AssetWORKS

A Guide to Resolving Key Mobile Workforce Challenges

Managing a mobile workforce is not easy. Whether it is an oil and gas fleet, utility company, or a field service provider, making an operation more efficient is a challenge.

This white paper will discuss the main challenges managers face when overseeing mobile workers, and the top ten ways to minimize these challenges while improving efficiency. A mobile workforce management (MWM) solution gives companies across this industry the tools and technology to manage the work, the people and the assets in the field. This class of technology works to transform operations in two very significant ways: by increasing revenue and by decreasing costs.

Key Issues

Issues that are commonly experienced across the industry affect the efficiency of a company's workers as well as operational processes. These are the key issues mobile workforce management technology addresses:

Manual data entry processes: Collecting accurate data from workers in the field is a big challenge which typically involves time-consuming paperwork and manual data entry, as well as being prone to errors. It also slows the billing, invoicing and payroll cycles. Getting accurate data is imperative to successfully evaluate operations.

Communication between field operators and the office: Inefficient ways of communicating lead to time wasted by both office staff and field operators. Repeated contact attempts, waiting on hold, and leaving messages all waste time. With field operators working in remote areas without network coverage, the situation is even more problematic.

Asset tracking: It's often difficult to know exactly where field operators or vehicles and equipment are at all times and what they are doing. Knowing if field operators are starting work on time, or taking unauthorized breaks with company vehicles, can be crucial to improving efficiency.

Driver behavior costs: Fuel consumption can really drive up operating costs, and poor driving habits are a big culprit. Whether a fleet has 5 or 5,000 vehicles, monitoring speeding, and improving fuel consumption and how vehicles are being driven can make a huge impact on fuel costs.

Operator Safety: Operator safety is always a concern. Maintaining safety standards as well as finding ways to improve safety, particularly for remote workers, is a critical challenge.

An MWM solution is the most effective way to manage these challenges. This technology can be tailored to specific business needs and integrated with existing infrastructure to help any company deal with the unique fleet management issues they face.

The Technology
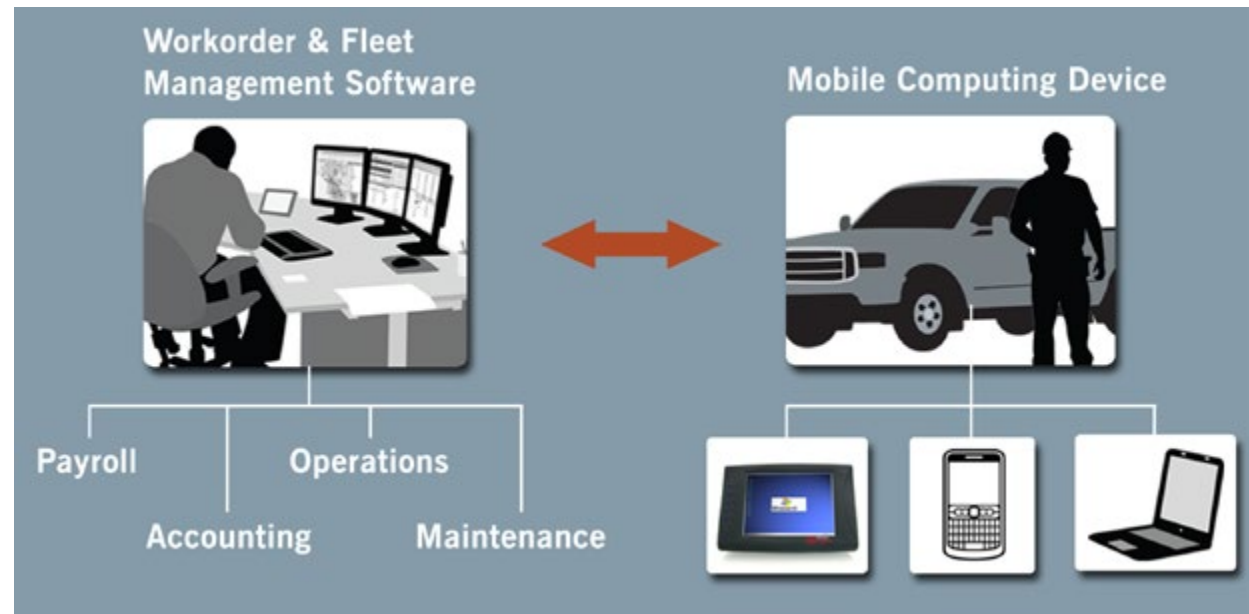
An MWM solution includes a software program installed in the office. Typically this software will have fleet management, driver behavior and work order management modules included. This software can be integrated with existing back-end platforms such as billing, operations, or maintenance.

Mobile devices such as laptops, smart phones, or mobile computers are used in every vehicle and rely on a cellular or satellite connection to provide wireless communications and exchange data. Mobile applications which run on the mobile devices allow field operators to complete work orders, get job information, manage inventory, navigate to job sites, and complete any other business processes required.

