CLAIMS

1. An item handling system for moving an item between an origin and a destination according to a first scheduled route which departs the origin at a first predetermined departure time, wherein the system comprises:

a. processing means configured to:

i. determine whether the item has missed the first predetermined departure time of the first scheduled route;

ii. determine the destination for the item;

iii. determine a new, second, scheduled route between the origin and the determined destination wherein the second scheduled route departs the origin at a second predetermined time which is different from the first predetermined time; and

iv. process the item according to the second scheduled route.

2. The item handling system according to claim 1 comprising:

b. storage means for storing first itinerary data associated with item, the first itinerary data comprising: the origin, the destination, the first predetermined departure time, and a physical path between the origin and destination according to the first scheduled route; and

c. reading means for reading a tracking means associated with the item, the tracking means being attachable to the item and having a machine-readable element,

wherein reading the machine-readable element via the reading means allows the processing means to access the storage means in order to:

retrieve the first itinerary data of the item to determine the item has missed the first predetermined departure time of the first scheduled route, and

if the item has missed the first predetermined departure time of the first scheduled route, add second itinerary data relating to the determined second scheduled route, the second itinerary data comprising: the second predetermined departure time and a physical path between the origin and destination according to the second scheduled route.

3. The item handling system according to claim 2 wherein when the machine-readable element is read via the reading means, the reading means generates item location data comprising a location and a time of the reading; and

the item location data and live departure data at the origin are monitored by the processing means to determine if the item missed the first predetermined departure time of the first scheduled route; and/or

wherein the tracking means is in the form of one or more of: a bag tag, a sticker label, and an RFID tag; and/or

wherein the storage means is a remote storage, and preferably a cloud-based storage.

4. The item handling system according to any preceding claim wherein, the second scheduled route has a physical path that is different from that of the first scheduled route; and/or

wherein, if the item has missed the first predetermined departure time of the first scheduled route, the item departs from a second departing point within the origin that is different from an first departing point within the origin according to the first scheduled route, preferably wherein the item handling system comprises one or more conveyor systems for routing the item, wherein the item is re-routed at least partially by at least one of the conveyor systems to the second departing point, preferably wherein the re-routing is performed without replacing or making physical modification to the tracking means associated with the item.

5. The item handling system according to any preceding claim wherein an arrival time at the destination based on the second scheduled route is transmitted to one or more user-accessible devices or systems at the destination; and/or

wherein the item handling system comprises a notification system for sending a message to a portable device of a passenger associated with the item, wherein a notification is sent to the portable device of the passenger if the processing means:

determines that the item has missed the first predetermined departure time of the first scheduled route; and/or

the second scheduled route has been determined.

6. The item handling system according to claim 1 wherein the notification comprises an arrival time at the destination based on the second scheduled route.

7. The item handling system according to any preceding claim wherein the item, after arriving at the destination, is further re-routed to a second destination.

8. The item handling system according to claim 7 wherein the processing means receives details relating to the second destination for the further re-routing from a passenger associated with the item.

9. The item handling system according to any preceding claim wherein the processing means is configured to receive messages relating to one or more factors that caused the item to miss the first predetermined departure time of the first scheduled route and/or one or more parties that are responsible for the one or more factors, preferably wherein the item handling system comprises a notification system for sending a message to one or more carriers and/or a portable device of a passenger associated with the item, wherein the notification system is configured to send a notification comprising details relating to the factors that caused the item to miss the first predetermined departure time of the first scheduled route and/or one or the more parties that are responsible for the one or more factors; and/or

wherein the second scheduled route between the origin and the determined destination is determined based on one or more parameters comprising at least one of: preferred carrier, departing time, loading capacity, and distance between a current location of the item and a point of departure; and/or.

wherein the origin is one of: an airport, a train station, a sea port, and a parcel handling hub.

10. A mobile device for communicating with an item handling system for moving an item between an origin and a destination, wherein if the item handling system determines that the item has been re-routed to a new, second, route to the destination that is different from an original, first, route to the destination, the mobile device is configured to receive a notification from the item handling system, the notification comprising details relating to the second route;

preferably wherein the notification comprises one or more of: a new departure time from the destination, a new arrival time at the destination, and a new physical path of the second route, and/or

wherein the notification comprises one or more factors that caused the item to be re-routed to the new route, and/or

wherein the mobile device is configured to receive a user input relating to a further destination for the item to be delivered.

11. A user-accessible device for communicating with an item handling system for moving an item between an origin and a destination, wherein if the item handling system determines that the item has been re-routed to a new, second, route to the destination that is different from an original, first, route to the destination, the user-accessible device being configured to:

i. receive second itinerary data from the item handling system, the second itinerary data comprising details relating to the second route; and
ii. display the second itinerary data to a passenger associated with the item.

12. The user-accessible device of claim 11 wherein the second itinerary data comprises one or more of: a new departure time from the destination, a new arrival time at the destination, and a new physical path of the second route; and/or

wherein the second itinerary data comprises one or more factors that caused the item to be re-routed to the new route; and/or

wherein the user-accessible device is configured to receive a user input relating to a further destination for the item to be delivered; and/or

wherein the user-accessible device is located at the destination; and/or

wherein the user-accessible device is an electronic board or a kiosk.

13. An item handling system for moving an item between an origin and a destination according to a first scheduled route which departs the origin at a first predetermined departure time, wherein the system comprises:

a. processing means;
b. storage means;

c. a reading means; and

d. at least one conveyor system for conveying the item

wherein the processing means is configured to:

i. receive data associated with a tracking means associated with the item;

ii. retrieve a first itinerary data associated with the data associated with the tracking means using the reading means;

iii. determine, based on the first itinerary data, if the item has missed a first predetermined departure time of the first scheduled route;

iv. if it is determined that the item has missed the first predetermined departure time, determine a new, second, route between the origin and the destination;

v. add second itinerary data relating to the determined second scheduled route to the storage means, the second itinerary data comprising: a second predetermined departure time, a departing point within the origin according to the second scheduled route, and a physical path between the origin and destination according to the first scheduled route; and

vi. control the at least one conveyor system to convey the item to the departing point.

14. A method for moving an item between an origin and a destination according to a first scheduled route which departs the origin at a first predetermined departure time, wherein the method comprises steps of:

i. determining whether the item has missed the first predetermined departure time of the first scheduled route;

ii. determining the destination for the item;

iii. determining a new, second, scheduled route between the origin and the determined destination wherein the second scheduled route departs the origin at a second predetermined time which is different from the first predetermined time; and

iv. processing the item according to the second scheduled route.

15. A method for moving an item between an origin and a destination according to a first scheduled route which departs the origin at a first predetermined departure time, wherein the method comprises steps of:

i. receiving data associated with a tracking means associated with the item;

ii. retrieving a first itinerary data associated with the data associated with the tracking means using the reading means;

iii. determining, based on the first itinerary data, if the item has missed a first predetermined departure time of the first scheduled route;

iv. if it is determined that the item has missed the first predetermined departure time, determining a new, second, route between the origin and the destination;

v. adding second itinerary data relating to the determined second scheduled route to a storage means, the second itinerary data comprising: a second predetermined departure time, a departing point within the origin according to the second scheduled route, and a physical path between the origin and destination according to the first scheduled route; and

vi. controlling at least one conveyor system to convey the item to the departing point.