises a total volume of the storage area for storing one or more accepted parcels;

(B) determining an estimated average storage time for an average parcel stored at the first attended delivery/pickup location;

(C) receiving first delivery information associated with one or more parcels associated with the first parcel recipient, wherein the first delivery information comprises:

i) a first estimated time of delivery associated with the one or more parcels associated with the first parcel recipient;

ii) a first indication of the first parcel recipient to pick up the one or more parcels at the first attended delivery/pickup location; and

iii) an estimated volume of the one or more parcels associated with the first parcel recipient;

(D) estimating the capacity of the first attended delivery/pickup location at the estimated time of delivery of the one or more parcels based at least in part on:

i) the capacity information associated with the first attended delivery/pickup location;

ii) the estimated storage time for the average parcel stored at the first attended delivery/pickup location;

(E) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the

estimated time of delivery based at least in part the estimated capacity of the first attended delivery/pickup location and the estimated volume of the one or more parcels associated with the first parcel recipient; and

(F) at least partially in response to determining that the first attended delivery/pickup location will not have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery, facilitating routing the one or more parcels associated with the first parcel recipient to a first alternate attended delivery/pickup location, wherein:

i) the first alternate attended delivery/pickup location comprises an alternate attended delivery/pickup location that is different than the first attended delivery/pickup location; and

ii) the first alternate attended delivery/pickup location and the first attended delivery/pickup location are within a network of attended delivery/pickup locations.

2. The computer system of Claim 1, wherein:

(A) the first delivery information further comprises one or more characteristics of the one or more parcels associated with the first parcel recipient; and

(B) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery is further at least partially based on the one or more characteristics of the one or more parcels associated with the first parcel recipient.

3. The computer system of Claim 3, wherein the one or more characteristics of the one or more parcels associated with the first parcel recipient are characteristics selected from the group consisting of:

(A) an estimated volume of the one or more parcels;

(B) an estimated density of the one or more parcels;

(C) an estimated weight of the one or more parcels; and

(D) estimated dimensions of the one or more parcels.

4. The computer system of Claim 2, wherein the computer system is further configured for, at least partially in response to determining that the particular delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery, facilitating routing the one or more parcels associated with the first parcel recipient to the first attended delivery/pickup location.

5. The computer system of Claim 4, wherein the computer system is further configured for:

(A) receiving second delivery information associated with one or more parcels associated with a second parcel recipient, wherein the delivery information comprises:

i) a second estimated time of delivery associated with the one or more parcels associated with the second parcel recipient;

ii) one or more characteristics of the one or more parcels associated with the second parcel recipient; and

iii) an indication of the second parcel recipient to pick up the one or more parcels at the first attended delivery/pickup location;

(B) estimating the capacity of the first attended delivery/pickup location at the second estimated time of delivery associated with the one or more parcels associated with the second parcel recipient based at least in part on:

i) the capacity information associated with the first attended delivery/pickup location;

ii) the estimated storage time for the average parcel stored at the first attended delivery/pickup location; and

iii) the one or more characteristics of the one or more parcels associated with the first parcel recipient;

(C) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the second parcel recipient at the second estimated time of delivery based at least in part on estimating the capacity of the first delivery/pickup location; and

(D) at least partially in response to determining that the particular delivery/pickup location will not have sufficient capacity to receive the one or more parcels associated with the second parcel recipient at the second estimated time of delivery, facilitating routing the one or more parcels associated with the second parcel recipient to a second alternative attended delivery/pickup location.

6. The computer system of Claim 5, wherein the first alternative attended delivery/pickup location and the second attended delivery/pickup location are a particular attended delivery/pickup location.

7. The computer system of Claim 1, wherein the capacity information associated with the first attended delivery/pickup location further comprises an indication of a volume of one or more accepted parcels expected to be delivered to the first attended delivery/pickup location approximately before the first estimated time of delivery of the one or more parcels associated with the first parcel recipient.

8. The computer system of Claim 7, wherein determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery comprises determining whether the estimated capacity will be at or about a percentage of the volume of the storage area at the first estimated time of delivery of the one or more parcels associated with the first parcel recipient.

9. The computer system of Claim 8, wherein the percentage of the volume is about ninety-five percent.

10. The computer system of Claim 8, wherein the estimated average storage time for the average parcel stored at the first attended delivery/pickup location is at least partially based on:

(A) a number of parcels previously delivered to the first attended delivery/pickup location associated with the first parcel recipient; and

(B) an average storage time for the number of parcels previously delivered to the first attended delivery/pickup location associated with the first parcel recipient.

