# PANORAMA
## CONSULTING GROUP

**THE 2023 TOP 10**

# Field Service Software Systems Report

# Table of Contents

**2**

# Introduction

Whether you dispatch resources to residential properties, commercial buildings, industrial sites, or other locations, you know that field service can be customers' most frequent encounter with your company.

While there are many different types of digital technology that can streamline field service operations, our experts have highlighted ten ERP systems and niche applications with particularly strong functionality for this industry. This includes modern and emerging technologies, such as artificial intelligence (AI), augmented reality (AR), and IoT functionality.

Ultimately, the system best suited for your organization will come down to your unique business needs as well as the gaps in functionality that might be in your current systems. If your company has complex requirements or many gaps in functionality, you will likely need to look at one of the systems in this report.

The right system may be the linchpin in achieving the next level of technician enablement at your company.

# 8 Signs You Need Field Service Management (FSM) Software

Before looking at the capabilities offered by various systems, you must assess your field service needs and pain points. Then, you can determine what features solve the problems in your business. Common pain points include the following:

### 1. Inefficient Scheduling and Dispatching

Manual scheduling and dispatching processes can be time-consuming, error-prone, and lead to inefficient resource allocation.

An FSM system optimizes scheduling and dispatching by considering factors such as technician availability, skills, location, and customer requirements. The software ensures that the right technician is assigned to the right job at the right time, maximizing productivity and minimizing travel time.

Most of the systems in this report feature some amount of AI for scheduling as well as route optimization. In some cases, you can choose from manual, AI-assisted, and fully automated planning options.

### 2. Lack of Visibility

Without a centralized system, field service organizations struggle with limited visibility into service requests, work orders, and technician activities.

A field service system provides real-time visibility into service operations, allowing managers to track job progress, monitor technician locations, and communicate with technicians and customers.

### 3. Ineffective Work Order Management

Manual work order management or the use of work order data imports or integrations can lead to delays, miscommunications, and incomplete documentation.

A field service ERP system streamlines work order management by automating the creation, assignment, tracking, and completion of work orders. This ensures accurate documentation and enables technicians to access work order details and update job status in real-time.

## 4. Poor Inventory Management

Many field services organizations struggle with inaccurate forecasting and stockouts.

A field service system helps organizations optimize inventory levels. For example, many systems can analyze real-time and historical data to ensure engineers have the right parts and materials for each job. This reduces service delays and improves first-time fix rates.

## 5. Lack of Customer Communication or Self-Service

Without convenient communication channels, customers may resort to lodging complaints or posting negative reviews.

A field service ERP system might offer features such as automated appointment reminders, chatbots, and self-service portals. Customers can even view the GPS location of their technician to see when they might arrive.

## 6. Inaccurate Financial Tracking and Invoicing

Manual processes for tracking service-related costs, generating invoices, and managing financials can be prone to errors. Similarly, importing financial data or using integrations can lead to inaccuracies.

A field service system that integrates with financial modules ensures accurate tracking of service costs, facilitates invoicing, and streamlines financial reporting. It improves billing accuracy, shortens payment cycles, and provides real-time financial insights.

## 7. Lack of Analytics and Performance Tracking

Field service companies generate large amounts of data from various sources, such as equipment sensors and IoT technology. The challenge is deriving actionable insights and discerning patterns from this data.

Field service ERP systems provide intelligent reports and dashboards, empowering organizations to make data-driven decisions. With the right analytics tools, organizations can achieve the following:

- Predict equipment failure through advanced analytics of historical data
- Move from descriptive (retrospect) to predictive or prescriptive analytics
- Enable self-optimizing systems that take autonomous action through self-learning and self-steering algorithms, with input from historical and real-time data

## 8. Lack of Mobility

A lack of mobile functionality or limited offline mobile access can lower worker productivity.

For efficient technical enablement, mobile workers, even contractors, must have access to remote assistance and knowledge repositories so they can troubleshoot difficult jobs.

Many field service management systems go beyond basic mobile functionality to provide live expert assistance accompanied by augmented reality. Features like this can boost first-time fix rates.

# How is AI Making Field Service Management More Efficient?

Field service applications powered by AI models, such as GPT, are making technicians more efficient. Some examples include:

- Automatically composing reports, like after-visit summaries
- Suggesting knowledge articles and generating step-by-step guides, which are especially useful for on-the-job training
- Analyzing real-time and historical data to ensure technicians have the right parts and tools for each job
- Making intelligent scheduling recommendations based on factors such as technician skills, fix times, locations, availability, SLAs, and spare parts
- Suggesting preventative maintenance on customers' IoT-enabled equipment
- Estimating the duration of a job based on data, such as job type, location, customer, asset, and technician
- Identifying patterns on cases, service requests, work orders, and installed products that lead to unnecessary truck rolls

Field service teams are critical to business growth. By providing positive customer experiences and upselling products and services, technicians can drive customer loyalty.

