

Field Service Management: Strategies to Improve Profit and Customer Loyalty

Section 01 Synopsis

This paper is for companies that provide service for installed equipment and machinery in customer locations. Field service may be a requirement for supporting your products, but it can also be a profit center that improves customer satisfaction at the same time. This paper presents how field service can be managed and made profitable using modern technology systems and strategies.

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Keys to making field service a competitive strength

Section 02

Introduction

Providing service for installed equipment and machinery in customer's locations (field service) is a significant source of revenue and profit for many equipment manufacturers, distributors and retailers, as well as a notable contributor to company reputation and customer relationships. The customer that is happy with fast, efficient service is more likely to become and remain a loyal customer over the long term.

Managing service efficiently, the key to making field service profitable and building that customer reputation, is not always easy to do. And it is critically important to make sure that the service is effective – including preventive maintenance that reduces breakdowns and lowers customers' overall cost, and repairs that are quick, with the right people, tools and parts available where and when needed. These principals hold true whether the maintenance and repair is done under warranty (at the manufacturer's expense) or at the customer's direct expense.

Companies with field-installed equipment must provide preventive and corrective maintenance, service parts, and supplies to support their installed equipment. But field service should be viewed as a growing profit opportunity and not just a necessary cost of doing business. By focusing on efficiency and effectiveness, and with the help of a well-coordinated team effort focused on delivering good support to customer-installed equipment, companies can make field service a competitive strength that increases sales and customer loyalty.

Field service should be viewed as a growing profit opportunity and not just a necessary cost of doing business.

Section 03

**The Right Tools
For Success**

Apply the same organizational strategies and systems to field service that have delivered proven advancement to manufacturing and distribution.

Integration for end-to-end field service management

To build that competitive edge, field services teams are turning to the same kind of organizational strategies and information tools that have delivered so much to the advancement of manufacturing and distribution—automated scheduling and dispatching, integrated management and accounting systems, and the power of databases, analytics and today’s sensor technology (Industrial Internet of Things or IIoT)—to continually improve service while reducing costs.

In the field service business, the primary areas for management attention that can be greatly improved with the right technology include:

Accounting and administrative tools

In accounting and administration, the obvious advantages of integrated operational and accounting systems ensure prompt and correct billing as well as full and proper financial records that make analysis and audits easy.

Inventory management and tracking tools

Inventory control is ripe for added control as many companies struggle with the very different needs and challenges posed by parts inventory planning and management as compared to the routine handling of production inventory that we generally have addressed successfully with our ERP systems. The tracking of installed equipment benefits from links to and from customer order transactions and data, engineering, and maintenance records.

Scheduling and dispatching tools

Scheduling and dispatching benefit from advanced tools that optimize technician schedules to get the most productive use of this valuable

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Success

resource, lay out the best routes for minimizing logistics costs, coordinating part and tool deployment for maximum availability, and coordinating with service requests to provide the best response to customer needs.

Success comes from integrated systems tied to customer management

It should be obvious that these functions can benefit from internal and external integration so that all areas of field service can work together to provide best use of resource while delivering the best service for customers; and tied tightly with ERP customer management, inventory management, sourcing, engineering, and finance and administrative systems to share relevant data, coordinate activities where possible, and avoid duplicate entry.

Section 04

**Scheduling and
Dispatching**

Getting your service technicians to the right place at the right time

In a field service business, effective deployment of the service technicians (a general term we'll use to include engineers, consultants, technicians, aides, etc.—anyone who is sent to the customer site to deliver services) is paramount:

- developing a schedule to make most effective use of their time;
- managing their daily schedule, routing, and assignments to provide the best service for customers;
- making sure the vehicles, tools and inventory are available where and when needed;
- and being able to redirect and reschedule when an emergency request takes priority over previously scheduled work.

Schedules can be developed in advance, particularly for routine and preventive maintenance tasks. Repairs are another story. In most cases, repairs are top priority and must be handled immediately in order to get equipment back on-line and productive. So, scheduling and dispatching (directing technicians from one location to the next) is challenged to make best use of the technician's time considering the ever-changing priorities as well as travel time and distance, and the availability of parts and equipment to affect the repairs.

