

Field Service 2012: GPS and Fleet Management

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In Aberdeen's *Field Service 2012: The Right Technician* research (February 2012), 45% of the 220 responding service and manufacturing organizations reported that the development of real-time visibility into service technicians, vehicles, parts and resources was a key strategic action in ensuring improved field service performance. An equally strong 48% of respondents to Aberdeen's *Field Service 2012: Mobile Tools for the Right Technician* research (July 2012) reported that real-time visibility into field resources was necessary to maximize the field service improvements seen from mobile investments.

Turn-by-turn directions, intelligent routing, automatic vehicle location capabilities powered by GPS (Global Positioning Systems) aren't new to the field service realm. In fact, [Aberdeen's research](#) on GPS in 2008 revealed that 30% of organizations had invested in fleet management and vehicle tracking tools. At that time, the use of the technology was mostly tied to tracking a technician's whereabouts to ensure appropriate usage of company time and property. However, today forward thinking organizations and performance leaders are those that have integrated location information into their scheduling and planning strategies to ensure the highest levels of productivity and utilization. Leading organizations are also using the GPS information to intelligently manage their service fleets while improving the safety and security of their field service technicians. This research document will highlight trends in the use of GPS technology for vehicle and workforce management in field service organizations, while outlining some of the ways in which leading organizations are leveraging location intelligence to improve service performance.

Checking In

In a supplemental survey effort to Aberdeen's *Field Service 2012: Mobile Tools for the Right Technician* research (July 2012), 62% of 135 respondents indicated that they were currently monitoring at least a proportion of their service vehicles remotely. On average, respondents indicated that they were currently tracking 43% of their service vehicles remotely with intentions of raising that proportion to 59% in 12 months. Only 23% indicated that they were remotely tracking all of their service vehicles.

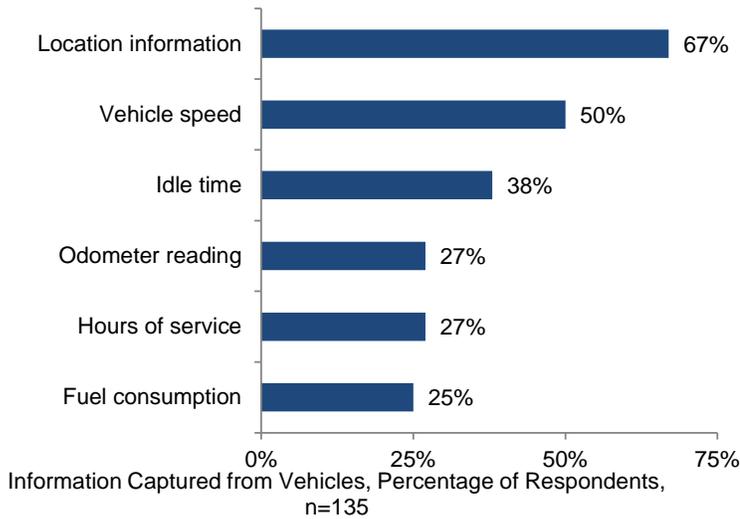
Traditionally as Figures 1 and 2 suggest, connectivity to fleet vehicles is used to ascertain vehicle location and to monitor the movement of these vehicles in the field. However, service organizations are also taking a greater stake in driver and vehicle safety and are monitoring their vehicles to ensure

Analyst Insight

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appropriate and legal vehicle speed or to be alerted of a sudden stop, requiring emergency attention.

Figure 1: Locating Vehicle Parameters

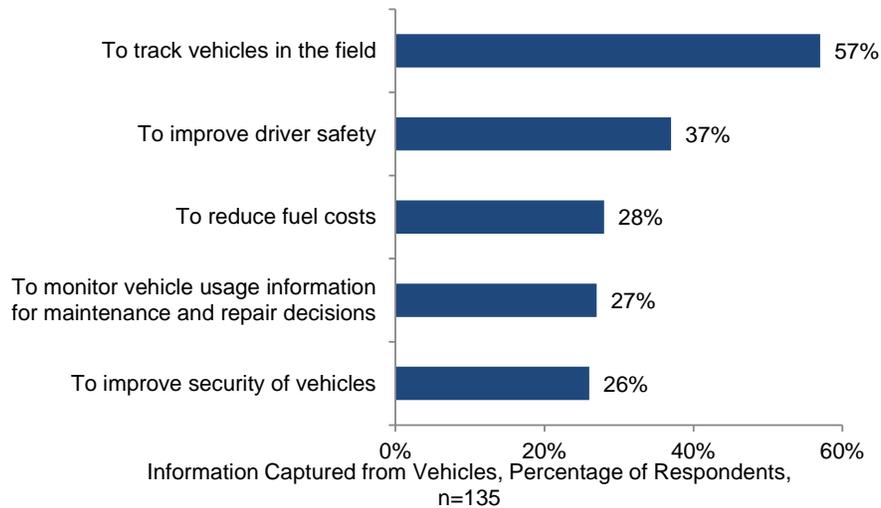


Source: Aberdeen Group, July 2012

Yet surprisingly only 38% and 25% of organizations are monitoring idle time and fuel consumption, key cost components for service fleets. More so, only 24% of organizations are leveraging location information from their service vehicles to provide optimal routing information to their drivers.

Furthermore as service organizations everywhere are looking to do more with available resources, better vehicle and route management can go a long way in reducing usage costs while also ensuring a higher level of customer satisfaction. Better routing serves to minimize travel times while ensuring that service technicians arrive at customer sites when they are expected to arrive.

Figure 2: Using Location Intelligence: The Right Way Forward?



