

HAPPIEST MINDS TECHNOLOGIES

Delivery Planning & Fulfilment Optimization

Solution whitepaper



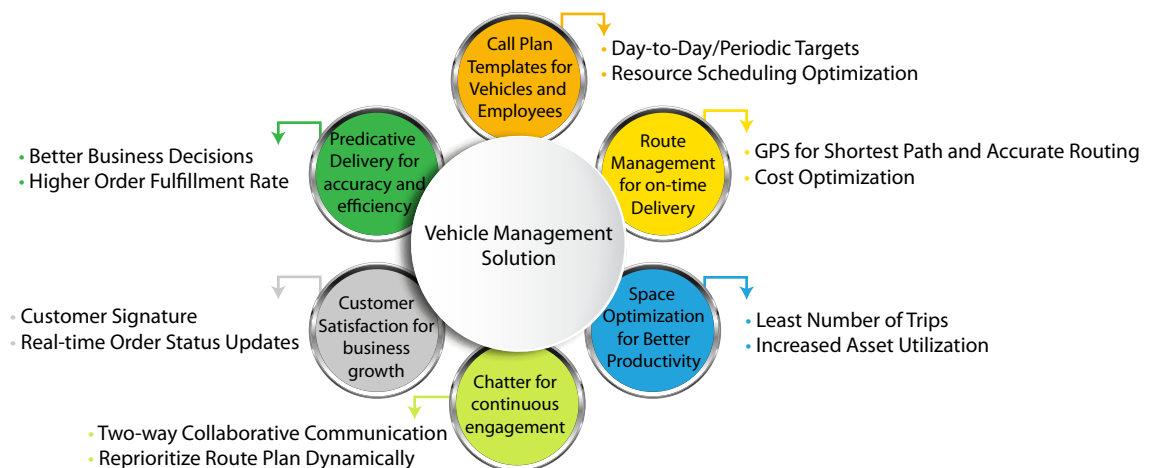
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Introduction

For most businesses today, logistics and supply chain are major concerns that require constant improvement. Organizations spend ample amount of time and effort in optimizing their procurement and delivery cycle. Effective utilization of available resources is one area where businesses can focus on, thereby improving productivity and cutting down on additional cost.

Delivery planning & fulfillment solution helps businesses to effectively utilize their existing vehicle force by implementing priority based algorithm. This algorithm has helped improve delivery service in stipulated time frame. Solution comes with an important feature of dynamically adjusting route plan of vehicles on the go.



Problem Description

To improvise on efficiency of delivery cycle, the solution should address and fulfill the following requirements:

- **Work-load Balancing:**
 - Ability to decide on which vehicle should take which route to fulfill customers on a daily basis demand
 - To effectively segment customers and products in a given region
- **Productivity Efficiency:**
 - Utilize vehicles effectively to maximize area coverage
 - To track vehicle's route plan and dynamically change it on need- basis
- **Performance Effectiveness:**
 - Utilize vehicle space profitably
 - Track performance (Based on Area/Product/Customer)

