What is Route Management, and What Can it do for Your Fleet?



Congestion, delays, lost items, and crippling fuel costs are all disastrous consequences of poor route management. A badly organized fleet can ruin a distribution company or, at the very least, render them uncompetitive.

Conversely, optimized route management streamlines your operations, saves on overheads, and increases your capacity, all while reducing the environmental impact of your fleet. By following some basic principles and keeping up with modern advancements in route planning technology, you can maximize the efficiency of your fleet in a matter of hours.

So, what exactly is route management, and how can you improve yours?

Route Management

Route management is essentially the practice of designing the path for a vehicle to follow. This is usually motivated by the time and fuel savings that a well-optimized route brings, but it's often driven by other factors too, such as schedules, order priorities, and so on.

Planning an efficient route from A to B is relatively uncomplicated with a single vehicle. However, throw in a few necessary waypoints into the trip, and it gets a little more difficult. Add in multiple vehicles, various vehicle types, delivery prioritizations, and multiple access points, and you've got a huge mess to untangle if you want to execute deliveries with any kind of efficiency.

This mess is called the <u>Vehicle Routing Problem</u> and has been a focus of logistics departments, programmers and mathematicians for decades.

This is where skilled route management comes into play. Traditionally a logistics team would have to sit and plan routes out manually, and they'd have limited access to live updates. Now, with current technology, live feedback and accurate GPS can automate this process and take the sweat out of organizing your fleet.



Even more, with the introduction of intelligent algorithms and machine learning, automated route planning systems have become not only faster but far more effective than was ever possible in the past.

Benefits of Route Management

The benefits of proper route management are many. Whether manual or automated, proper route management offers the following gains:

- **Fuel** More efficient route management means there's less redundancy in the routes of delivery vehicles. This, of course, means that they travel less distance, which uses less fuel. This can be a major cost-saving, but the benefits to the company extend way beyond that.
- **Speed** More efficiency means vehicles deliver more quickly along their routes, reducing wait time for deliveries.

- Increased Workload This increased speed means more deliveries can be executed in the same amount of time, allowing the company to handle an increase in customers at no extra cost.
- **Customer satisfaction** Reduced wait times mean happier customers, which means more repeat orders.
- Labor Costs With more efficient routes, you need many fewer employees. This is another cost reduction for the company that can save substantially on overheads over the course of the business's life.
- **Sustainability** Finally, using less fuel is much better for the environment, meaning your company leaves a lower carbon footprint.

All of these improvements are possible to achieve with any good route management system, but automated route management software is just faster and better at it. These systems take into account everything that a good logistics team would use but can also factor in live traffic updates, real-time tracking, and dynamic updating of the route as needs arise.

Route Management Techniques

Route management can be a fiddly process. With a large fleet, there are already many fixed variables to consider, and on top of these, the dynamic variables of real-time traffic unpredictability throw up plenty of challenges.

There are some basic methods to route planning to minimize stress and maximize efficiency when designing a route plan.

- Even if you're mapping out routes manually, make use of GPS software such as Google Maps and use direct communication channels with your drivers to update routes according to their live feedback.
- Keep track of logistics metrics such as warehouse capacity, missed deliveries, damaged items, etc. All of these will be useful for analyzing your route management system and making necessary improvements.
- Strong communication will provide an advantage over your competitors. Route planning and optimization should be a dynamic practice, and this requires open channels of communication between the route manager, the fleet operator, and the warehouses.
- There's no way around it an automated route optimizer is a game-changer. Entering in your requirements and letting the algorithm do the planning saves countless hours and headaches in the planning department and provides faster reactions to live events.

Products like <u>Optivol</u> take the headache out of route management. Their software makes it simple to adjust routes in response to changes in circumstances and provides a dynamic route management system for the entire fleet that can be managed easily and efficiently.

Common Challenges in Route Management

There are three main issues that make route management so difficult, and they all relate to the changing environment.

1. Increasing consumer demands – Even before Covid restrictions came into play, e-commerce was already increasing, and customers were spending less time in physical stores. For a delivery company, this is good business, but it's also a logistical struggle. Trying to meet customers' demands means hitting more delivery targets with more accuracy.

2. Increased traffic – Despite more people ordering online, more cars are still on the roads every year. With the number of cars on the road <u>set to double</u> by 2040, finding efficient and uncongested routes for delivery is becoming harder and harder.

3. **Increasing worker protections** – with regulations for workers' rights continually improving, the cost of hiring goes up, and the number of hours workers are allowed to put in goes down. This makes keeping up with the increasing demand a much more competitive and difficult discipline.

Because the environment is always evolving, there is no set formula for effective route management, which is why it's so important to have a dynamic approach. Staying on point with route management becomes much harder when sticking to traditional planning methods.

Cue route management software.

How Route Management Software Can Help

With automated route management software, these challenges can be significantly reduced. As a step-up from spreadsheets and simple heuristics, planning and optimization algorithms can dramatically reduce redundancy in delivery routes, adapting them as needed and helping companies keep up with increased demand.

Smart and dynamic technologies can adjust their planning in response to live feedback such as traffic and accident events on the route, making it easier for your fleet to avoid such delays.

These improvements also take the strain off your workforce, who can now handle more with less. This means fewer hiring demands and better worker protections.

Equally important is the time and effort saved in the logistics department. Hassle-free, automated route optimization is the future of route management.

Conclusion

Route management is a key component of any distribution network. Not only does it save on fuel and labor costs, but it allows for faster, more accurate, and more voluminous deliveries using the same resources.

Route planning is a science in its own right, and traditional methods took logistics teams countless hours and laborious monitoring and adjustments to get right. Even with these efforts, manual route management has been left behind by automated route management software.

Using live data and powerful algorithms, automated route planning and optimization make the process as clean as it can possibly be. Simply enter the necessary data and let the system figure it out.