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A SYSTEM AND METHOD FOR PARCEL VISIBILITY ENHANCEMENT ACROSS CARRIERS

ABSTRACT

A system and method to track parcels that are physically picked up and handled by multiple carriers is disclosed. The system creates an event scan in a server when a parcel label is scanned at a store. The event scan updates the parcel status, as well as customer orders. The packed parcels are sent to the fulfillment facility where it is scanned thereby updating the event scan. The parcels are placed into pallets which are scanned. The scanned pallets are tendered to the carrier(s), where they are scanned before transit. Linking the parcel scan to the pallet identity enables tracking of the parcel at the time of transit across multiple carriers. The system determines the progression of the parcels and grants live visibility across multiple carriers to a customer.

KEYWORDS: parcel tracking, multiple carriers, live status tracking, parcel traceability

BACKGROUND

Currently, there is no effective or consistent means in which to track parcels that are physically picked up and handled by multiple carriers. Store teams virtually hand off orders to carriers, which creates a blanket event for all parcels packed within a certain window. However, this data does not recognize parcels that may have physically been left behind in store. Certain carriers, such as national level carriers, are able to receive pickup scans as the driver retrieves orders. For others, such as regional level carriers, the first chain of custody only occurs at the sortation facility. When the labels are scanned at the level of pickup or at the sortation facility, the data creates an event scan in a control system, which updates the parcel status, as well as customer orders. There are two teams that are usually responsible for accountability of parcels,

fulfillment team and transportation team. The information interlude between different carriers creates a gray area for tracking parcel transit progress as well as for determining responsibility in case of missed delivery.

DESCRIPTION

A system and a method are disclosed that provide an enhanced real time visibility of a parcel when handled by multiple carriers. The system includes a server to store progression of parcel and share parcel visibility details with the customer, scanners for barcode, memory to store the scan information and analytics system to analyze the events to track the parcel as schematically depicted in FIG. 1.



FIG. 1: System to enhance visibility of a parcel

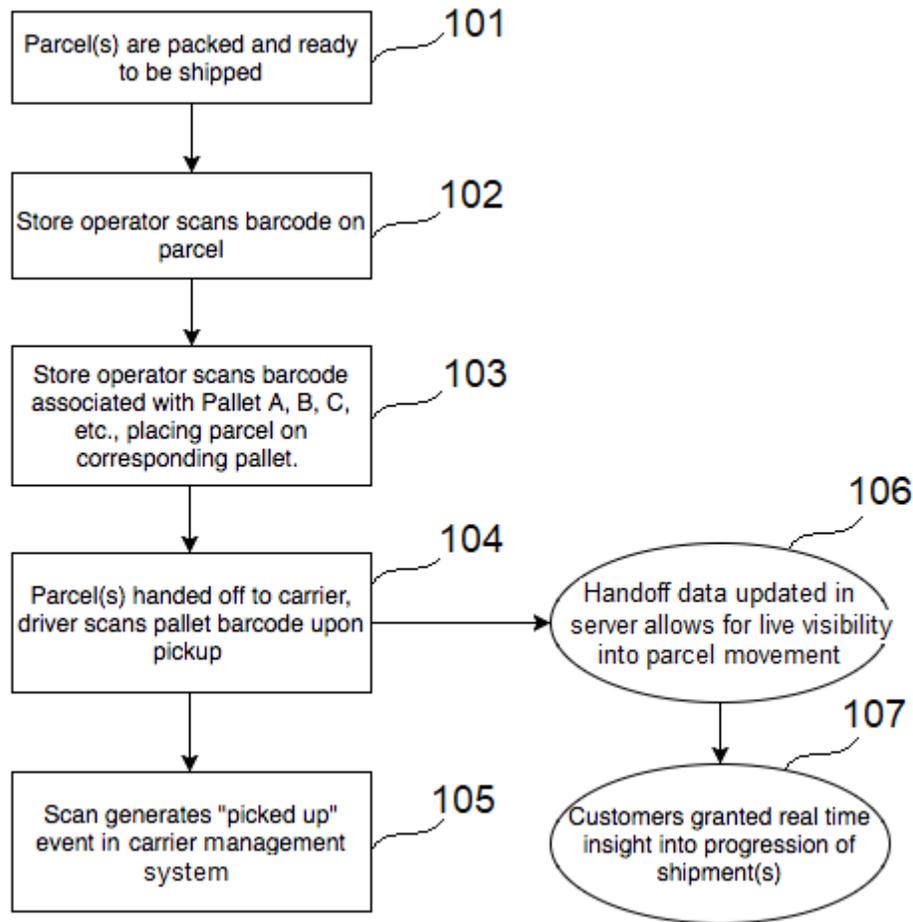


FIG. 2: Method of enhancing visibility of a parcel across multiple carriers

The method for enhancing the visibility of a parcel across multiple carriers is illustrated in FIG. 2. When a parcel label is scanned at a store, the data creates an event scan in a server, which updates the parcel status, as well as customer orders. In step **101**, the packed parcels are sent to the fulfillment facility. In step **102**, a barcode is printed on each parcel is scanned by a store operator. In step **103**, the parcel is placed into a designated pallet. Each pallet receives a unique scannable barcode. The barcode is then printed as a label on an exterior of the shrink wrapped pallet. In step **104**, the pallets are tendered to carrier(s) and the driver scans the pallet barcode, which gets updated into the server. At this stage the parcels are transferred from fulfillment team to the transportation team. In step **105**, the scan from step **104** generates a

“picked up” event and the parcel remains tracked until delivery. In step **106**, the optimized hand off scan updated to the server can be read by the customer, which allows for live visibility into parcels per pallet metrics. In **107**, the method grants real time insight into progression of shipment(s) throughout the transit until delivery.

The method allows for determining liability to the accountable team when there is a pickup or delivery issue. For instance, if the parcel(s) are not scanned by the store into a pallet and if the carrier(s) report as a shortage, the liability is placed with the fulfillment team. However, if the fulfillment parcel(s) are scanned into the pallet, and the carrier or the customer does not receive the parcel, liability falls on the transportation team.

Alternatively, for merchants that do not palletize and receive lower volume, parcels can be placed into reusable shipping bags for scanning.

Alternatively, once the data is recovered via scan, supplemental metrics can be gathered. Additional analytics may include parcel quantity per pallet, parcel volume per pickup, and insight into the root cause of shortages. Understanding the output of each store may allow effective pickups for the pallets. This ensures that the most favorable vehicle(s) are utilized and reduces in-network costs.

The system and method discloses techniques to optimize the visibility of a customer’s order clearly delineating culpability with instances of shortages and provides greater insight into related quality issues. The method allows devising traceability through automation, which may save cost from a transportation, quality, and labor standpoint. Also, this method allows personnel to recognize parcels that are physically left behind in the store and into pick up scans at the regional carrier level thereby establishing a definitive chain of parcel custody.