

SERVICEMAX

FIELDFX

FIELDFX ASSET MANAGEMENT

5 WAYS TO IMPROVE FIELD OPERATIONS AND RESOURCE UTILIZATION

AT A GLANCE

In 5 Ways to Improve Field Operations and Resource Utilization, you'll learn how a mobile field operations management solution can revolutionize your field ticking process. FieldFX is an electronic field ticketing system that allows field technicians to digitally:

- Produce accurate field tickets
- Complete operational forms
- Generate professional ticket reports
- Capture signatures

BENEFITS

- Seamless communications
- 100% accurate
- 100% paperless
- Faster payment
- Lower costs
- Contract compliance
- Standardization
- Higher Productivity
- Actionable reports

INTRODUCTION

With the challenges inherent in today's modern environment, it's important for operations leaders to look for opportunities to utilize new technologies and to optimize resource utilization. These new technologies allow for tracking and managing operations at unprecedented levels and in new environments, but also bring a plethora of choices around new or improving technologies such as smart phones, GPS, RFID, On-Demand/Cloud Computing, barcodes, scanners, and the latest generation of tablet computers.

When facing change, many questions arise for operations management, such as...

- What data is the most valuable?
- What are the proper approaches and technologies to utilize?
- Which deliver the most "bang" for the buck?
- How can different solutions and the resulting flood of data be integrated into an overall operations flow?
- How do you accommodate for different personnel skill sets and ensure adoption by field personnel?

FieldFX has a long history of working with various companies involved in field operations. Some of these organizations are technology leaders, implementing cutting-edge technologies and experimenting with new processes. Others are more traditional, basing their operations on tried and true manual processes and examining how to enable those using electronic solutions. We've seen elements that work and technology add-ons that are extremely valuable, and yet also garnered a fair amount of lessons learned from observing the operations arena. We would like to share a few thoughts and considerations to serve as a guide as you consider new electronic solutions to optimize your field operations.



1. Electronic Operations, aka "Paperless Ops"

The most obvious opportunity for improvement is the implementation of an electronic platform for field operations, or at a minimum, the adoption of individual elements of such a solution. This approach is sometimes called going paperless. At its most basic level, this method was first introduced as a simple scanned copy of paper items such as service tickets or delivery receipts with identical electronic copies. Later this became slightly more sophisticated as the documents were captured as structured data that could be represented on devices and later reported. Both of these approaches, while valuable, represent only the tip of the iceberg when it comes to the value that a comprehensive field operations solution can provide. Let's examine some elements of a complete mobile field operations solution.

Fully Electronic/Error Reduction

It's estimated that every time a piece of paper documentation is generated by field operators and sent to the back office, a minimum of \$10 in costs is also generated to process that paper. Problems with legibility, re-entering the data into electronic systems, errors that are introduced into the system, and difficulty in integrating this paper with customers all add delays and costs. A structured data representation that allows for field-generated data to be fed into back office systems and presented to the customer gives modern solutions optimal speed and leverage.

Configure vs. Capture/Validation/Rules

Solutions that simply capture documentation, such as those involving scanners or simple pick lists, fail on several levels. These solutions have no internal logic or error prevention, and simply reproduce the problems of paper in an electronic format. It's important that your field operations solution perform validation of data entered, preventing invalid configurations and

improper data entry. Artificial intelligence elements such as rules and knowledgebase are extremely valuable additions. Examples in this category are solutions that can automatically configure themselves based upon job conditions or assigned equipment or that have configuration engines that step users through job setup.

Customization

Obviously it's also important that any platform adopted be flexible enough to capture the elements of a particular operations flow, organization, or government/customer requirement. From changing the location and appearance of screen elements to the attachment of different required data entry points, the solution should be configurable to both your company and industry.

Data Availability

The solution must satisfy customer demands for process, including, if necessary, customer signature, emails, and approvals. The data captured in the solution should be available to other back office systems and email.

2. Proper Modeling of the Process

Perhaps the most important factor in improving operations involves structuring the electronic data into its proper elements and dealing with this data in a manner that allows for efficient scheduling, fulfillment, and analysis. First generation field operations solutions took individual elements of the process such as field tickets or dispatch orders and made them electronic. While valuable, this approach doesn't capture the relationships between resources that allow for optimal planning and utilization. For example, dispatching a piece of technical equipment without the system attaching all the required personnel and consumables associated with it limits the value. An optimal solution not only is aware of these associated items but also knows their locations, readiness level, and suitable and available replacements. When all of these elements are in place, operations managers can not only plan immediate operations but can begin planning future consumable, maintenance, personnel, and other resource requirements.

