How to take Leap Frog Steps in Direct Store Delivery?

SUPPLIER → DRIVER → WAREHOUSE → DELIVERY AT RETAIL
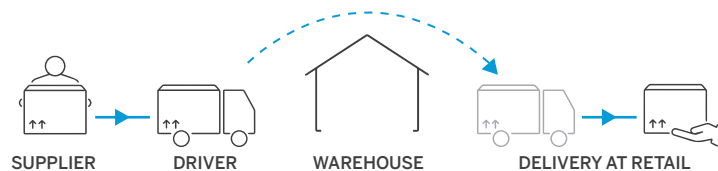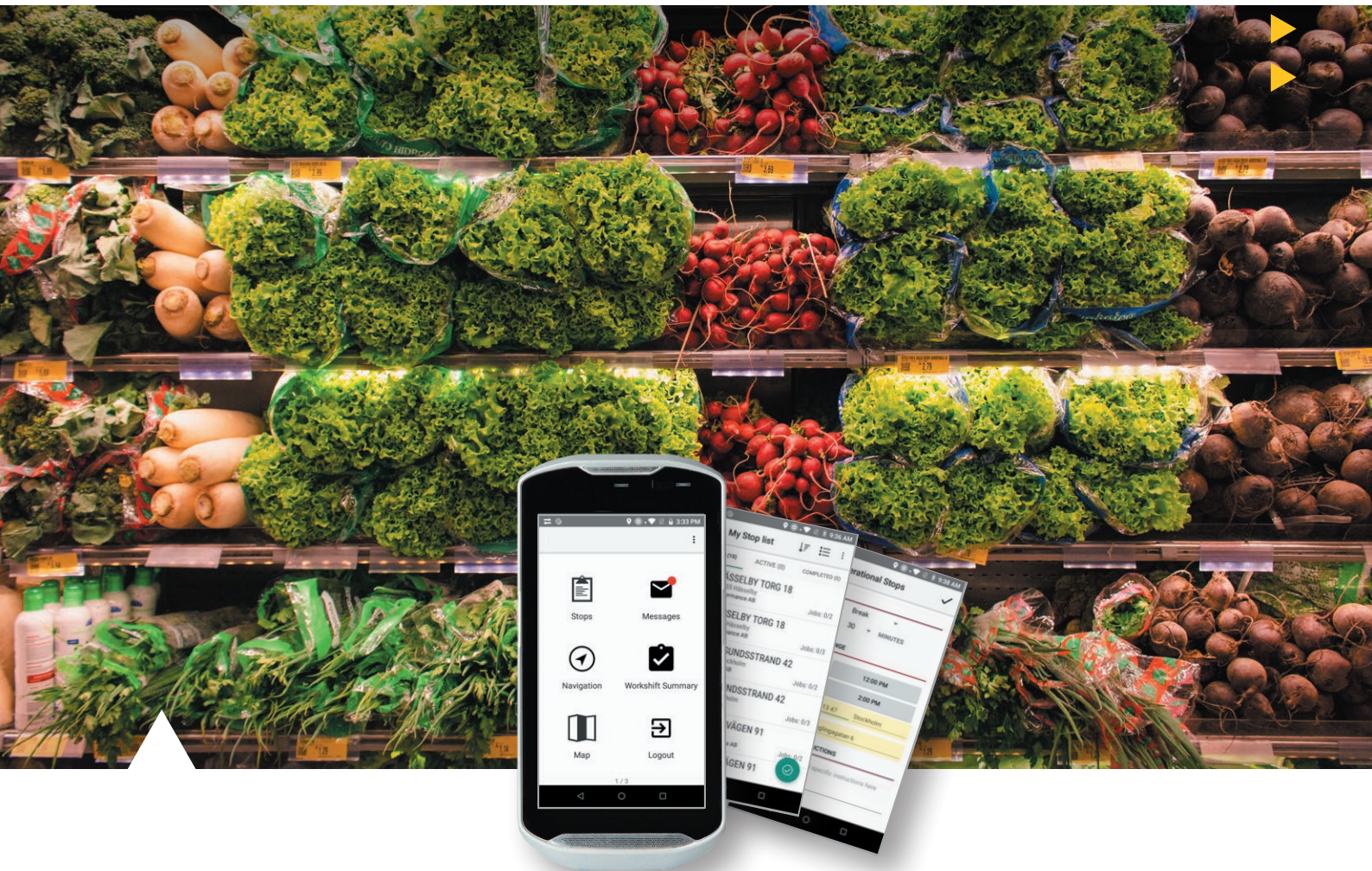
Excel your business with intelligent mobile software tools

