Integrating Routing Software With Your Business Process Workflow

Appian Software for Routing and Logistics

from TMW Systems

INTEGRATING ROUTING SOFTWARE WITH YOUR BUSINESS PROCESS WORKFLOW

INTRODUCTION

You've decided to explore 'route optimization'. What motivated you to look in to the idea? Maybe it was the last fuel bill, the one that had doubled from the year before; or customer complaints about waiting too long for a delivery or missed delivery times. Perhaps you just realized that every morning a substantial amount of product leaves your building—and you have very little idea about what's really going to happen with it.

Whatever the reason, you're going to look at new tools to manage your fleet of vehicles.

You search online for services under the heading "route optimization". So many options, but not much clarity. Where do you begin? How do you evaluate among so many choices? Confused, you turn back to other matters and decide to look in to the matter again soon.

You're not alone. Over our 20+ year history in the routing software business, we have seen hundreds of companies wait, sometimes for years, to make the decision to dramatically improve the way they manage delivery or service routes. They see the numbers, perhaps talk to other companies already using the tools, even project significant savings, ***and still do nothing.*** They seem comfortable to sit back and endure the bumps, glitches, and problems that drove them to look for a better way in the first place.

Route Optimization Tools have proven to reduce transportation costs, fleet size, manpower and dispatch

Over the years, we've found the reasons people wait to make a decision about route optimization fall in to a few basic categories:

THEY *CAN* WAIT.

The truth is they can continue to open the door each morning and go right on doing things the old way. It may be expensive, painful and often unreliable, but they know how to get the job done, most of the time.

THEY CAN'T UNDERSTAND HOW TO VALIDATE RESULTS.

Accounting systems, track and trace solutions, warehouse management software, and most other technology tools share one common trait … they provide you with a single "right" answer. You have this much money in the account or that many widgets in the bin; the shipment really is in Omaha. There may be issues with how the software or service works, but you can check and validate the results with a calculator or a call.

Routing software is different. The only real way to validate a given routing solution is to create a second set of routes for the same work using your standard manual methods and at the same time drive both sets to measure outcomes … it just doesn't seem practical.

THERE ARE "SPECIAL REQUIREMENTS" FOR WHAT THEY DO.

It is amazing how many otherwise well-managed companies are convinced that how they transport their goods is quite unlike the way that anyone else operates. Even with hundreds of other companies in their industry, their transportation process must be unique. If they deliver canned fruit, that has to be completely different from delivering canned tomato sauce. Right?

Companies often have trouble clarifying the real benefits they are after from various "side issues" … things that somehow make it to the list of "must haves." The long list of things to check off makes the process of evaluating route optimization technology cumbersome. We've seen companies trapped in indecision because they can't find software that will "automatically find a nearby truck stop when I schedule a lunch break" instead of recognizing the fact that what they are evaluating will cut 2,000 wasted miles a day from their operation.

TRAFFIC CONDITIONS.

This is a common objection to evaluating many route optimization technologies with strong reputations and loyal customer followings, "the solution must have road traffic conditions."

Think about that for a minute. You are planning routes for delivery tomorrow. You aren't just looking for traffic conditions; you are looking for a solution that can predict them in the future. Or, you're looking at a solution that tracks vehicles in real time, and you're convinced that reacting to traffic is a "must". That technology and data *is* available, but only for some roads. You can know, for example, that traffic is backed up on I-495, but there are no reports available for state road 25, the best alternative. Is 495 backed up because of a problem on 25? Will diverting make your drivers' situation better, or worse?

Traffic data can help, but coverage is still spotty and your net benefits in daily planning operations from that extra investment can be extremely limited.

BLACK BOX.

Someone in your organization might say "if we're spending all this money, it should create routes without anyone involved." The 'black box' that replaces a human completely and requires absolutely no oversight for daily load planning is an elusive goal. Companies can spend hundreds of thousands on technology and still not escape the need for an expert human to keep an eye on the process.

Consider instead: if you are now spending 3-4 hours a day setting up routes and a tool which automates the process can reduce the time required from you down to a 10-minute review of final results, just to catch possible data-entry errors (like an address in the wrong town sending a route off into a remote location), it still saves almost 20 hours in a week, or 80 man-hours a month.

THE LEFT-HANDED VEEBLEFETZER.

This objection usually comes from someone in your organization who feels a bit threatened by a potential routing automation solution … they will bring up a condition like "once a year we send a truck to the north side of the river bridge to park for 10 minutes" and this minor business exception becomes a standard that every routing technology solution must accommodate. Many of those special needs can be handled, but you should not allow these rare exceptions to become the barriers that deprive the entire process of major improvements.

I'VE GOT TO PROVE PAYBACK.

Routing optimization solutions that actually *work* are not cheap. A standard ROI analysis may simply not fit when

evaluating these solutions because you cannot directly compare what you now do manually to what you'll be doing in the future with exact comparison data or results. It is possible to make the case that a solution could pay for itself if it cuts cost by as little as 1-2%. We urge you to check references for proposed routing technologies with some of their current customers; if these other companies confirm that they have recognized savings of something like 15-20%, then chances are, you've found a pretty "safe bet."

