



OPTIMIZING FIELD SERVICE OPERATIONS WITH GPS

A WHITE PAPER



GPS: MORE THAN JUST A TECHNOLOGY TO FIND THE NEAREST STARBUCKS

Communications Service Providers (CSPs) rely on their mobile technicians to efficiently and effectively address customer needs in the field.

A technician's ability to effectively install new equipment or assist with a customer issue can make a significant difference in a customer's first impression of the service they receive. In short, the technician is the front line in delivering a quality customer service experience.

Ensuring the right technician is at the right place and the right time is a critical first step in managing an operators' mobile technicians. But the single biggest challenge facing today's mobile field service managers and dispatchers is the lack of visibility into real-time field operations.

Operators want to know: Where are our field employees, what have they done, what are they doing, and are they on time to each job?

Deploying effective mobile field service management solutions is a first critical step in answering these questions. With these tools alone, operators can optimize field service management to significantly and measurably improve on-time arrivals and productivity.

While GPS technologies have become standard fare in every new smart phone sold in the United States as a way to help consumers find the nearest school or coffeehouse and help operators deliver geo-targeted advertising, GPS technologies also play a significant role in making the enterprise more efficient and productive.

INTEGRATING GPS CAPABILITIES INTO EXISTING FIELD SERVICE OPERATIONS TECHNOLOGY CAN INCREASE PRODUCTIVITY, LOWER COSTS AND HELP OPERATORS MAKE INFORMED DECISIONS.



THE VALUE OF INTEGRATED GPS TECHNOLOGIES

Integrating GPS technology with mobile field service management devices empowers operators to extract another layer of real-time data that helps further reduce costs, improve productivity and proactively address operational issues.

With the addition of GPS technology, operators can obtain answers to a number of other critical questions that enable more effective decision making for the business. For example, GPS technologies can help operators understand:

- How long are trucks idling in the field, and how does this translate to unnecessary fuel costs and vehicle emissions?
- How many miles are technicians driving each day, and are these routes based on the most effective to maximize time and customer needs?
- How does actual vehicle activity result in unanticipated or unbudgeted costs, such as excessive fuel, vehicle wear and unnecessary overtime expense?
- How many trips are technicians taking to the equipment warehouse to support service jobs per day or per week, and can these trips be reduced with more effective management?
- Where are technicians and how can they be further utilized to increase productivity?
- Are budget forecasts for labor, fuel and vehicle maintenance costs aligned with activity that is actually occurring in the field?

THE VALUE OF INTEGRATED GPS

The beauty of GPS technologies is that deployment in the field is fast and affordable.

In just a matter of weeks, vehicle-mounted GPS technologies can be deployed in a CSP's fleet and used to track:

- Actual vehicle location
- Vehicle status, such as whether the ignition is on or off, vehicle speed, number of stops
- Vehicle diagnostics

The value-add is then marrying up this real-time data with existing mobile field service management applications.

With a web-based GPS gateway, operators can create an interface that enables GPS vendors to send this valuable GPS-related information to the field service management solution.

In this model, the GPS vendor and field service solutions provider can determine how frequently GPS event data should be created and fed into the business' master database.

INTEGRATING GPS TECHNOLOGIES WITH MOBILE FIELD SERVICE MANAGEMENT SOLUTIONS CAN MEASURABLY AND SIGNIFICANTLY INCREASE PRODUCTIVITY, REDUCE COSTS AND DELIVER A NEW LAYER OF TRANSPARENCY IN A CSP'S BUSINESS.



REAL-WORLD VALUE

Combining the power of vehicle-mounted GPS technologies with mobile field service management tools creates a wide range of new data that can make appreciable differences in the way an operator manages field service.

For example, an operator can quantify with real world data how long vehicles, on average, are idling. This information alone gives operators the ability to calculate the real costs associated with unnecessary vehicle idling. With this data, operators can then incent technicians to reduce idle times and use the GPS/Field Service data to track and measure the success of those efforts.

CSG's own ROI studies of these technologies show dramatic business benefits. Assuming a fleet of 20,000 field service vehicles, the ROI analysis showed an operator could:

- **Reduce vehicle idle time by 25 minutes per vehicle per day**, translating into a reduction of \$6 million per year in fuel costs
- **Reduce Miles Driven** by 1.5 miles per vehicle per day with more efficient routing. This translates into a \$4.4 million cost savings
- **Increase productivity** by an additional 0.5 percent, which translates into a \$7.5 million savings

CSG'S POINT-OF-VIEW

No doubt, the combination of vehicle-mounted GPS and mobile field service management tools can help provide a new level of information to an operator's business.

As the largest provider of mobile field service management applications in the communications

industry, CSG suggests that operators take these best practices into account when considering how to leverage these tools.

- **Avoid data silos.** Ensure that your GPS technologies can fully integrate with existing field service management applications. This is a critical step in ensuring that data is holistic and represents what is actually happening in the field. Web-based gateways should be used to ensure this two-way communication between GPS in the vehicle and mobile devices used by technicians
- **Clearly understand your objectives.** Operators who succeed with these technologies have established clear objectives around what they aim to achieve with these tools. This will help the operator focus on which types of data an integrated GPS tool should produce
- **Define, measure and coach to 'best practices' within your organization.** What is the expected behavior? How can you measure that? Tie to your technician scorecards to reward high performers
- **"Sell" the benefits of GPS to the field.** The most successful programs motivate technicians and dispatchers to leverage GPS to improve an overarching goal, such as improved safety or reducing carbon footprint through less vehicle idling time
- **Be careful not to overanalyze.** GPS can produce an overwhelming amount of data. Stay focused by developing a few key metrics that tie back to your defined best practices and then measure, communicate and reward based on those metrics



- **Identify and leverage opportunities for process improvements** that leverage location-based data, such as:
 - **Customer experience.** Use vehicle/tech location to communicate ETA to your customers (or allow them to check tech status via a customer self-service portal)
 - **Routing.** Use GPS to identify closest available technician
 - **Productivity.** Set up geo-fence areas to identify trips and durations to/from the tech's start location, warehouse or office in order to evaluate opportunities for additional efficiencies
- **Pinpoint mileage and fuel costs.** Utilize GPS information to identify miles driven, fuel consumption and job/task durations that can help you enhance routing processes and resource planning

CSG Field Service Management is part of the company's Customer Communication Management (CCM) portfolio, which customers utilize to send over 1.5 billion messages to their end-users each year across a diverse set of channels including print, SMS, email, online, and automated voice. CSG CCM provides flexible, personalized customer communications management and field service management solutions in an integrated approach to help deliver a unique customer experience across all digital and traditional channels.

ABOUT CSG

CSG is a provider of software and services that help companies around the world monetize and digitally enable the customer experience. For more than 35 years, CSG has simplified the complexity of business, providing revenue management and digital monetization, payments, and customer engagement solutions to help our customers tackle any business challenge and thrive in an ever-changing marketplace.

Operating across more than 120 countries worldwide, CSG manages billions of critical customer interactions annually. CSG is the trusted partner driving digital innovation for hundreds of leading global brands, including Arrow Electronics, AT&T, Charter Communications, Comcast, DISH, Eastlink, Formula One, iflix, MTN and Telstra.

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