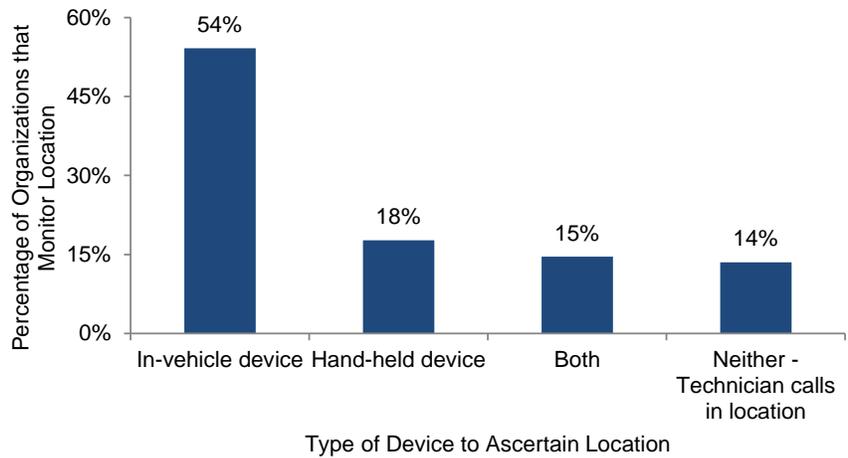
Source: Aberdeen Group, July 2012

Both of these are areas of improvement for service organizations. On average, these organizations report a 65% level of fleet utilization, and when service vehicles are in use, technicians spend about 26% of their time driving. What this represents is an opportunity for building a better reputation in service delivery. For instance, from a customer management perspective, missed appointments or late arrivals are the second most important reason for customer complaints with field service visits, as seen by 32% of organizations responding to Aberdeen's [Field Service 2012: the Right Technician](#) research (February 2012).

Dot on the Map

The location information that is fed into vehicle tracking or monitoring systems is primarily captured from installed in-vehicle devices, as seen in Figure 3. These wired devices are preferred over mobile handhelds specifically for this purpose, as handheld devices quite often get 'left behind' or 'turned off', eliminating the location co-ordinates necessary for the organization. This seems to go against the general push of field service organizations in increasing the adoption of mobile handhelds for their technicians, especially as seen in [Field Service 2012: Mobile Tools for the Right Technician](#) (July 2012) where more than 60% of organizations were actively evaluating mobile handhelds or tablets for their service technicians. While interest in these devices is high, the focus is primarily aimed at providing technicians with improved work order and scheduling information at this stage. In-vehicle devices that are installed and often hard-wired into the vehicle continue to remain the primary means to ascertain vehicle information.

Figure 3: Knowing Where Your Drivers Are



n=96

Source: Aberdeen Group, July 2012

Regardless of source, 56% of organizations input location data into a fleet tracking and management system (52% purchased and 4% home-grown). These solutions can offer basic tracking and navigation capabilities, but can also extend to offer more advanced capabilities around vehicle management, driver safety, engine management etc. But those organizations that have implemented fleet management solutions have seen significant movements in key productivity, cost and vehicle usage metrics.

Table 1: Improving Service and Fleet Performance

Metric	Average Percentage IMPROVEMENT with Use of a Fleet Management Solution
Vehicle Utilization	2.9%
Total Service Cost	4.9%
Total Fuel Cost	5.0%
Productivity (tasks completed daily)	7.0%
Idle Time	-9.9%

Source: Aberdeen Group, July 2012

Summary - Driving Away with Enhanced Performance

A near 10% reduction in idle time or a 5% drop in fuel costs can be highly significant for a service organization looking to improve on profitability and customer service performance. Some organizations continue to see ballooning costs even with solutions in place, while others have seen two, three and five times the average improvements. Fleet management and

tracking solutions provide an added layer of visibility for service organizations to better manage their resources. Those organizations that are able to maximize vehicle performance are keenly integrating location information into their field service scheduling, routing, and planning initiatives and also looking into improved vehicle management. Best-in-Class organizations, as tabulated in Aberdeen's [Field Service 2012: Mobile Tools for the Right Technician](#) survey based on their performance in productivity, utilization, and response times, exhibited vehicle utilization times of 80% and greater compared to 55% for all other respondents. Characteristic of organizations with an 80% or more utilization performance is the use and integration of location information in field service processes. For instance, top performing organizations not only have alerts in place when their vehicles exceed speed limits or cross designated geo-fences, but they also have alerts to notify their dispatch team of late starts or long stops, issues that can lead to missed appointments and customer dissatisfaction (Table 2).

Table 2: Alert and Ready to Improve Service Performance

Alerts in Place	Percentage of respondents	
	Vehicle Utilization > 80%	Vehicle Utilization <80%
Vehicle exceeding speed limit	56%	48%
Vehicle crosses designated geo-fence	44%	30%
Excess idle time	40%	28%
Long stop alert	36%	15%
Late start alert	32%	13%

Source: Aberdeen Group, July 2012

With the aid of these alerts and vehicle data, top performing organizations are able to:

- Improve driver safety (46% vs. 42% for all others)
- Provide planned vs. actual reporting (32% vs. 19% for all others)
- Determine optimal routing for their drivers (31% vs. 19% for all others)
- Support maintenance/repair/disposal decisions on service vehicles (34% vs. 31% for all others)
- Make customers aware of technician location (31% vs. 8% for all others)

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research	
<i>Field Service 2012: Mobile Tools for the Right Technician</i>; July 2012	<i>Real-time Service Enterprise Series: Fleet Management</i>; February 2011
<i>Field Service 2012: The Right Technician</i>; February 2012	<i>Improving Productivity and Profitability through Service Fleet Management</i>; March 2008
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