11. The computer system of Claim 8, wherein the estimated average storage time for the average parcel stored at the first attended delivery/pickup location is at least partially based on:

(A) a number of parcels previously delivered to the first attended delivery/pickup location for a predetermined period of time; and

(B) an average storage time for the number of parcels previously delivered to the first attended delivery/pickup location for the predetermined period of time.

12. The computer system of Claim 1, wherein the attended delivery/pickup location is a location selected from the group consisting of:

(A) a gas station;

(B) a convenience store;

(C) a retail location; and

(D) a kiosk at a mall.

13. The computer system of Claim 1, wherein facilitating routing the one or more parcels associated with the first parcel recipient to a first alternative attended delivery/pickup location comprises transmitting a message to the first parcel recipient suggesting requesting delivery to the first alternate attended delivery/pickup location.

14. The computer system of Claim 1, wherein the estimated volume of the one or more parcels is based at least in part on a category of each of the one or more parcels selected from a group consisting of: (i) a large parcel; and (ii) a small parcel.

15. A non-transitory computer-readable medium storing computer executable instructions for:

(A) receiving a request to have one or more parcels associated with a particular parcel recipient of a plurality of parcel recipients delivered to a particular attended delivery/pickup location, wherein:

i) the particular attended delivery/pickup location comprises an area for storing one or more parcels for pickup by the plurality of parcel recipients;

ii) the particular attended delivery/pickup location is not a residence or employer associated with the particular parcel recipient; and

iii) the request to have the one or more parcels delivered to the particular attended delivery/pickup location comprises:

a) an estimated delivery time of the one or more parcels; and

b) an estimated volume of the one or more parcels;

(B) receiving capacity information associated with the particular attended delivery/pickup location, wherein the capacity information comprises:

i) a maximum capacity of the area for accepting one or more parcels for pickup, wherein the maximum capacity of the area for accepting one or more parcels for pickup is at least partially based on the volume of the area for storing the one or more parcels for pickup from the plurality of parcel recipients;

ii) a number of one or more parcels currently stored at the particular attended delivery/pickup location; and

iii) an average time one or more parcels are stored at the storage area;

(C) at least partially in response to receiving the request for having the one or more parcels associated the particular parcel recipient delivered to the particular attended delivery/pickup location, determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient based at least in part on:

i) the estimated volume of the one or more parcels;

ii) the estimated delivery time of the one or more parcels;

iii) the maximum capacity of the area for accepting one or more parcels for pickup;

iv) the number of one or more parcels currently stored at the particular attended delivery/pickup location; and

v) the average time one or more parcels are stored at the storage area; and

(D) at least partially in response to determining that the particular attended delivery/pickup location will not accept the one or more parcels associated with the particular parcel recipient, facilitating directing the one or more parcels to a predetermined alternative attended delivery/pickup location.

16. The non-transitory computer-readable medium of Claim 15, wherein the estimated volume of the one or more parcels includes dimensions of the one or more parcels.

17. The non-transitory computer-readable medium of Claim 16, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient is further based at least in part on how quickly the particular parcel recipient usually retrieves parcels from attended delivery/pickup locations.

18. The non-transitory computer-readable medium of Claim 17, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient comprises estimating the volume available at the particular attended delivery/pickup location to store the one or more parcels associated with the particular parcel recipient at the estimated delivery time of the one or more parcels associated with the parcel recipient.

19. The non-transitory computer-readable medium of Claim 18, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient comprises determining whether the volume available to store one or more parcels of the particular attended delivery/pickup location will be about ninety-five percent of the total volume of the area at the estimated delivery time of the one or more parcels associated with the parcel recipient.

20. A computer-implemented method, comprising:

(A) receiving, by at least one processor, capacity information associated with each of a plurality of attended delivery/pickup locations, wherein the attended delivery/pickup locations comprise businesses not primarily for receiving parcels;

(B) receiving, by at least one processor, an estimated storage time for an average parcel for each of the plurality of attended delivery/pickup locations, wherein the estimated storage time for the average parcel for each of the plurality of attended delivery/pickup locations is based at least in part on:

i) a number of parcels delivered to the plurality of attended delivery/pickup locations for a predetermined period of time; and

ii) an average storage time for the number of parcels delivered to the plurality of delivery/pickup locations for the predetermined period of time;

