

Field Service Management

By Raluca Druta
www.technologyevaluation.com

MARKET LANDSCAPE
REPORT

Field Service Management

Introduction

Field service management (FSM) software has been developed over the past several years as a standalone solution that facilitates the automation of service activities supported by mobile or field workers. Systems such as customer relationship management (CRM) and enterprise resource planning (ERP) are not service focused, and therefore service-oriented organizations need software with specific requirements to deliver their contractual agreements. Over the past several months, Technology Evaluation Centers (TEC) has conducted research on FSM solutions and identified the core components required to meet the expectations of most end users.

Business Need for FSM Software: Main Features

FSM solutions are used to manage the resources needed for the installations, repair, and maintenance of equipment—usually residing at a business or customer site. This type of activity requires dispatching technicians to various locations where the equipment is placed and utilized. Besides the human resources needed for such tasks, FSM software also manages the tools required for repairs, the spare parts needed to replace faulty equipment components, and the interactions between technicians and customers.

To achieve maximum efficiency and quality, FSM software solutions require integration with other business software solutions—which complement FSM software with more robust functionality for CRM, human resources (HR), billing and finance, asset management, or inventory. Although third-party functionality is not critical for FSM software to achieve its main goals, companies usually need it to better manage their overall business processes (which may include production, sales, distribution, professional services, etc.).

Functionality integral to FSM focuses on determining the human and material resources needed to efficiently perform installations and repairs—preferably, at competitive cost. In addition, FSM is concerned with providing customers with positive experiences, while complying with legal and contractual agreements.

Customer engagement management

As FSM software manages installations and repairs, customers need to be current of the status of operations required to manage their equipment. Furthermore, customers should be notified whenever extra work is needed or when unforeseen situations may affect the timeline of a repair or deployment job, for example. Communication management functionality enables companies to meet these

customer expectations. A communication management tool typically considers the preferred communication channel for each customer (e-mail, phone, social media, etc.) before contact is made.

Customer service requests act as triggers that open most repair operations and are managed by the service provider as tickets. Many companies also use tickets for installation and maintenance tasks, which are not requested by the customer, directly through a call, but pertain to contractual agreements. Tickets are usually created outside of an FSM system (usually in a CRM system), but an FSM solution needs to keep the status of technicians' work up to date, including the resolution and escalation of tickets.

A service company may not always have all necessary resources to fulfill all demands received from customers. Consequently, companies have agreements with partners or contractors to help them ensure all contractual obligations are met. Partners can also help with highly sophisticated operations that a company is not qualified to perform, or can provide services in geographical regions where a service company is not present. As the relationship between a company and its partners impacts a company's customers, FSM solutions typically include support for partner/contractor relationship management—thereby supervising and ensuring high-quality service to customers on behalf of a company.

To charge the customer for the services provided, companies need functionality for quotes, orders, and billing. Based on a technician's expenses (gas, meals, etc.) and time to perform an operation, as well as the costs for spare parts or other materials and resources needed, an FSM solution estimates the cost for the entire operation. The estimate is sent to customers as a quote. When a customer agrees with the estimated cost, the quote becomes an order, which is executed by a technician. When the operation is completed, the order becomes an invoice, which is sent to the customer for payment. FSM software also manages possible changes that may occur during this process, such as price modifications, unexpected expenses, etc.

Contract and warranty management

Service operations are performed per the agreement between a customer and the service company. The agreement can stipulate limitations and constraints as to what qualifies for a ticket/case that can lead to an intervention, the number of operations delivered during a specific time period, the type of service provided, etc. In addition, financial conditions need to be fulfilled for the services company to deliver its services. For instance, an unpaid invoice exceeding an amount defined in an agreement can entitle the service company to refuse delivering services to a customer.

A detailed description of the responsibilities that a service provider bears toward its client is indicated in a service level agreement (SLA), a part of the agreement

that refers to the technical details of the relationship between the company and its customers. FSM software manages those details, such days and times when technicians are available for support, on-site or off-site, by location, the minimum and maximum time required to perform an operation, etc.

All equipment manufacturers provide warranty agreements to their customers, which need to be followed by the service company. Service companies need to have access to all warranty details needed for equipment installations and repairs. FSM software manages the contractual aspect of warranties by tracking different warranty types, renewals, templates, entitlement, etc., while most of the technical details are usually stored in other systems such as ERP and product lifecycle management (PLM).

Work order management

When a service company knows exactly what a customer needs and both parties have agreed on the price and the conditions that govern their relationship, the company will initiate operations by creating work orders. These work orders serve two main purposes: the first is to tell technicians what needs to be done and how, and the second is to track the tasks for each operation and to ensure that the right service is provided to the right customer.

As operations unfold, any changes to the initial work order need approval. Various types of approvals and their characteristics need to be managed by an FSM system. For instance, some approvals can be automated, while other changes may only be approved by a supervisor, as certain situations need a more detailed review and assessment. Triggers and alerts are defined to manage what causes work order changes as well as who receives notifications when changes occur, and when change requests are being approved.