3. Flexibility with Standardization

Any adopted platform must allow for best practices to be overlaid on the solution, yet be flexible enough to allow operations to continue in remote environments. Field personnel must have full access to the data which allows them to perform operations even if the back office is unavailable. Tools and technology that streamline workflow are important enablers. Let's examine some of these:

Tools

■ Data

Field personnel must have full access to the data which allows them to perform operations even if the back office is unavailable. Whether adding line items to a field ticket or requesting spares, access to the master data and appropriate configuration specifications allows for single-entry without later costly "fix up" from other personnel. Current and accurate pricing information also allow for better coordination with your customers and minimizes approval delays.

■ Rules Engine

A rules engine that supplements individual worker knowledge and enforces standards is an extremely valuable capability. Items that have been previously lost or unbilled can be automatically captured, and unsafe configurations can be prevented. This capability can also allow personnel with lower experience levels to configure complex operations. Corporate knowledge captured in the rules engine provides an important backup capability to senior personnel.

■ Collaboration

The ability to collaborate with other field workers and back office personnel is an important element. From enriching tickets with additional notes to requesting back office involvement, the collaboration capabilities of the FieldFX platform are a significant benefit.

■ Workflow

The solution should provide mechanisms to enforce standardized workflow, such as customer approval process.

■ Integration

The solution should provide integration opportunities with other electronic systems. An Open API makes it easier to seamlessly integrate with your existing systems.

■ Additional Documents and Forms

Many times a company has additional documentation specific to their industry or organization such as Job Safety Assessments, logs, etc. While an electronic solution may not come "out of the box" with the exact document, it should be easily customized to provide for the capture of this information.

Technology

■ Smart Client

Even in the best communication environments such as around major metropolitan areas, problems such as equipment failure, shielding, and capacity issues still can prevent a field solution from outside communications. It's important that any solution be autonomous in these situations and yet flexible enough to reestablish communications and transfer data.

■ GPS/RFID

A solution should provide integration points for technology such as GPS or RFID.

■ Attachments

Video capture, procedures, manuals, and other reference documentation are often useful in the field environment.

■ Leverage Existing Assets

Your existing accounting, payroll and other IT systems are complimented with the FieldFX platform. Using our Integration Adapters or the FieldFX Web Service API, existing IT assets can be easily integrated into the overall solution.

4. Effective Analysis

Effective analysis is a key component to optimizing your field operations and is now available as part of a mobile field operations solution. The ability to measure production details, as well as to create and generate custom reports is vital to a company's success.

Measuring

Due to the demands made on field personnel and the flood of data coming in, many organizations don't capture the full extent of what's happening during operations. For example, they capture that a service was performed, but not the detailed start/stop times, consumable usage, ancillary equipment, personnel involved, etc.

Report Generation

Any solution should have a robust reporting mechanism, with a full featured security model that allows proper access. The ability to create your own custom reports is also a valuable feature.

Availability and Distribution

Reporting should be available to the proper personnel. A web-based reporting solution provides wide distribution capabilities for users at distributed geographical sites and on a variety of devices. Email integration is also a valuable capability for the dissemination of reports, whether an alert system based on incoming data, or a regularly scheduled distribution list.

5. Involving Your Customer

One often overlooked opportunity for improving operations and increasing resource utilization is optimizing customer involvement. Customers are traditionally involved at the beginning (ordering) and the end (invoice approval) of the process, but having the ability to keep them involved throughout the process can prove quite valuable.

Tracking

Providing oversight capability into your internal operations (at the level deemed appropriate) can dramatically speed approvals and raise customer comfort and satisfaction levels.

Approval

Providing mechanisms for customers to interact with your field operations solution, from notification emails to electronic approvals, can dramatically speed the process.

CLOSING

We hope we've provided you with some interesting points as you consider improvements to your field operations. We're very interested in the impact of technology on challenging field operations. Please let us know if you have any thoughts on these topics or would like to work with us in solving your operations challenges.

Complete Mobile Field Operations Management Solutions

The FieldFX product suite is a complete mobile field operations management solution, providing companies in the oilfield, industrial and environmental services industries with the ability to organize and manage jobs, quotes, field tickets, equipment, contracts, price books and labor along with customer-specific electronic forms.



SERVICEMAX

FIELDFX

www.servicemax.com | info@servicemax.com

© 2022 ServiceMax, Inc. All Rights Reserved. Designated trademarks and brands are the property of their respective owners.