(C) receiving, by at least one processor, delivery information associated with one or more parcels associated with a particular parcel recipient, wherein the delivery information comprises:

i) an estimated time of delivery;

ii) an estimated volume of the one or more parcels comprising a number of parcels and an approximate volume of each of the one or more parcels; and

iii) an indication of a particular attended delivery/pickup location of the plurality of attended delivery/pickup locations in which the particular parcel recipient desires to pick up the one or more parcels;

(D) calculating, by at least one processor, an approximate capacity of the particular delivery/pickup location at the estimated time of delivery of the one or more parcels based at least in part on:

i) the capacity information associated with the particular attended delivery/pickup location;

ii) the estimated storage time for the average parcel for the particular attended delivery/pickup location; and

(E) determining, by at least one processor, whether the particular delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the particular parcel recipient based at least in part on: the estimated time of delivery, estimating the capacity

of the particular delivery/pickup location, and how quickly the particular parcel recipient usually retrieves parcels from attended delivery/pickup locations; and

(F) at least partially in response to determining that the particular delivery/pickup location will not have sufficient capacity of receive the one or more parcels associated with the particular parcel recipient at the estimated time of delivery, facilitating routing the one or more parcels associated with the particular parcel recipient to an alternative attended delivery/pickup location of the plurality of attended delivery/pickup locations.

CLAIMS

What is claimed is:

1. A computer system comprising:

at least one processor, wherein the computer system is configured for:

(A) receiving capacity information associated with a first attended delivery/pickup location, wherein:

i) the first attended delivery/pickup location comprises:

1) a location, other than a residence or employer associated with a first parcel recipient; and

2) a storage area comprising a volume for storing at least one accepted parcel; and

ii) the capacity information comprises a total volume of the storage area for storing one or more accepted parcels;

(B) determining an estimated average storage time for an average parcel stored at the first attended delivery/pickup location based at least in part on a respective length of time that each of a plurality of parcels is stored at the first attended delivery/pickup location before it is picked up;

(C) receiving first delivery information associated with one or more parcels associated with the first parcel recipient, wherein the first delivery information comprises:

i) a first estimated time of delivery associated with the one or more parcels associated with the first parcel recipient;

ii) a first indication of the first parcel recipient to pick up the one or more parcels at the first attended delivery/pickup location; and

iii) an estimated volume of the one or more parcels associated with the first parcel recipient;

(D) estimating the capacity of the first attended delivery/pickup location at the estimated time of delivery of the one or more parcels based at least in part on:

i) the capacity information associated with the first attended delivery/pickup location;

ii) the estimated storage time for the average parcel stored at the first attended delivery/pickup location;,

wherein estimating the capacity of the first attended delivery/pickup location at the estimated time of delivery comprises:

using the number of one or more currently stored parcels and the estimated storage time for the average parcel stored at the first attended delivery/pickup location to estimate a number of the one or more currently stored parcels that are likely to be picked up before the estimated time of delivery; and

using the number of the one or more currently stored parcels that are likely to be picked up before the estimated time of delivery and a current storage area usage to determine an unused storage area volume at the estimated time of delivery;

(E) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery based at least in part the estimated capacity of the first attended delivery/pickup location and the estimated volume of the one or more parcels associated with the first parcel recipient; and

(F) at least partially in response to determining that the first attended delivery/pickup location will not have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery, facilitating routing the one or more

parcels associated with the first parcel recipient to a first alternative attended delivery/pickup location, wherein:

i) the first alternative attended delivery/pickup location comprises an alternative attended delivery/pickup location that is different than the first attended delivery/pickup location; and

ii) the first alternative attended delivery/pickup location and the first attended delivery/pickup location are within a network of attended delivery/pickup locations.

2. The computer system of Claim 1, wherein:

(A) the first delivery information further comprises one or more characteristics of the one or more parcels associated with the first parcel recipient; and

(B) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery is further at least partially based on the one or more characteristics of the one or more parcels associated with the first parcel recipient.

3. The computer system of Claim2, wherein the one or more characteristics of the one or more parcels associated with the first parcel recipient are characteristics selected from the group consisting of:

(A) an estimated volume of the one or more parcels;

(B) an estimated density of the one or more parcels;

(C) an estimated weight of the one or more parcels; and

(D) estimated dimensions of the one or more parcels.

4. The computer system of Claim 2, wherein the computer system is further configured for, at least partially in response to determining that the first delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery, facilitating routing the one or more parcels associated with the first parcel recipient to the first attended delivery/pickup location.

