

# Scale Your Business With Our Guide to Route Optimization

Route optimization reduces operating costs by providing the most efficient and cost-effective routes for drivers. In this guide, you'll learn how route optimization can benefit your company. Although it's said of many industries, in the field service industry, time truly does mean money. Theoretically, the quicker technicians can arrive at a client's location, the more jobs they can complete during one shift. Faster routes for [field service technicians](#) bolster productivity and efficiency, and they also improve customer satisfaction levels.

Route optimization can also reduce operational costs, which is a high priority for almost every field service company. This guide will go over what route optimization is, how it works, and the benefits it brings to both you and your drivers.

## Overview: What is route optimization?

Route optimization is often conflated with the process of finding the shortest route possible between several locations. While minimizing distances and the time spent in vehicles are factors in route optimization, the main goal is to find the most cost-effective routes available.

There are many other factors involved in route optimization, such as:

- Delivery time windows
- Driver schedule
- Arrival/departure time gaps
- Traffic congestion and traffic accidents
- Turns and intersections along possible routes
- Technician proximity to locations
- Number of left-hand turns along possible routes (crossing the line of traffic)

## How does route optimization work?

Modern [route optimization](#) is done with software, usually via a route optimization application programming interface (API) or fleet and field service management software.

The software uses complex algorithms that take into account all the factors listed above, such as work orders, real-time and historical traffic data, and technician scheduling, to create the most efficient routes for drivers to take.

Most route optimization software creates three separate routing methods:

- **Static:** These are routes that are planned on a monthly or quarterly basis and are usually built around forecasted jobs.
- **Dynamic:** Dynamic routes are those created daily based on new and upcoming jobs.
- **Real-time dynamic:** These routes are adapted during the day based on new jobs that enter the system. They are suited to companies that need to respond continuously to new requests throughout the day.

## 5 benefits of [route optimization](#)

Planning a route that is cost-effective and efficient is the focus of route optimization. Let's take a look at some of the benefits you can expect from using route optimization technology.

### **1. Reduces operating costs**

Some of the major costs for any field service company are fuel and repairing wear and tear on vehicles.

Without optimizing routes, it's likely you're using much more fuel than necessary, and, in turn, spending more money on that and on vehicle maintenance. By calculating the best routes possible by taking real-time and static factors into account, you can reduce your fuel consumption and cut maintenance costs.

### **2. Increases technician efficiency**

When last-minute jobs are requested, of course you want to satisfy customers and help them solve their problems on the same day. However, more jobs scheduled equals more driving time for your technicians.

Route optimization can reduce both distance traveled and travel time, meaning shorter service times for your customers.

### **3. Minimizes manual route planning**

Depending on the size of your company and/or team, you might still be relying on manual route planning to make sure your technicians are in the right places at the right times.

However, manual route planning is extremely time-consuming, and, when you factor in multiple changes during the day, it can become almost a full-time job.

Route optimization is automatic and quick, and it doesn't involve you mapping out hundreds of different route scenarios just to fulfill one job. The software takes into account the assets and equipment your technicians have with them, customer requirements, and technician locations, and it quickly delivers your route plans.

[Field service management](#) tool Jobber, for example, allows you to reset routes when jobs are cancelled or new jobs are added, and technicians will be notified instantly via the app.

### **4. Improves customer experience**

When customers are waiting at home for your technicians to arrive and fix their problem, only to be told there's a holdup due to traffic or poor scheduling, you're damaging their experience with your company.

Even when delays occur, [route optimization software](#) can help you reassure customers that help will be on hand at a specific time.

Optimization tool OptimoRoute allows users to schedule last-minute changes that won't affect existing jobs, and it gives users information on job priority and live status.

OptimoRoute's route optimization feature with real-time map and live status information. OptimoRoute allows you to make real-time changes to technicians' schedules. Image source: Author

### **5. Provides better data for performance improvement**

Using route optimization software, you'll be able to track patterns and trends that will help inform your technicians' schedules. For example, you'll be able to pinpoint that a certain highway is generally always busy at midday on a Wednesday, or that you're receiving a high number of similar work order requests in certain areas.

This helps you to identify bottlenecks and put solutions in place before they negatively affect your reputation and budget.

### **Example of [route optimization](#)**

Route optimization can take many forms, depending on the industry you serve. Below is a sample scenario demonstrating how route optimization works in practice for a field mobility company.

Let's say you have a team of five technicians. Each technician works four weekdays, with one day off.

On a Monday morning, one of your technicians calls in sick. This leaves you with three already scheduled jobs that need to be completed on Monday by your four remaining employees. Plus, you've just received an alert for a new job to be completed via your work order software.

Although your technicians had already calculated their routes for the day, they will now need to be changed to accommodate the four remaining jobs and customers. Additionally, you realize that you need to take into account a traffic accident that is causing congestion in the area, and one of your technicians does not have the equipment to complete one of the jobs on the schedule.

Using route optimization software, you are able to:

- Add the extra work orders to your remaining technicians' schedules
- Change the line-up of these work orders to accommodate your technicians and customers and the equipment they have with them
- Plan routes that avoid the congestion caused by the accident

### **Route optimization helps you stay on the ball**

[Route optimization](#) goes one step further than traditional route planning, and it helps you deliver customers the best possible service while keeping costs down. Well-planned routes that are delivered to you automatically by field service automation tools means your technicians spend less time on the road and more time attending to work orders.