From the initiation of a work order to the end of the operation, the FSM solution tracks the status of each operation and tasks associated with that specific order. Using FSM, companies can prioritize orders based on internal rules; group orders to increase the productivity of the technicians; provide technical details to technicians; or allow them to provide feedback regarding their work.

When the tasks associated with a work order has been completed successfully, the work order is closed. To avoid errors such as closing orders that are not finalized, or applying modifications to a closed work order, rules need to be defined. These rules prevent unauthorized people from closing orders or sending erroneous messages to field workers.

Inventory, logistics, and parts planning

Most service operations require the replacement of defective parts or components of equipment. Service companies rarely produce these components, so they need to buy them from either equipment manufacturers or parts

manufacturers and then perform the necessary repairs. Service companies typically acquire and store spare parts needed for the most common operations, while they order as needed those components required less frequently.

When service companies order spare parts and components for present or future operations, or for emergency/unplanned tasks, they need to store them and further manage the spare parts inventory. The FSM system provides basic functionality for inventory management and parts planning. FSM solutions also integrate with ERP and supply chain management (SCM) solutions when more complex functionality is needed for these purposes.

Spare parts can be ordered only when required. In this case, FSM software helps companies manage the logistics for ordering, tracking, and receiving parts. Requisitions and returns also need to be managed, as do notifications and alerts on changes that may occur while processing purchase orders.

Workforce forecasting and planning

Services companies need to manage the skills and availability of its personnel in order to deliver on time, on cost, and on quality. Although much of the information regarding skills and abilities is usually managed by a HR/human capital management (HCM) solution, the FSM solution needs to manage the employees' information required for workforce forecasting and planning.

To avoid labor shortages, service companies use FSM software to estimate their customers' needs for future services. Without being an exact science, workforce forecasting uses historical information and algorithms to predict how much labor would be required to fulfill contractual obligations during a specific time period. Advanced forecasting can be dynamic, which means that an estimation changes when new data is included in the analysis. Forecasting tools also allow for what-if-scenarios, which show what may happen if some of the conditions change (e.g., a percentage of the workforce is made unavailable due to a strike, the cost of labor increases by x percent, etc.).

Based on forecasting, the actual demand, as well as the skills and experience of each technician, human resources are allocated to tasks, operations, and work orders. External human resources (i.e. partners, contractors, etc.) will be allocated based on the same criteria. However, the cost incurred by third-party field workers is usually higher than that for internal technicians, which should be considered during planning.

Even though all tasks and operations have predefined execution times and costs, there can be many unforeseen disruptions that may impact the time and expenses required for completion of an operation. These disruptions (i.e., causes for the disruptions) need to be tracked by technicians. For instance, insufficient information to resolve a particular problem, an uncooperative client, and

sociopolitical events such as strikes and protests may all have an impact on the time and expenses spent by a technician to successfully complete a specific job.

Scheduling and routing

One fundamental function of an FSM solution is to track information about resources used for work orders. This information can be used to analyze resource performance and optimize future use of resources. To optimize planning, FSM takes into account the skills, experience, and availability of each technician, as well as the availability of tools, and the costs for both human and material resources. The goal is to deliver the best services at the lowest costs.

As this is not always feasible, service companies need to plan based on their priorities. Lowering the quality of the services provided is not a good option, but it may be adopted when the company is facing huge financial problems. For example, some companies may decide to do the bare minimum when verifying the quality of a job, or they may not gather customer feedback after a job has been completed. Exceptional services can rarely be delivered at a low cost. Therefore, businesses may need to consider whether a service of a certain quality can impact the overall profitability of a company. Sometimes, companies deliver high-quality service when they enter a new market or expand into new industries or geographical areas and then lower the quality of their services and adjust the cost accordingly, depending on the profits they make.

Companies can also optimize planning by using data transmitted by a global positioning system (GPS). For instance, by analyzing the trajectory of vehicles used by technicians, service companies can calculate how much gas is needed per kilometer or mile, or how long it took a technician to get to the customer. Based on maps and the shortest trajectories calculated by geographic information systems (GISs), service companies can plan routing for their technicians so that they cover as much territory as possible in the shortest time possible.

Mobile devices used by technicians can also provide valuable data for planning. From basic features for time tracking and options to change the status of a work order, to advanced functionality to find the nearest technician who is available for an operation, a mobile FSM solution makes technicians more productive and provides the necessary data for more accurate planning.

Mobility

Supporting certain processes on mobile devices is an essential part of an FSM solution. Mobile workers need to access and synchronize certain data from their mobile devices. For instance, the status and history of an asset, site, part, equipment, or customer are essential details that must always be available to a technician. Also, accessing technical documentation is required for accurate job execution. Time tracking is another must-have functionality for field technicians.

While performing their field tasks, technicians usually need to be able to download work orders, receive and sent real-time updates of field activity, or view their schedule. In addition, their devices should be equipped with the ability to book appointments, capture signature, scan bar codes, print customer receipts, or process payments.