AI-driven scheduling and AI-powered mobile apps are playing a vital role in improving the customer experience by proliferating on-the-job knowledge, reducing response times, and increasing first time fix rates. Ultimately, technicians are becoming more efficient, and the speed of service is driving customer satisfaction.

While some of the most advanced AI functionality may not yet be widely available, your company can still benefit from the AI available today.

Along the way, organizational change management is vital. Field service technicians for many companies still do things on paper and hand it off to a data entry person. With the introduction of new software, technicians must acclimate to doing some data entry themselves. Fortunately, much of this can be automated, and any extra steps required are outweighed by the convenient, on-site information that mobile apps provide.

Once you communicate the business benefits to employees, you'll be one step closer to adopting the technologies that will grow your business.

# 8 Essential Field Service Management Features

Field service software should help your business achieve the following:

- Understand the quality of your products and services.
- Manage an inventory of spare parts and MRO items (if it is tied to your ERP procurement system).
- Access on-site reporting of problem resolution as well as invoice submission to the client.
- Track product lifecycle costs (if tightly connected to your corporate financial system).
- Enhance the customer experience (if it is closely tied to your customer service organization).

Often, smaller niche applications have more state-of-the-art features than those built into ERP systems, but ERP systems continue to evolve.

If you're considering a niche field service system, remember that this could require tight integration with your ERP system. When making the decision, consider that there may be significant costs to integrating a field service system with an ERP system.

Regardless of the type of field service system you're considering, here are some features to prioritize:

### 1. Scheduling and Dispatching

The system should allow efficient scheduling and dispatching of field service technicians. It should optimize routes, minimize travel time, and ensure timely service delivery. This is one of the functional areas where AI is most prevalent.

### 2. Work Order Management

The system should enable the creation, assignment, and tracking of work orders. It should capture detailed information about service requests, assign tasks to technicians, and track progress throughout the service lifecycle.

### 3. Mobile Access

Field service ERP systems often include mobile applications or interfaces that are designed for technician enablement. Technicians gain online and offline access to job details, knowledge bases, collaboration tools, and remote assistance.

## 4. Asset and Inventory Management

The system should include features to manage and track customer assets, equipment, and inventory. This ensures that technicians have access to the necessary parts and materials. Look for a system that tracks inventory levels, replenishment, and order management in real-time.

## 5. Customer Communication and Self-Service

Field service ERP systems often include customer communication features such as automated appointment reminders and self-service portals. Customers should be able to view real-time updates on a technician's arrival time as well as on-the-job status updates.

## 6. Reporting and Analytics

The system must provide real-time reporting and analytics capabilities to track key performance indicators (KPIs), measure service performance, and gain insights into operational efficiency, resource utilization, and customer satisfaction. In some cases, you may want to look for AI features, such as predictive and prescriptive analytics.

## 7. Integration With CRM and Financials

Integration is especially important if you're implementing a niche application. These applications must have tight integration with an ERP and CRM system. Unfortunately, not all niche applications have these integrations.

CRM integration ensures efficient work order management and seamless information flow from field service operations. ERP integration enables accurate tracking of service-related costs, invoicing, and financial reporting.

## 8. Predictive Maintenance

An ERP system with predictive maintenance capabilities utilizes maintenance and repair history data to determine the condition of in-service equipment. With such data, the system can estimate when maintenance should be performed and when a failure is anticipated.

By using predictive maintenance, unplanned downtime can be reduced, and the life of equipment can be extended. This approach promises cost savings compared to routine or time-based preventive maintenance where tasks are performed only when warranted.

**2023 TOP 10**

# Field Service Software Systems

## Quick Facts:

Headquarters:
**Kirkland, WA**

Sample Clients:
**Lifeway Mobility, Safety Management Group, Security Solutions**

Acumatica Service Management is an ERP application for small to mid-market companies designed for field service providers (as well as construction, manufacturing, and wholesale distribution companies). The vendor has an Equipment Management application that can extend the Service Management capabilities.

▶ Provides a mobile application for deliveries, installation, or remote service operations

▶ Enables you to optimize routes using Acumatica for WorkWave Route Optimization Native Connector

▶ Includes scheduling functionality that allows you to filter your list of technicians based on skills, certifications, location, and more

▶ Allows you to use emails, SMS, or push notifications to alert resources and customers of appointment assignments or modifications and receive confirmations in real time

▶ Provides a real-time view of the progress of an appointment with information on materials used as well as GPS location

# Quick Facts:

Headquarters:
**Linköping, Sweden**

Sample Clients:
**Smart Care Equipment Solutions, Panasonic Appliances, Konica Minolta**

IFS Services Management is a single platform encompassing Field Service Management, ERP, and EAM. It's designed for a variety of industries, including energy/utility/resources, manufacturing, service industries, and telecommunication.