Trimble Smartdelivery
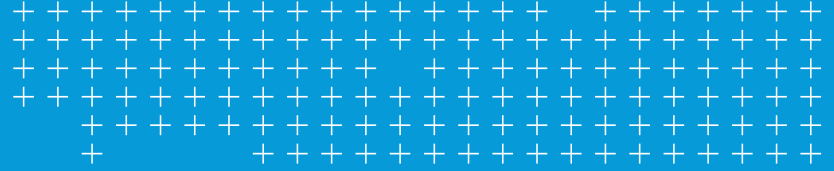
Key Takeaways

1 Adoption of the Direct Store Delivery method is rapidly spreading to many new industries

2 The retail store plays an important role in the omni channel concept. It often means an extended responsibility

3 The key drivers for change to DSD is the need to increase efficiency and adaptability

4 While the method offers some clear benefits, it does also introduce some specific requirements. One of the most important is the ability to efficiently handle small consignments

5 Intelligent mobile workflow tools offer efficient ways to manage and overcome many of the challenges that arise when using the Direct Store Delivery processes

Introduction

Adoption of the Direct Store Delivery "DSD" method is rapidly spreading to many new industries. Its' usage is expanding from the traditional food and beverage logistics to all kinds of goods. Historically, the method has been suitable for transportation of high volumes of goods with strict time requirements (e.g. fresh fruit).

Now, technology has made it possible to overcome some of the challenges that previously were holding the method back. When DSD is implemented correctly, significant cost advantages can be achieved. This document outlines some of the key mobile technologies that can be used to efficiently leverage the DSD method.

Direct Store Delivery

Direct Store Delivery is a logistics method, where the supplier delivers goods directly to the retail store. A key element in the process is to by-pass the warehouse or traditional distribution centers. The concept is not new and is widely adopted for distribution of beverages, food, gas and pharmaceuticals. Due to its' nature, this method has been particularly suitable for goods with fast replenishment cycles.

An example is time sensitive and perishable food in the shelf of the grocery store. Because the warehouse step is taken out of the process, the supplier must take on a larger responsibility than only distribution of the goods from location A to B. His scope does often include replenishment, return handling, storage and prognosis planning and many other activities.

Warehouse delivery

CG SUPPLIER			RETAILER		
SUPPLIER MANUFACTURING	SUPPLIER WAREHOUSE	SUPPLIER DELIVERY	RETAILER WAREHOUSE	RETAILER DELIVERY	RETAIL STORE

Direct store delivery

CG SUPPLIER				
SUPPLIER MANUFACTURING	SUPPLIER WAREHOUSE	SUPPLIER DELIVERY		RETAIL STORE

Recent studies have shown that many companies are evaluating to increase investments in DSD to increase efficiency as well as adaptability. Among others, the method can reduce order times, stock-turnaround times and provide faster decision making. A prerequisite for effective use is to leverage new technology to overcome some of the challenges that are built into the process.

Re-think Retail!

Important retail trends:

- ▶ **Omni channel** – combination of online and shop
- ▶ **The extended shop** – shop + collection point + learning center + social space
- ▶ **Enhanced customer experience** – inhouse bakery, fresh mean etc
- ▶ **Data collection** for understanding customer experience

In which direction are the retail stores heading? With e-commerce growing rapidly, one might think that the future for retail stores looks very bad. Will online shopping erase our need for physical stores?

The answer is no. There is definitely an important role for the retail store in the future. However, it is a different role from the one from yesterday.

One of the first trends is Omni channel. It means leverage on the best from both worlds, e-commerce and the retail store. The best ventures are those where consumers do not have to chose between the two. An example is looking at the product in the shop, ordering it online at home, and collecting it at the store. Many retail stores that are leveraging omni channels are continuously looking for more ways for the consumer to shop both online and in-store, with a large number of combinations of collect, delivery to lockers, parcel shops and home delivery.