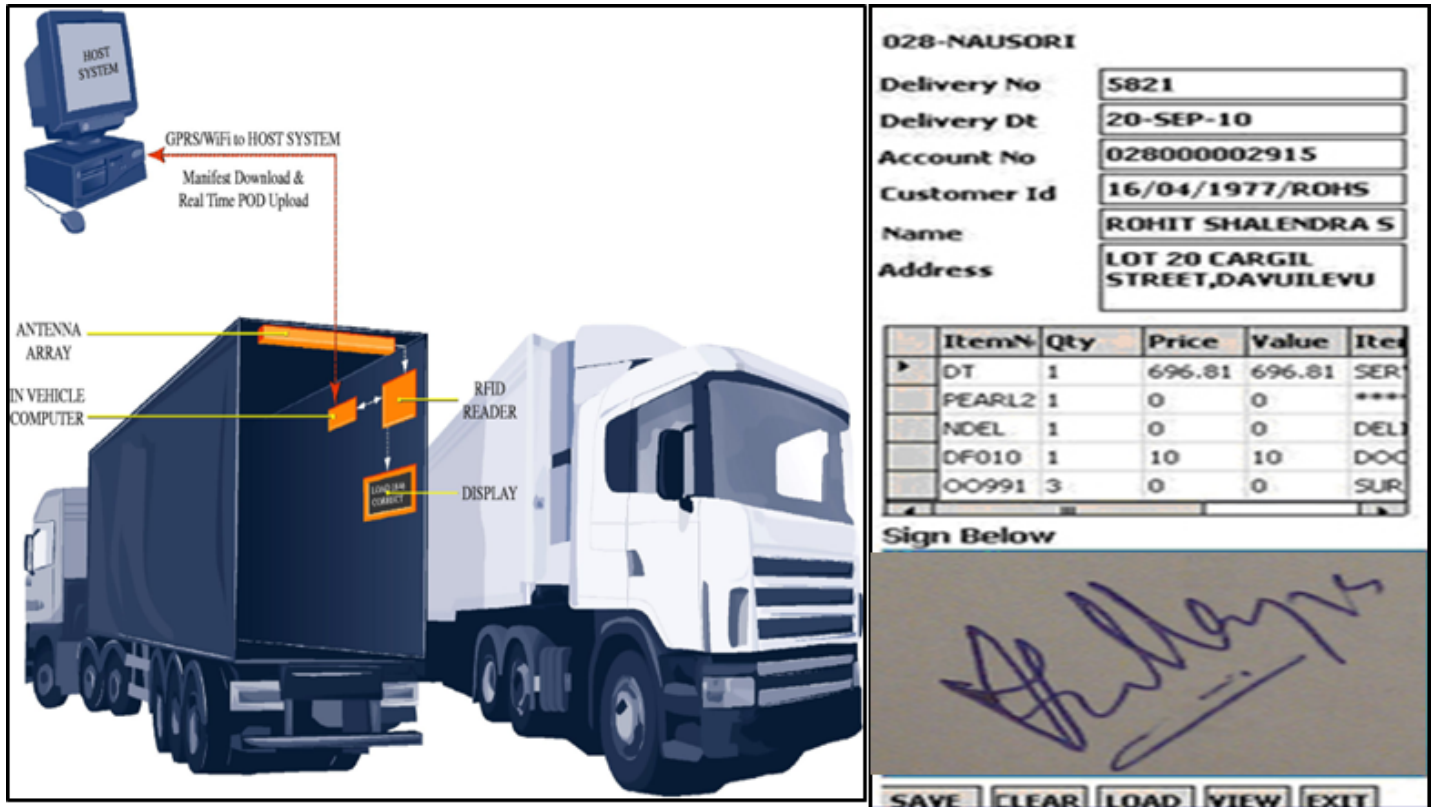
HappiestMinds conceptualized and designed a solution addressing the above requirements by leveraging technologies of SFDC and Google maps API. The details of the approach and solution concept are explained in the following section. The same concept can be implemented on customer's chosen platform.

Solution

The main component of the delivery planning & fulfillment solution is the priority based optimization algorithm which helps in addressing all the requirements mentioned in the above section

Key features of the solution are as follows:

- **Planning for work:**
 - Prioritize and optimize algorithm to generate daily route plan for vehicles from warehouse to delivery locations
 - Defining and mapping customers on route plan for delivery based on daily demand
- **Division for efficiency:**
 - Optimization of trips in a territory against available time and cost
 - Duplication of tasks and efforts for delivery team
- **Facility to accommodate ad-hoc needs and change Route Plan dynamically**
 - Analyze for effectiveness
 - Analytics to analyze performance continuously



To enable acknowledgment of delivery, teams can also capture customer's' digital signature on delivery. Touchscreen hand-held devices like iPad is integrated with the system to capture information and provide receipts of acknowledgment on the go.

Use of RFID system on the vehicles helps in better visibility and reduces pilferage. This also enables ascertainment of goods delivered on time and inventory tracking from source to delivery point.

Conclusion

In conclusion, delivery planning & fulfillment solution has a huge scope in the present logistics space and certainly is the right step in the direction offward in improvising operational efficiency by leveraging technology. It has found to be extremely effective in reducing operational cost, improve space utilization and reduce stock outs, returns there by adequately helping businesses focus more on their core functions.

About the Author



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At Happiest Minds, Anantpal works with ITS Division as Sr. Business Analyst and handles project requirement definition, elicitation and execution, industry research and proposal design for clients from a variety of industry verticals. He has completed his management education from Welingkar Institute, Bangalore and is an IT engineer by graduation from Pune University.

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