5. The computer system of Claim 4, wherein the computer system is further configured for:

(A) receiving second delivery information associated with one or more parcels associated with a second parcel recipient, wherein the delivery information comprises:

i) a second estimated time of delivery associated with the one or more parcels associated with the second parcel recipient;

ii) one or more characteristics of the one or more parcels associated with the second parcel recipient; and

iii) an indication of the second parcel recipient to pick up the one or more parcels at the first attended delivery/pickup location;

(B) estimating the capacity of the first attended delivery/pickup location at the second estimated time of delivery associated with the one or more parcels associated with the second parcel recipient based at least in part on:

i) the capacity information associated with the first attended delivery/pickup location;

ii) the estimated storage time for the average parcel stored at the first attended delivery/pickup location; and

iii) the one or more characteristics of the one or more parcels associated with the first parcel recipient;

(C) determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the second parcel recipient at the second estimated time of delivery based at least in part on estimating the capacity of the first delivery/pickup location; and

(D) at least partially in response to determining that the first delivery/pickup location will not have sufficient capacity to receive the one or more parcels associated with the second parcel recipient at the second estimated time of delivery, facilitating routing the one or more parcels associated with the second parcel recipient to a second alternative attended delivery/pickup location.

6. The computer system of Claim 5, wherein the first alternative attended delivery/pickup location and the second alternative attended delivery/pickup location are a particular attended delivery/pickup location.

7. The computer system of Claim 1, wherein the capacity information associated with the first attended delivery/pickup location further comprises an indication of a volume of one or more accepted parcels expected to be delivered to the first attended delivery/pickup location approximately before the first estimated time of delivery of the one or more parcels associated with the first parcel recipient.

8. The computer system of Claim 7, wherein determining whether the first attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the first parcel recipient at the estimated time of delivery comprises determining whether the estimated capacity will be at or about a percentage of the volume of

the storage area at the first estimated time of delivery of the one or more parcels associated with the first parcel recipient.

9. The computer system of Claim 8, wherein the percentage of the volume is about ninety-five percent.

10. The computer system of Claim 8, wherein the estimated average storage time for the average parcel stored at the first attended delivery/pickup location is at least partially based on:

(A) a number of parcels previously delivered to the first attended delivery/pickup location associated with the first parcel recipient; and

(B) an average storage time for the number of parcels previously delivered to the first attended delivery/pickup location associated with the first parcel recipient.

11. The computer system of Claim 8, wherein the estimated average storage time for the average parcel stored at the first attended delivery/pickup location is at least partially based on:

(A) a number of parcels previously delivered to the first attended delivery/pickup location for a predetermined period of time; and

(B) an average storage time for the number of parcels previously delivered to the first attended delivery/pickup location for the predetermined period of time.

12. The computer system of Claim 1, wherein the attended delivery/pickup location is a location selected from the group consisting of:

(A) a gas station;

(B) a convenience store;

(C) a retail location; and

(D) a kiosk at a mall.

13. The computer system of Claim 1, wherein facilitating routing the one or more parcels associated with the first parcel recipient to a first alternative attended delivery/pickup location comprises transmitting a message to the first parcel recipient suggesting requesting delivery to the first alternative attended delivery/pickup location.

14. The computer system of Claim 1, wherein the estimated volume of the one or more parcels is based at least in part on a category of each of the one or more parcels selected from a group consisting of: (i) a large parcel; and (ii) a small parcel.

15. A non-transitory computer-readable medium storing computer executable instructions for:

(A) receiving a request to have one or more parcels associated with a particular parcel recipient of a plurality of parcel recipients delivered to a particular attended delivery/pickup location, wherein:

i) the particular attended delivery/pickup location comprises an area for storing one or more parcels for pickup by the plurality of parcel recipients;

ii) the particular attended delivery/pickup location is not a residence or employer associated with the particular parcel recipient; and

iii) the request to have the one or more parcels delivered to the particular attended delivery/pickup location comprises:

a) an estimated delivery time of the one or more parcels; and

b) an estimated volume of the one or more parcels;

(B) receiving capacity information associated with the particular attended delivery/pickup location, wherein the capacity information comprises:

i) a maximum capacity of the area for accepting one or more parcels for pickup, wherein the maximum capacity of the area for accepting one or more parcels for pickup is at least partially based on the volume of the area for storing the one or more parcels for pickup from the plurality of parcel recipients;

ii) a number of one or more parcels currently stored at the particular attended delivery/pickup location; and

iii) an average time one or more parcels are stored at the storage area;