Increasing Revenue

The reality is simple: more jobs equal more money. A mobile workforce management solution increases efficiency and productivity so more jobs can be completed every day, increasing revenue. Efficiency and productivity changes happen by automating manual processes, increasing data accuracy, utilizing asset tracking, implementing in-vehicle navigation, and improving communication between field operators and office staff.

Automating Manual Processes

Automating manual processes is an effective way to free up time for both office staff and field operators. For example, a field operator typically fills out field tickets or work orders by hand, and submits them at the end of the week or month. A data entry clerk then has to input the data from the field ticket into the system. With MWM technology, data is sent to and from the mobile worker or vehicle automatically as the worker does his job.

The benefits of working this way include no paperwork for field operators to fill out, eliminating the administrative overhead of manual data entry and saving field operators time. Once a work order is completed on the mobile device, the back-office system is updated in real-time. This means customers can be billed the same day work is completed, speeding billing and payroll cycles. Field tickets can also be generated electronically and sent directly to the operator's mobile device to further increase efficiency.

Increasing Data Accuracy

Data is prone to inaccuracies if field operators fill out work orders by hand, sometimes hours or days after they finished the job.

However, having job data time-stamped throughout the day means the where, when, and what field operators are doing is always known. Collecting better data means that operations are run more efficiently.

Asset Tracking

Asset tracking allows the progress of any operator, vehicle, or item like a trailer to be followed. With this technology, office staff know where all the operators are and can send the closest or most appropriate worker to a job, and field operators can complete more tickets per day. This allows companies to easily accommodate emergency and last-minute jobs to provide better customer service.

This technology can also be used to enhance a company's journey management program. Vehicle and operator tracking is a simple way to reduce the risk to employees and assets while they are on the road.

> A large Fortune 200 firm has been using a combination of mobile workforce management and satellite technology to track their trailers. In this situation, the organization owns their trailers and the contents of the trailers, but is contracting trucking companies to do the liquid hauling for them. By tracking their trailers and contents of their trailers, this liquid hauling firm can keep direct tabs on their high-value assets and know exactly where they are at all times.

In-Vehicle Navigation

Whether field operators work in remote areas or need to navigate on ice roads, which can change every year, in-vehicle navigation ensures they won't get lost and waste fuel driving extra miles trying to find their way. It also eliminates the need for paper maps, which saves time as well.

Integrated with work orders and field tickets, well site or Legal Sub-Division (LSD) coordinates are on the mobile devices and all field operators have to do is simply follow the turn-by-turn directions to the location. Additional GIS data layers can be added and specific mapping data relevant to each company can be displayed on the mobile devices. This in-vehicle navigation flexibility has the added benefit of saving time for office staff as they don't have to be on the phone giving directions and helping field operators who are lost.

Improving Communication

Office or call center staff can end up spending a lot of time trying to relay information to field workers which is time that could be better spent helping customers. An MWM solution makes communication between field operators and office staff instant. There is no more phone tag: if office staff need to get information to a field operator, they can easily do that by sending messages in real-time directly to the mobile device. Even if the worker isn't answering, office staff can be confident knowing he will get the message, which allows them to move on to other tasks.

> A leading international provider of specialized rental oilfield instrumentation systems for use on land-based drilling did an audit of their Help Desk phone traffic and found that 30% of the calls were Help Desk Attendants dispatching calls to the field operators. This meant that 30% of the time, the Help Desk Attendants weren't performing the main function of their job, which was to assist customers. Since implementing a mobile workforce management solution, the company has been able to increase the efficiency of their service call process. If one of their customers has a problem with their equipment, field operators can initiate service calls directly from their in-vehicle mobile computer, saving time. Help Desk Attendants can simply enter the information and immediately forward it to the field operator, eliminating the need to call the operator while he is driving.

Decreasing Costs

The other way a mobile workforce management solution can help operations is by decreasing costs. Implementing an MWM solution can significantly reduce costs in five critical areas: payroll, billing, data entry, driver behavior, and vehicle wear and tear.

Payroll

Technology can significantly reduce the time and costs associated with payroll processes. Payroll data is automatically collected and time-stamped as the field operator goes through his day, so payroll data is as exact as it comes. Hours worked are automatically calculated and tracked by the system which can minimize unnecessary overtime hours.

Billing

As this paper has established, billing is always precise as the exact amount of time field operators spend at the job is recorded automatically.

Capturing real-time data and hours leads to much faster billing and invoicing. Same day billing can speed up payment cycles by up to 3 months for most operations. In addition, fast-tracking the billing cycle also reduces the cost of carrying payroll. Generally, a company will need to pay a field operator's salary well in advance of being able to invoice their customers; automating their work force can help companies close this gap.

Data Entry

In a mobile workforce operation, there are two areas where data is collected: in the field and in the office. Using a traditional system means that there are two places where manual data entry has to happen. Manual data entry not only eats up a lot of time and money, but is error-prone and inefficient as well.