An automation toolset, like Acumatica Field Service Management, develops the optimum routing for minimum transportation time and best use of technicians' time. Embedded Google Maps services display routes to help dispatchers make better decisions quickly. A visual dispatch board helps the scheduling team see the impact of potential responses to emergencies repair requests to help them determine the best way to respond to the change in priorities. Because it tracks the repair and

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Customer and equipment data are readily available via mobile device to help the technician complete the proper service – including the opportunity to provide additional services like preventive or scheduled maintenance.

maintenance history of each customer and each piece of equipment, Acumatica provides the responding technician with the information needed to assess the adequacy of the parts and tools currently on the service vehicle or have them delivered promptly so the repairs can be completed without unnecessary delay.

Mobile technology is critical to optimized scheduling and routing

Mobile technology helps field technicians stay in touch with changing schedules, of course, but also adds a new dimension of efficiency and control. Activity reporting through mobile technology keeps better track of technician time for more accurate billing and accounting while simplifying the reporting task by eliminating paperwork, manual calculations and missing data. Entered data—time spent, parts used, repairs completed, equipment history and more—are instantly updated in the billing, inventory and equipment history records.

Mobile technology also makes customer and equipment data readily available to help the technician complete the proper service – including the opportunity to provide additional services like preventive or scheduled maintenance that would be due soon, while already on site for a repair—saving time and money for the customer and the company. Technicians can also add pictures, from their phone or tablet, before and after the service call to add to the service record.

With Acumatica, technicians in the field have access to prior customer service information and what parts are under warranty and what are not. After the job is completed, the time and part used is instantly uploaded in real time to the system for faster and more accurate billing. This information is also then accessible to any future technicians who work on that customer's needs. Handwriting and grammar issues are taken out of the equation completely, providing a seamless experience that saves time (and money) on all fronts. Many mobile devices support voice recognition that allows the technician to dictate job site information instead of keying, and also use customer signature capture on quotes and/or completed service orders.

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Since the mobile device is connected in real-time to Acumatica, any dispatching changes appear on the mobile device immediately. Likewise, traffic information is constantly refreshed to provide the best current route to the next customer site. With Acumatica Field Service Management, technicians are connected anytime, anywhere on any device with a browser. There is no need to purchase expensive proprietary devices to be fully mobile.

The value of integrated tracking of installed equipment

Section 05

Tracking Installed Equipment

There's more to be gained from detailed equipment tracking. Easily manage scheduled maintenance, recalls, certifications, and compliance issues for your customers.

The above discussion of service operations gives a hint of the value of tracking installed equipment and its service history, but there's more to be gained from detailed equipment tracking. Having that information available to assist in provisioning of mobile inventory, as a base for tracking maintenance and repair history (linked to equipment engineering and use data for analysis, planning, and product improvement), and keeping records for warranty purposes are all obvious and important needs. But there's more value available.

The anchor for equipment tracking is the basic identity of the equipment itself, established when the equipment is sold and installed. This data should come directly from the sales order processing function and tie to engineering and manufacturing records to include model and revision level, configuration, performance and durability data (engineering specs, mean time between failures for critical parts and subsystems, recommended maintenance intervals), serial numbers and other identifying data. The equipment service database is a critical part of Product Lifecycle Management (PLM).

Serial number tracking

Serial number tracking is even more important in support of those engineering studies mentioned above and in cases where there is the potential for litigation or product recall (and where is that not a possibility in today's litigious world). The serial number is also part of the basic equipment identification that supports configuration history (as-is configuration to compare to as-built and as-designed). The Acumatica system keeps track of the service history for that equipment, including every part that was added to it or serialized part that was maintained or replaced. An unlimited number of serialized components and subsystems can be tracked to an individual piece of equipment.

Section 05:
Tracking Installed
Equipment

Certifications and compliance tracking

In some situations—medical equipment, commercial kitchens, elevators, to name a few—the distributor or manufacturer may need to regularly certify systems and equipment for health, safety, etc. This is an important part of preventive maintenance. Acumatica helps document these all-important certifications and helps field service businesses keep things up-to-date. Expired certifications and compliance creates major legal issues for customers. A supplier that helps its customers stay on top of these requirements will be considered a valuable partner.

Enhance customer loyalty with information availability

Don't minimize the importance of this traceability on customer service. Imagine how your customer will feel when they call in and the service rep has all of their equipment information right in front of them. "I see that XYZ machine was serviced last month and the tech noted that you may be running low on filters. We can put some on the truck going to your place to service ABC machine next week." Or "You're calling about your model 5? I see that it was last serviced over a year ago so it probably needs a level 2 overhaul at this point. Why don't we schedule that for next week and get it done when we install the new tool you called about?" Yes, it's selling—but it's also helping the customer keep their equipment running smoothly and reliably. And you're making it really easy for them in the process. This type of interaction is important, as it makes you a partner in the safe and effective operation of their equipment.