The retail store's objective is now expanded from being just a shopping place to also become the package collection point, the learning facility and maybe even a social space.

There are also many things that you cannot experience online. Many retailers have understood this and are re-building or re-arranging their shelves to optimise. For example many have installed an in-house bakery, are offering fresh meat, a fish counter and providing self scanning and self checkout.

People in the store also means an unique opportunity to collect data. This is important data that is needed to enhance the customer experience. What did they like? What other products did they buy? How did they react on a specific campaign?

# Increased Efficiency and Adaptability

So, why is Direct Store Delivery increasing in popularity? One of the obvious reasons is of course that you cut a step out of the delivery chain. That means the costs related to unloading, storage, handing and reloading the product will significantly diminish. There are also other advantages. One is fast replenishment, which often is beneficial for the small store with limited storage (e.g. the small kiosk).

Another that is becoming more and more important is the close collaboration between supplier and retail store. The supplier understands market changes faster, and can respond quickly to improve the stores overall bottomline.

However, the method does also introduce some specific requirements. One of the most important is the ability to efficiently handle small consignments. Traditional logistic optimisation is about filling the truck. With DSD, optimisation must be achieved in other ways. This poses many additional responsibilities to the driver.

One example is that the driver becomes the main point of contact, in most cases, between the supplier and the retail store. Other examples are that the driver may have to manage the replenishment, returns, storage and even negotiation of the next delivery date. Although efficiency and adaptability is rising, the tolerance level is reduced. There are simply no margins for faults of any kind in this process.
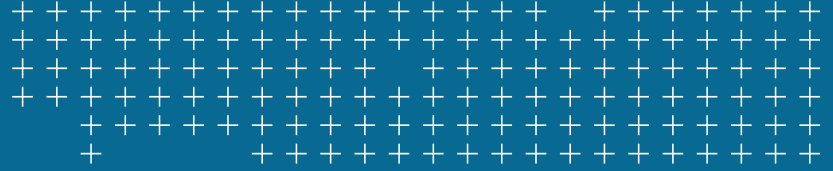
What is Required?

If we summarise, what are the key requirements for efficient use of the DSD method? **Here are some of the key points:**

▶ Efficient handling of smaller consignments and multiple ad hoc stops during the route

▶ Drivers ability to manage an extended scope of responsibility, which could for example include replenishment, storage, return handling, prognosis, season variations and environmental optimisations

▶ Agile technology, which enables you to quickly adapt to changes in the market and stay ahead of the competition

▶ Higher precision on the forecasted demand and delivery accuracy

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Intelligent Mobile Workflows

A very efficient technology that can be used for Direct Store Delivery is "intelligent mobile workflows". This includes multiple tool sets that offer to overcome and manage some of the DSD's challenges.

So, what is the added "intelligence"? Some of the key components that we are presenting in this paper are:

▶ Optimised digitalised processes

▶ User experience

▶ Leverage digital tools

▶ Route optimisation

▶ Insight analytics

A Customer Case Study

Abstracts from the Customer Case study

DB Schenker in Sweden is a future-thinking logistics company that has successfully captured new market opportunities, increased efficiency and limited its environmental impacts by using the intelligent workflow tool Smartdelivery to digitalise workflows.

One innovative area is how Schenker has been able to manage new advanced customer requirements regarding flexibility and handling of specific sensitive goods. For example, Schenker has created an efficient transportation process of pharmaceuticals to Swedish retail pharmacies. Swedish pharmacies were deregulated in 2009. Many brand-new competitors sprang up, and substantial changes were implemented.

From a logistics point of view, this meant more retail endpoints and parties to handle. The rules governing the handling of pharmaceuticals are strict, and the requirements for control and verification are very high. At the same time, retail pharmacists have firm requirements on speedy deliveries at short notice. When a customer orders a pharmaceutical in a pharmacy, it must be supplied within a certain time limit.

In cases like these, time stamps from Smartdelivery can ensure that the promised delivery time is met and confirm that the quality of goods was maintained during transportation, based on temperature sensors and transmitters.

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Optimised, Agile and Digitalised Business Processes

Very important components to efficiently handle smaller consignments are optimised, digitised and agile business processes. Sometimes, these requirements may feel contradictory. Many companies are forced to modify their processes to fit with their digital technology. We believe that the optimal way is to first trim the business processes and secondly introduce technology that can be adopted to fit the processes. This requires enterprise class technology that is highly configurable without compromising on security, robustness and scalability. The technology must be agile to allow new changes quickly.