What should you be looking for in a solution?

Planning is the key to successfully implementing a change to your business

There are many ways to provide tools to route your vehicles better. Certain factors are critical in choosing the right solution for your company:

MAKE SURE YOU UNDERSTAND YOUR BUSINESS NEEDS AND GOALS.

Why are you really looking at routing software? Are you trying to reduce costs, cut the time it takes to create routes, or give better service to your customers? Are you growing and need help to handle the increased volume? Before you begin to look for a solution, make sure you have your business goals defined and agreement on them within your organization.

BE OPEN TO CHANGE.

The best routing software gives you new tools to change the way you operate. As you look at solutions, be open to the potential changes they might bring to your current transportation and planning processes.

Identify the parts of your operation that can and cannot change. For example, if you typically begin setting up routes in stages early in the day, do you do that because you need time to assemble orders, or because it just takes time to assign work manually to your routes? Do you let your drivers sequence their own routes for any reason other than your dispatcher is overworked? Do you keep the same driver on a route all the time to build strong customer relations, or simply because it is the easiest way to assign jobs?

EVALUATE THE BACKGROUND FOR EACH ROUTING TECHNOLOGY YOU MIGHT CONSIDER.

Ask the salesperson questions about the various ways their current customers use the solution, about the history of the product, how it has evolved and the background of the company itself. Find out how the company drives product development and what they have planned in the future.

Routing software is a very special category of technology, different from almost anything else out there. You will find that the way in which a company has arrived at its current product functionality—and how it is looking ahead—has a profound effect on how that solution might work for your operation over the long run.

AVOID THE IT TRAP.

Routing software will work with your customer and order data, two critical resources for your company. Don't let that idea scare your IT department. A routing solution is not a data repository, but rather a process that acts on that data without making changes to it. For example, when routing software is presented with a file containing orders

to route, it will simply add a few data points to that file, route and sequence. It assigns a delivery time and other route-based information, but the only real "data" generated is the route identity and the stop number, and that data is only valuable in terms of the delivery process.

Conventional IT thinking evaluates data-handling software from security and data integrity perspectives that are not applicable for a routing solution. Your routing optimization technology should not be storing customer and order data, only the business rules information it needs to generate routes. Data back-ups, security, and the many other IT issues traditionally applied to "mission-critical" database applications don't apply here.

THINK BEYOND BUILDING ROUTES.

Good routing software gives you tools to analyze and improve the way you do business. Exploring alternatives, like giving customers shorter delivery windows, or using contractors or changing the kinds of vehicles in the fleet, are all scenarios a good routing solution can support. As you grow or your business changes, a strong routing technology platform can help manage that change. Make sure the solution you choose has both the tools and the technical support to help you move beyond just "making routes."

THINK ABOUT ADOPTING ROUTING OPTIMIZATION AS A 'PROCESS', NOT AN EVENT.

Once your new routing optimization technology is in place, don't be surprised if your original requirements undergo some change. As you implement, you will become aware of new information about your operation and its dynamics. Your greatest performance

improvements may come through these new discoveries. Instead of working just as your manual operation and knowledge base previously supported, plan to adopt routing software and then go through several improvement stages as the new insight helps you understand better what you are doing now, and what you should be doing going forward.

IT COMES DOWN TO PASSION.

Pay attention to vendor attitude. Listen carefully to *how* they say things, not just what they say. Ask about the other projects they are working on and about their vision of the future. Find out what interests them. If they don't show passion and interest in the challenges of routing and the impacts on business efficiencies, then their products probably won't either. In the changing and variable world of route management, it is as important to understand where a vendor is going to take you in the future, as it is to know where they are now. If you don't find people who have a background in the industry and a passion for it, it is our experience that you will probably be shopping again in a few years.

REMEMBER, *YOU* HAVE TO USE THE SOFTWARE.

Some routing system developers have spent years obtaining and honing their skills at universities and think tanks. Often, but not always, this means that they don't have a good feel for the practical factors you wrestle with every day.

Look for the practical application of advanced science. If you can't use it to solve problems like "Joe is a great driver, but we can never send him to *that* customer" or

"that customer can only be serviced by a truck with a lift gate," you probably can't use the software on a daily basis to make your transportation operations work. Look for great mathematicians and scientists at a potential vendor but also for people who understand that when it snows, your routes will run different.

SUMMARY

Effective routing solutions from experienced companies work. They lower costs and improve the service levels you give customers. They will generally improve staff morale by creating routes that can actually be accomplished. The key for you and your team is to be ready for a solution, to approach it as a benefit and powerful tool and not just a way to replace or reduce staff. This technology can be an instrument of change to help your company face and tame the challenges of transportation performance improvement in today's marketplace.

END

NOTES

TMW Systems transportation management software helps automate and manage complex planning, costing and logistics processes for shippers with private or dedicated fleets, for third-party logistics operations and other transportation intermediaries and for commercial carriers operating via multiple surface transport gumodes. Improved service, visibility, partner connectivity and cost control helps our customers successfully manage over $62 billion in freight spend annually.

For more information, please visit www.tmwsystems.com or call 800.401.6682.

TMW Systems® is a registered trademark. All other marks are the property of their respective owners.