Better manage inventory of tools and parts

Section 06

Inventory Management

Each vehicle should be treated like a mini-warehouse—always know what tools and repair parts are available or on order at both the warehouse and vehicle level.

Field service inventory of tools and repair parts is typically spread across multiple vehicles and warehouse locations. With Acumatica, you can control and track these locations and costs. Being able to handle maintenance issues requires having the right parts—some of which are very expensive. It's not practical to carry significant quantities of all those parts, so repair organizations must balance supply and demand very carefully. Since inventory and purchasing are integrated, replenishment orders can be sent to a specific location and, when the parts arrive, the dispatcher can schedule the service appointment for installation.

Acumatica manages inventory using the same proven techniques used by our retail, distribution and manufacturing customers. Inventory records benefit from an automated receiving and picking process along with the simplified (usage) data entry on mobile devices in the field.

Inventory is controlled at the vehicle level—each vehicle is treated like a mini-warehouse. You always know what is available and what is on order by vehicle and warehouse. Transfers can be initiated and tracked easily between locations and vehicles.

When a service order is created and the required repair parts are not in stock (anywhere in the warehouse and vehicle network), the system can quickly generate a purchase order. When the item is received, the dispatcher is alerted so the service call can be scheduled.

Inventory usage data is captured for later analysis and for planning inventory policies for every item to maximize availability and deployment.

Section 07

**Analysis,
Accounting,
Administrative**

Integrate your analysis, accounting, and administrative info

The beauty of having an integrated system for field service, manufacturing and accounting is that the unified database can be exploited for ongoing improvements and savings. Reports and measurements (including KPIs, Key Performance Indicators) are much more meaningful when multiple aspects of the business are considered in context across functional areas.

Stay informed, always

Standard functions provide alerts when maintenance contracts are due for renewal, for example, to preserve your revenue stream and help customers avoid unpleasant surprises. Dashboard options include such information as pending service requests and status (ready for dispatch, awaiting parts, scheduled, etc.)

Apply business intelligence

At least as important is the ability to analyze the data and look for patterns and intelligence. Cross referencing repair history with usage information, location, or design details could lead to adjusted preventive maintenance recommendations or changes in part inventory policy.

Optimize financial accuracy

Integrated accounting and mobile technology help ensure that invoicing (and warranty cost analysis) are timely and accurate. Technician time is fully accounted for, customers are assured that warranty and contract costs are accurately credited, and part and material pricing is up-to-date and correct. Technicians never have to enter information manually or redundantly—it is logged into the system, everywhere it is needed, from simple entries on their mobile devices.

Section 07

Field Service Management – Great for Companies and Customers

Summary

Customers want and need their equipment to be in top shape and working effectively. Down time must be minimized through preventive maintenance and any problems or breakdowns must be quickly attended to. Your field service team is responsible for delivering on those mandates. Enable excellent field service with integrated Field Service Management applications to:

- **Schedule and dispatch service technicians** – use their time effectively, minimize unproductive travel time, respond to emergency calls quickly and efficiently
- **Deploy inventory optimally** to support maintenance and repair needs, track the receipt of needed parts to schedule installation as soon as they are received
- **Maintain full equipment identity, configuration and history records** to support service operations and provide intelligence for performance improvements and equipment support over the lifecycle
- **Exploit mobile technology** to remove administrative burden from technicians and make best use of their time
- **Ensure fast and accurate billing and accounting**
- **Build and use an extensive database** for analysis, performance improvement and best support for existing equipment and engineering the next generation

Acumatica Field Service Management System

The Acumatica Field Service Management system is a comprehensive and extremely customizable system, making it easy to implement for any type of field service business. Acumatica Field Service Management

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covers the entire range from quote to contract and billing/collection (for both contract and individual transactions), scheduling and dispatching, inventory management and deployment, accounting and analysis, and a strong link in the product lifecycle management chain. Track and manage the maintenance and repair process from shipment and installation through ultimate disposal, making your field service business effective and efficient, pleasing customers and generating a profit.

Quick Guide: Key Benefits of Acumatica Field Service Management

Expedite Assignments

- Quickly capture service needs and access customer information, product history, and resources
- Shorten the time between call receipt and job assignment

Track Resources

- Track resource commitments.
- Match tasks to best available resources
- Generate work orders automatically

Optimize Schedules

- Schedule the right people at the right time with the right skills to perform work
- Use the field services calendar scheduling board to create daily or weekly schedules automatically or use the convenient drag-and-drop tools

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