One very efficient way is to leverage software configuration, where changes can be made without re-compiling the code base. The best-in-class systems use a high granular configuration, that allows fast and accurate fine tuning of the system. An example to describe this concept is to think about how music is created and mixed in a studio. The mixer board in the studio allows the creation of the most harmonic music. We believe this is also true for creating the most optimal DSD implementation.
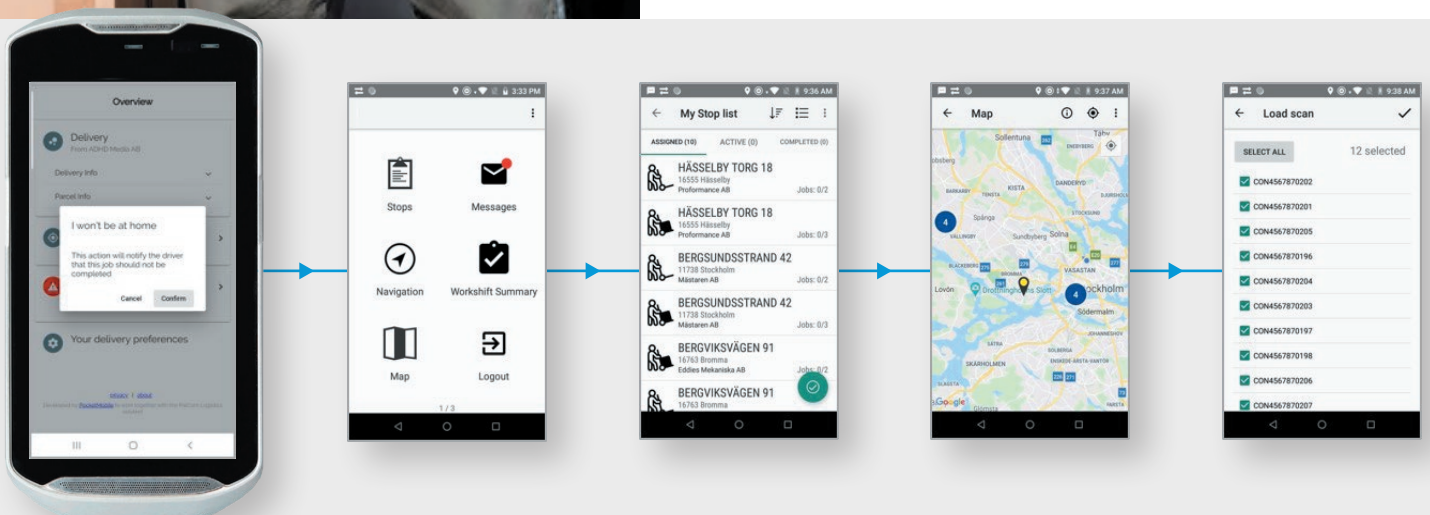
Route Optimisation

As the DSD mobile application is a frequently used mission critical tool, fundamentally, it requires that the application be simple, intuitive and easy to use. Among other things, this means a simple and intuitive graphical user interface that will require minimal training.

Guided workflow is a good method to secure quality. It means that the next step in the process is determined by reference data or business rules. The application will guide the user through the process and secure the minimum number of clicks.

Individually detailed object instructions are important workflow steps that help the user to achieve their tasks. For example, a detailed object instruction could be how to unpack and replenish specific goods a specific day.

A key point is to also efficiently track and trace the goods when changes occur. Drivers, trucks and warehouses must be accountable and "changeable" throughout the delivery chain. Drivers can become sick and trucks can breakdown. It must be possible in the process and the tool to quickly arrange replacement.

Route Optimisation

Timely delivery is fundamental for Direct Store Delivery. Imagine a fruit shop opening in the morning with empty shelves. The economics of small consignments and many small stops does not allow anything other than an optimised route. The supplier should also simplify things for the retail store by offering predictable delivery windows. To keep agreed Service Level Agreements is, of course, a must to developing a prosperous collaboration between the supplier and retail owner. The process must also have room for change, when an ad-hoc job appears and an ongoing route must be altered.