▶ Features intelligent monitoring that continuously tracks the performance of assets, predicting issues before they occur

▶ Includes remote assistance that features augmented reality as well as real-time video streams that give agents and customers the same view

▶ Uses machine learning to analyze real-time and historical data to ensure engineers have the right parts and tools for each job

▶ Includes a customer portal that shows estimated time of arrival and provides a view of the technician en route

▶ Features AI-powered scheduling that considers factors such as individual engineer skills, qualifications, fix times, locations, availability, SLAs, and spare parts

## Quick Facts:

Headquarters:
**Redmond, WA**

Sample Clients:
**Team Rubicon, G&J Pepsi, UD Trucks**

Microsoft Dynamics 365 Field Service is a cloud-based solution that is packaged as a standalone application. It can also be integrated with other Dynamics 365 applications, such as Dynamics 365 Sales, Dynamics 365 Customer Service, and Dynamics 365 Finance and Operations.

▶ Uses AI and predictive analytics for preventative maintenance on customers' IoT-enabled equipment

▶ Includes a customer portal that shows estimated time of arrival and provides a view of the technician en route

▶ Provides step-by-step repair instructions that technicians can access via their mobile device

▶ Allows technicians to use Remote Assist which leverages mixed reality to provide training instructions

▶ Enables you to use IoT with your assets so you can pinpoint locations, use geofencing, and monitor asset health

# ORACLE

## Quick Facts:

Headquarters:
**Austin, TX**

Sample Clients:
**Bosch, DirecTV, Pella
Windows, T-Mobile**

Oracle Field Service is a cloud-based solution. Customers can implement the field services application as part of Oracle Cloud Service Logistics, which spans call center, field service, and supply chain activities.

▶ Allows workers to send notifications to customers via email or SMS to show real-time arrival status and provide rescheduling options

▶ Includes a mobile application featuring live-coaching video chat as well as chatbots that provide next-best action recommendations

▶ Includes IoT capabilities that detect anomalies, trigger self-repair commands, create work orders, and leverage digital twin visualizations

▶ Enables you to understand future service demand versus current capacity and test "what-if" scenarios

▶ Features AI in a time-based, self-learning, and predictive routing and scheduling engine

OverIT Next-Gen FSM Platform is a subscription-based platform designed for linear asset industries, including energy & utilities, oil & gas, telecommunications, and transportation. Mid-sized to enterprise-sized organizations can integrate the platform with their CRM, ERP, Asset Management, GIS, and IoT systems.

▶ Uses machine learning to estimate the duration of a job based on data, such as job type, location, customer, asset, and technician

▶ Includes mobile collaboration features to assist physically separate workers, leveraging AR features and annotations, content sharing features, and digital work instructions

▶ Facilitates both in-person and remote training using mixed reality and virtual reality

▶ Provides an integrated view among cartography, 2D and 3D GIS, assets, work orders and field resources

▶ Allows your customers to add on their own custom modules to meet their specific needs

## Quick Facts:

Headquarters:
**Fiume Veneto, Pordenone**

Sample Clients:
**Whirlpool, enercity, Culligan**

Salesforce Field Service is an add-on to Salesforce Service Cloud. The core application is an AI-powered CRM that integrates with Field Service as well as third-party systems.

## Quick Facts:

Headquarters:
**San Francisco, CA**

Sample Clients:
**Beldon Roofing**

▶ Includes an AI-powered mobile app giving workers and customers on and offline access to self-service tools and knowledge (expected to be available in beta by December 2023)

▶ Features a visual remote assistant utilizing video chat

▶ Gives you the option to extend field service functionality by implementing Appointment Assistant, which automatically gives customers up-to-date information about their appointment using email, SMS, or WhatsApp

▶ Includes cross-selling and upselling features in most packages

SAP Field Service Management is a cloud-based solution that is part of the SAP Intelligent Asset Management solution portfolio. It has native integration with the SAP ERP application and SAP S/4HANA.

▶ Automatically transfers time, materials, and mileage costs to back-office functions to be used for billing, reporting, and quality assurance

▶ Allows you to choose from manual, AI-assisted, and fully automated planning options for scheduling and dispatching

▶ Provides mobile tools such as knowledge bases, guided procedures, and checklists

▶ Includes IoT capabilities that enable you to use sensor data to detect issues early and provide preventive maintenance

▶ Gives you the option to integrate an augmented reality remote support solution that enables your technicians to collaborate virtually

## Quick Facts:

Headquarters:
**Waldorf, Germany**

Sample Clients:
**Bosch Rexroth, Siemens Gamesa, Sidel Group**

# SERVICEMAX
## a ptc technology

## Quick Facts:

Headquarters:
**Pleasanton, CA**

Sample Clients:
**3D Systems, DISH Network, Kodak**

ServiceMax has three solution options: ServiceMax Core for asset-centric industries, Asset 360 for Salesforce for businesses using Salesforce that need to bridge the data gap, and FieldFX for energy service companies.