(C) at least partially in response to receiving the request for having the one or more parcels associated the particular parcel recipient delivered to the particular attended delivery/pickup location, determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient based at least in part on:

i) the estimated volume of the one or more parcels;

ii) the estimated delivery time of the one or more parcels;

iii) the maximum capacity of the area for accepting one or more parcels for pickup;

iv) the number of one or more parcels currently stored at the particular attended delivery/pickup location; and

v) the average time one or more parcels are stored at the storage area for each of the plurality of parcel recipients,

wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient comprises:

using the number of one or more parcels currently stored at the particular attended delivery/pickup location and an estimated average storage time to estimate a number of the one or more parcels currently stored at the particular attended delivery/pickup location that are likely to be picked up before the estimated delivery time;

using the number of the one or more parcels currently stored at the particular attended delivery/pickup location that are likely to be picked up before the estimated delivery time, a volume of the one or more parcels currently stored at the particular attended delivery/pickup location, and a current storage area usage to determine an unused storage area volume at the estimated delivery time; and

determining whether the particular attended delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the particular parcel recipient at the estimated delivery time based at least in part on the unused storage area volume at the estimated delivery time and the estimated volume of the one or more parcels associated with the particular parcel recipient; and

(D) at least partially in response to determining that the particular attended delivery/pickup location will not accept the one or more parcels associated with the particular parcel recipient, facilitating directing the one or more parcels to a predetermined alternative attended delivery/pickup location.

16. The non-transitory computer-readable medium of Claim 15, wherein the estimated volume of the one or more parcels includes dimensions of the one or more parcels.

17. The non-transitory computer-readable medium of Claim 16, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient is further based at least in part on how quickly the particular parcel recipient usually retrieves parcels from attended delivery/pickup locations.

18. The non-transitory computer-readable medium of Claim 17, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient comprises estimating the volume available at the particular attended delivery/pickup location to store the one or more parcels associated with the particular parcel recipient at the estimated delivery time of the one or more parcels associated with the particular parcel recipient.

19. The non-transitory computer-readable medium of Claim 18, wherein determining whether the particular attended delivery/pickup location will accept the one or more parcels associated with the particular parcel recipient comprises determining whether the volume available to store one or more parcels of the particular attended delivery/pickup location will be about ninety-five percent of the total volume of the area at the estimated delivery time of the one or more parcels associated with the particular parcel recipient.

20. A computer-implemented method, comprising:

(A) receiving, by at least one processor, capacity information associated with each of a plurality of attended delivery/pickup locations, wherein the attended delivery/pickup locations comprise businesses not primarily for receiving parcels;

(B) receiving, by at least one processor, an estimated storage time for an average parcel for each of the plurality of attended delivery/pickup locations, wherein the estimated storage time for the average parcel for each of the plurality of attended delivery/pickup locations is based at least in part on:

i) a number of parcels delivered to the plurality of attended delivery/pickup locations for a predetermined period of time; and

ii) an average storage time for the number of parcels delivered to the plurality of delivery/pickup locations for the predetermined period of time;

(C) receiving, by at least one processor, delivery information associated with one or more parcels associated with a particular parcel recipient, wherein the delivery information comprises:

i) an estimated time of delivery;

ii) an estimated volume of the one or more parcels comprising a number of parcels and an approximate volume of each of the one or more parcels; and

iii) an indication of a particular attended delivery/pickup location of the plurality of attended delivery/pickup locations in which the particular parcel recipient desires to pick up the one or more parcels;

(D) calculating, by at least one processor, an approximate capacity of the particular delivery/pickup location at the estimated time of delivery of the one or more parcels based at least in part on:

i) the capacity information associated with the particular attended delivery/pickup location;

ii) the estimated storage time for the average parcel for the particular attended delivery/pickup location; and

(E) determining, by at least one processor, whether the particular delivery/pickup location will have sufficient capacity to receive the one or more parcels associated with the particular parcel recipient based at least in part on: the estimated time of delivery, estimating the capacity of the particular delivery/pickup location, and how quickly the particular parcel recipient usually retrieves parcels from attended delivery/pickup locations; and

(F) at least partially in response to determining that the particular delivery/pickup location will not have sufficient capacity of receive the one or more parcels associated with the particular parcel recipient at the estimated time of delivery, facilitating routing the one or more parcels associated with the particular parcel recipient to an alternative attended delivery/pickup location of the plurality of attended delivery/pickup locations.