With advanced route optimisation, both accurate time windows and optimised routes can be achieved. The software can take several input parameters into account when planning, for example; bridge-heights and road restrictions. Additional fleet management tools can be used to simplify and stitch road tolls, parking costs, and other costs with the correct customer order.

The result can be displayed in a Navigation tool that will help the driver to achieve the most economical, safe and ecological driving possible.

PLANNED ROUTES

AD-HOC JOBS

Use the Data!

There are a large number of use-cases for leveraging analytical data. Smart decision-making and alerts for changes are two basic reasons. The importance when it comes to analytics is to turn the data into useful information. S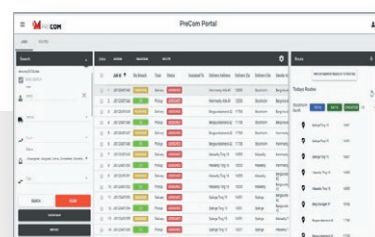ometimes, methods of visualisation, correlation or plotting data trends can display new insights. Besides using of a number of analytical tools in the mobile intelligent workflow system, data can also be post-processed in external BI-systems.
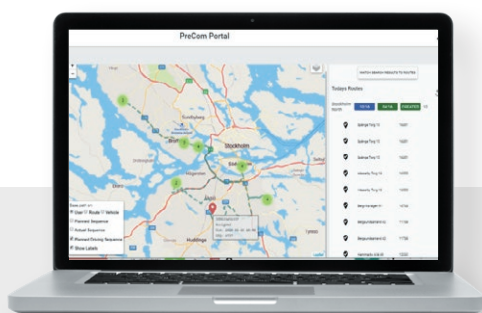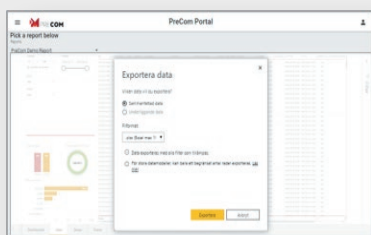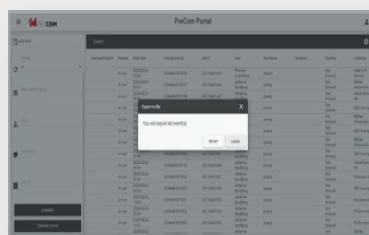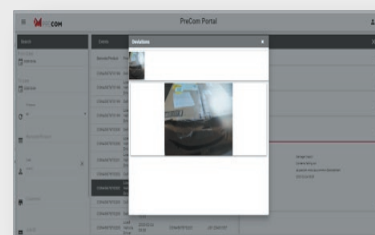

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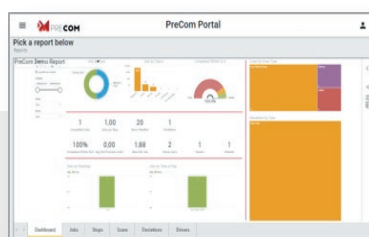
HISTORICAL

MONITOR JOBS

EVENT DETAILS

EVENT VISUALISATION

DASHBOARD

Intelligise Your Mobile Workflows!

Trimble Smartdelivery is Europe's leading supplier of intelligent mobile workflow solutions for companies with field personnel. Our target groups are companies active within postal services & logistics, security & surveillance, and field services.

Our solution, Smartdelivery, is a scalable mobility platform that is optimised to fit our customer's business procedures, but still based on a standard system. Smartdelivery was built for complex, business-critical procedures with high requirements for adaptability, usability and integration with a variety of ERP and support systems. Every day, we provide a large number of businesses and over 100,000 users with a powerful mobile tool that simplifies work procedures, reduces administration and boosts productivity.

Our reference customers include global companies such as Royal Mail, New Zealand Post, Schenker, G4S, Securitas, DHL, DSB, DSV, Volvo and ElTel. Founded in 2000, Trimble Smartdelivery has its head office in Stockholm, Sweden, a development center in Sri Lanka, and an international network of implementation partners.

Trimble Smartdelivery is a Business Unit in the Field Service Management division of Trimble Inc. (NASDAQ:TRMB). Trimble applies technology to make field and mobile workers in businesses and government significantly more productive. Founded in 1978, Trimble is headquartered in Sunnyvale, California, USA.

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