An MWM provides a single point of data entry which means information doesn't need to be entered twice. Automating manual data entry in the field optimizes workflow to save time, and time savings translates into money saved as well. Also, staffing requirements are minimized and business can expand without the need to hire data entry staff or third party data entry organizations.

> A Fortune 200 liquid hauling firm has been using an MWM solution, which allows operators to electronically create field tickets and sends that data into their back-end system automatically. As a result, their invoice turnaround time has gone from 1 to 2 months to 1 to 2 days. This has significantly reduced their costs of carrying payroll.

Driver Behavior

In addition to managing the work order and data collection processes more efficiently, a mobile workforce management solution also includes standard driver behavior functionality, such as monitoring fuel consumption.

Reducing fuel consumption is one of the most important issues facing managers, and at the same time it is hard to control effectively. When fuel costs account for 30% of most fleet budgets, finding ways of reducing consumption can make a big difference. MWM technology allows companies to monitor driver behavior in order to track how much fuel is being wasted when field operators speed or idle unnecessarily.

For example, often when summer rolls around and the temperatures rise, drivers like to turn up the air conditioning. This in and of itself isn't a big issue, but when field operators go to jobs and leave the engine running to keep the vehicle cool, it can become expensive and drive up operating costs.

When it comes to speeding, studies have shown that reducing driving speed can lower fuel consumption by up to 14%. Driving even a small amount over the speed limit for a prolonged period of time can drastically reduce fuel efficiency. Also, speeding puts field operators in danger and increases a company's liability in the event of an accident. Speeding on a leased or private road can also negatively impact a company's ability to do business.

Vehicle Wear and Tear

A mobile workforce management solution also makes certain that vehicles are being driven properly, which results in longer vehicle life spans and lower maintenance costs.

Vehicle diagnostic information can be pulled directly from fleet vehicles and integrated with maintenance programs to ensure that vehicles are being serviced when needed to avoid downtime and costly repairs, as well as preventing expensive maintenance work.

Scheduled vehicle maintenance can also be tracked and automated maintenance reminders can be generated for fleet maintenance personnel. This can ensure that vehicles are not being under- or over-maintained, and wear and tear is reduced.

> Operators working with a Fortune 200 utility company demanded that all vehicles be equipped with 4x4, which added between $5,000 and $10,000 to the cost of each vehicle. Using mobile workforce management technology, the company was easily able to track their 4x4 usage and found that it wasn't being engaged as much as the operators claimed. By doing this they were able to evaluate what types of vehicles were needed and established significant cost savings on their next fleet buy.

Intangible Benefits

This paper has examined how mobile workforce management technology can be used to generate time and cost savings, but an MWM solution can provide significant benefits that are more intangible but just as important, too.

Safety and Risk Management

The biggest intangible benefit affects safety and risk management. In addition to driver behavior monitoring for speed and idling, the solution can help determine whether vehicles are being driven in a safe manner. For instance, the system can detect if field operators are driving without their seatbelts fastened and can send alerts when lane departures and vehicle crashes occur as well. Companies can use the data provided by the system to generate driver report cards, making field operators accountable for their performance and whereabouts.

Being able to track the precise location of field operators and real-time communication between field operators and office staff increases the effectiveness of journey management programs. Knowing exactly where field operators are also means that emergency responders can be sent to an accident scene without delay.

Reporting Optimization

Some of the greatest benefits of a mobile workforce management system are experienced by the manager. Managers will have greater transparency into all areas of their operation so they can optimize business practices. With the variety of performance reports the system can generate, it is easy to measure and analyze all aspects of the business to get an accurate view of operations.

Environmental Initiatives

Mobile workforce management technology can also be used to support company green initiatives. This technology minimizes fuel and resource consumption both in the vehicle and in the office, leading to a reduced impact on the environment.

Competitive Advantage

And finally, an MWM solution allows companies to be more competitive. Companies who use this class of technology effectively differentiate themselves from competitors. Customers respond to better service and more accurate billing. It's hard to quantify the return on investment from providing better customer service, but think about the value of adding an additional customer each month based on great customer referrals, or retaining a customer otherwise lost due to customer service issues.

Conclusion

A mobile workforce management solution is the most effective way to manage the challenges of a mobile workforce, and streamline operations. No matter what type of mobile workforce you manage , chances are you could benefit from greater efficiency. Mobile workforce management technology gives you the tools to decrease operating costs and grow your revenue. Without it, you are just leaving money on the table.

AssetWorks Field Service Solution
A Complete Mobile Workforce Management Solution

AssetWorks Field Serivice Solution puts fleet management and driver monitoring at your fingertips. Tailored to each client's unique business environment, the solution delivers Automatic Vehicle Location (AVL/GPS), work order management, driver behavior and lone worker monitoring, driver logs, reporting, and maintenance capabilities.

For more information on AssetWorks' mobile workforce management solution, visit www.assetworks.com

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