

Routing Solutions Help Operators Do More With Less

Rising fuel costs and a capacity shortage are driving the need for better scheduling and routing systems.



Jeff Groenke
VP of sales and marketing,
Cheetah Software Systems

Fleet operators are under tremendous pressure right now. With the cost of fuel rising, companies have to find ways to reduce the total number of miles driven during each shift. The rebound in the logistics and shipping industry has increased demand for services, but there is currently a shortage of trained drivers, as well as a capacity crunch due to the contraction and consolidation that occurred during the recent recession.

Operators need to serve more customers with fewer resources, and do so as efficiently as possible. Many are evaluating new scheduling and routing solutions to better manage their field service or delivery fleets.

“Now is a good time to make an investment in scheduling/routing technology,” says Jeff Groenke, vice president of sales and marketing at Cheetah Software Systems. “As the economy improves, companies need to grow by improving efficiencies and productivity, not by adding more drivers and equipment — this also helps in weathering future economic storms.”

To be effective, these solutions must have a strong mobile component that allows employees to access relevant customer data in the field. Routing systems should also allow schedulers to have a higher-level view of how well the fleet is operating by providing real-time analysis and alerts.

Scheduling and routing solutions are also adding new business intelligence capabilities in order to help manage more employees in a wider variety of roles, including subcontractors, delivery drivers, and even customers. “When done right, the scheduling software automates them all in a finely choreographed dance where no minute is wasted, and each move smoothly flows to the next,” says

Israel Beniaminy, senior vice president for product strategy at ClickSoftware. “This orchestration demands higher intelligence in scheduling decisions, and it also sets a very high bar for visibility: Letting colleagues, contractors and customers view the schedule, receive alerts and request changes. These visibility requirements are increasingly being addressed via inspiration from social media such as Facebook and Twitter.”

Dynamic Routing Is In Demand

“The availability of inexpensive GPS and tracking information has led to innovations in the industry such as real-time tracking, map displays and route analytics,” says Paresh Hirapara, president and CEO of Enaptive. “Greater availability of data and analytics has opened the doors to an unprecedented potential for business process optimization throughout the industry. The main challenge remaining in the industry is integrating GPS and tracking information into existing processes and infrastructure.”

Customers want access to up-to-the-minute estimated times of arrival (ETA), “breadcrumb” functionality that can record a vehicle’s location over time, new mobile devices, and cost-effective access to more advanced capabilities like bar code scanning, digital photos, and signature capture in the field. “Dynamic route optimization is another key piece of functionality that clients are interested in implementing,” says Bob Skinner, CEO of Agentek. “Live traffic updates are now available and add value to the routing challenge.”

Rerouting drivers and adjusting the schedule on the fly through dynamic routing is an important function that can help fleet operators differentiate them-



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selves in the marketplace by more quickly responding to customer requests. “Determining how quickly a driver is moving on a route allows planners to determine in real-time whether a driver is going to arrive according to schedule or, if late, rearrange the schedule and other routes to accommodate last-minute schedule changes,” Hirapara says.

While rugged mobile computers are still the device of choice for most field service applications, end users in the direct store delivery, logistics, office equipment repair, and other markets are adopting smartphones and new tablet devices. “As the cost of smartphone hardware is rapidly reduced, we’re noticing a trend away from rugged devices — hardware is becoming almost disposable,” Groenke says. “Smartphone devices provide everything that rugged devices used to be required for (bar code scanning, signature capture, picture taking), at a lower price point.”

Consumer-grade GPS devices (like the Garmin) are also used in some of these applications, but typically in conjunction with an enterprise-level routing solution. Off-the-rack GPS systems generally can’t handle the requirements of most fleet operators. “Dot on a map solutions don’t compete with the functionality that routing and scheduling solutions offer,” Skinner says.

Navigating The Software Selection Process

When making evaluations of scheduling and routing software, it’s a good idea to test the solution using historical data, and even do ride-along with the vendor’s other customers. Involve your IT and operations teams, and ask technicians for their input, as well.

“Early on in the evaluation process, it’s important to identify champions within the organization to help drive adoption of new solutions,” Hirapara says. “Even if the perfect solution is found, if there isn’t sufficient buy-in throughout the organization,

the solution can fail.”

Try to find a partner that will aggressively prequalify the solution to ensure it’s a good fit, and have a long-term plan for the implementation. “While it is usually a good idea to go for a phased approach, evaluators of scheduling solutions should have a comprehensive vision and bring in staff members responsible for all parts of that vision,” Beniaminy says. “For example, even if the scheduling is initially intended to be rolled out only to the groups that perform small tasks with short planning horizons (e.g., break-fix), if you believe it will eventually also be used by groups involved in more complex tasks (e.g., complex installations) then these groups should also be represented.”

What about software as a service (SaaS) or cloud-based solutions? These types of systems are not for everyone, but they can accelerate implementation and reduce costs. Smaller companies often favor these solutions because their work processes are simpler compared to larger enterprises.

“SaaS solutions are increasingly prevalent due to both improvements in cloud technologies and infrastructure, and the desire of customers to eliminate risk, gain a quicker ROI, reduce up-front costs, and reduce internal support requirements,” Groenke says. “Even larger corporations are considering SaaS, while the vast majority of small to medium companies are strongly considering SaaS solutions over on-premise solutions.”

No matter what deployment model you follow, find a system that can adapt to your needs over time, and that can incorporate new technologies as they are introduced. “Start with listing the features and functionality which you believe could be relevant to your organization, even if not relevant today, and check for how well the vendor’s roadmap aligns with that list,” Beniaminy says. “Recognize that the future is at best only partially visible, and therefore evaluate the vendor’s past performance in reacting to, and leveraging, technology and business disruptions.” ●