▶ Includes a real-time communication solution that connects mobile workers with experts, the back office, management, and each other

▶ Allows technicians to access information about equipment maintenance history, product configuration, exact location, and more

▶ Allows you to securely share information with contractors and give them the ability to look up information, such as available parts, service contracts, and warranty details

▶ Includes a customer portal with troubleshooting information as well as functionality for creating service requests, viewing work orders, and more

▶ Offers features to handle return merchandise authorizations, field change orders for asset-driven recall management, depot repair, trigger-based auto replenishment, ad-hoc parts requests and more

▶ Embeds machine learning to identify patterns on cases, service requests, work orders, and installed products that lead to unnecessary truck rolls

# servicenow.

[ServiceNow Field Service Management](#) is a single, subscription-based platform that integrates field service with customer service. It provides scalable packages that grow with businesses as their needs change.

## Quick Facts:

Headquarters:
**Santa Clara, CA**

Sample Clients:
**Xerox, Siemens, Antares Vision**

▶ Features a mobile agent with features such as incident oversight, real-time status updates for work assignments, knowledge articles, and offline access

▶ Allows you to extend field service management capabilities using partner solutions, including augmented reality tools and IoT connectivity

▶ Automates processes using AI and leverages machine learning to make recommendations for improved efficiency

▶ Includes a chatbot that helps customers and employees resolve common issues

▶ Provides out-of-the-box integrations with Slack, Microsoft Teams, Facebook Messenger, Workplace by Facebook, and WhatsApp

▶ Analyzes technician skills, availability, and location for dynamic, automatic scheduling

# ServicePower

ServicePower provides solutions for companies with an employed workforce, a contracted workforce, and a blended workforce. It's designed for industries such as building technologies, appliances & electronics, home warranty, insurance, power & utilities, property management, retail, and telecommunication.

## Quick Facts:

Headquarters:
**McLean, VA**

Sample Clients:
**Siemens, AIG, LG Electronics USA**

▸ Includes a self-service customer portal that allows customers to schedule, reschedule, and cancel appointments, while viewing real-time job status updates

▸ Provides real-time, AI-based route optimization with live map views providing visibility into all routes, locations, and job sites

▸ Features a mobile application that allows technicians to manage parts, inventory, and pricing, as well as conduct on-site payment processing and signature collection

▸ Provides real-time payment adjudication for field contractors with built-in validation, auditing, invoicing, and rapid reimbursement

# Conclusion

**Organizations providing field services need technology that can optimize resource allocation, improve customer satisfaction, and enhance overall service quality. This requires automation for scheduling, dispatching, work order management, technician enablement, inventory management, customer communication, and more.**

Modern field service applications have many features that were not available just a few years ago. Today's systems gather and analyze data from a variety of interconnected sources, enabling companies to make more data-driven decisions.

This technology is more accessible than ever thanks to innovations in the tech industry, such as AI as a service, analytics as a service, low-cost sensors, and improvements in IT infrastructure.

If you've seen an explosion in the volume of data you're collecting across your organization, it's time to take advantage of it. Sales data and shop floor data are key areas to tackle first, but don't forget about your field service data.

As the AI Revolution unfolds, you have the unique opportunity to transform one of your most essential customer-facing functions.

Our ERP consultants can guide you through all the steps on the path to software selection. Contact us below for a free consultation.

Click the Button Below to Schedule Your **Free Consultation**
With an ERP Systems Expert Today!

**FREE CONSULTATION**

# About Panorama Consulting Group

Panorama Consulting Group is an independent, niche consulting firm specializing in business transformation and ERP system implementations for mid- to large-sized private- and public-sector organizations worldwide. One-hundred percent technology agnostic and independent of vendor affiliation, Panorama offers a phased, top-down strategic alignment approach and a bottom-up tactical approach, enabling each client to achieve its unique business transformation objectives by transforming its people, processes and technology.

## Panorama's Services

(click to learn more)

▶ ERP Selection

▶ ERP Implementation

▶ ERP Contract Negotiation

▶ ERP University

▶ Digital Strategy

▶ Technology Assessment

▶ Change Management

▶ Human Capital Management

▶ Business Process Management

▶ M&A Integration

▶ Project Auditing & Recovery

▶ Software Expert Witness

(If viewing this in Adobe Acrobat, please follow these instructions to enable external links: https://helpx.adobe.com/acrobat/using/allow-or-block-links-internet.html)

Click the Button Below to Schedule Your **Free Consultation**
With an ERP Systems Expert Today!

**FREE CONSULTATION**