Mobile FSM solutions should also include collaboration tools so that technicians can work together to solve problems. Mobile devices for field workers should be able to capture inspection and condition data, take photographs of equipment, or attach documents so that field workers can accurately report problems to their peers or managers.

Mobile field activity supervision requires functionality such as the ability for a supervisor to view the status of all work orders so that he/she can intervene when exceptions appear. Supervisors need to be able to modify the allocation of field workers in order to address possible shifts in priorities. In addition, a mobile FSM solution should display key metrics and dashboards for supervisors.

FSM Solutions Market Trends

This section of the report is based on aggregate data collected from more than 2,300 software comparisons performed using Technology Evaluation Centers' (TEC's) TEC Advisor software selection application. TEC Advisor contains detailed information about product capabilities for a wide variety of enterprise software solutions—Field Service Management to be added soon.

Using TEC Advisor, business decision makers provide information about the companies that they work for, which includes number of employees, annual revenue, industry, as well as time frame for a decision and project start.

FSM demand by industry

According to TEC's data, organizations seeking FSM applications fall mostly into categories that rely heavily on mobile workers to help meet critical business requirements. Industries such as manufacturing (including electronics and high-tech components, and food and beverage); telecommunications; and computer, IT, software therefore have a strong presence (see figure 1). This category also includes industries where large teams of remote workers are needed for the well functioning of the business, which is the case for wholesale and retail and trade; construction; and business services and consulting.

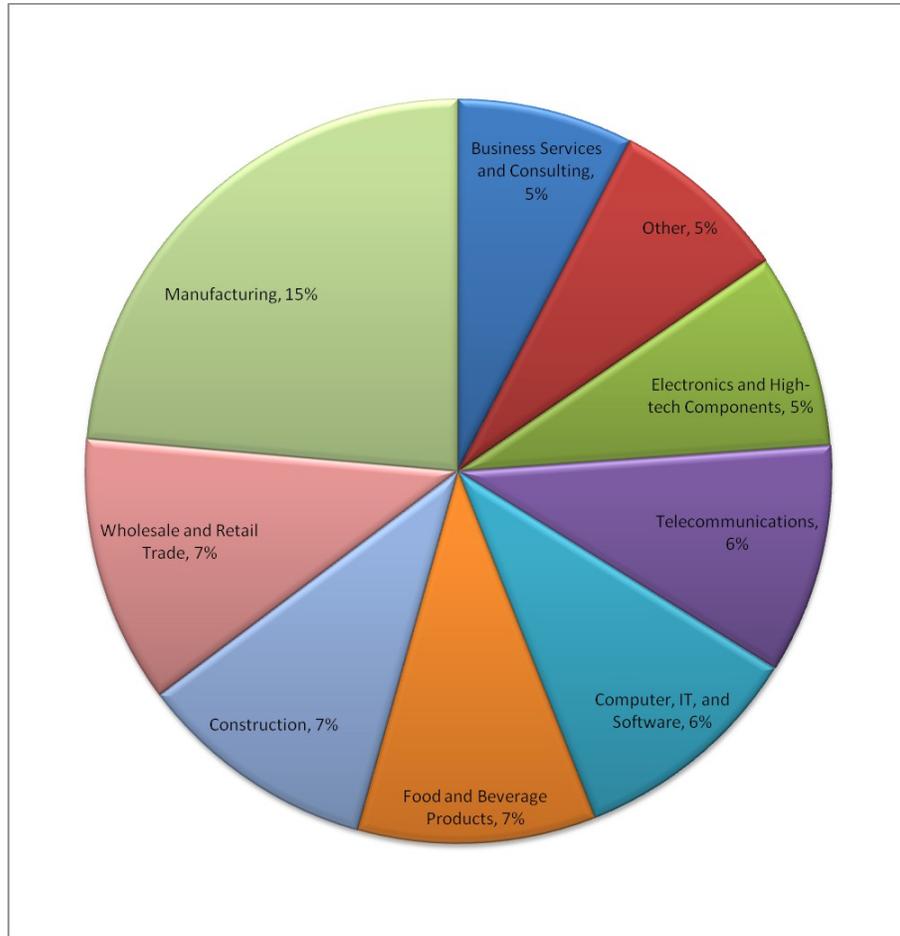


Figure 1

Of note, most FSM software vendors serve the following industries: telecommunications; utilities; aerospace and defense; automotive; construction; high-tech; computer, IT, and software; manufacturing; mining; oil and gas; wholesale and retail trade; professional services; transportation; insurance; and government and public sector—many of which are indicted in the graph above.

Interest in FSM adoption by company size: number of employees and annual revenue

TEC’s data shows that the types of organizations that are interested in incorporating FSM solutions within their corporate technological infrastructure are SMBs (with 1 to 50 employees and up to \$250 million [USD] in annual revenue) (see figures 2 and 3). Although most organizations seeking FSM software appear to be of small or medium size, large companies (with more than 10,000 employees and annual revenue more than \$1 billion [USD])—which are fewer in any economy—also showed interest in FSM software.

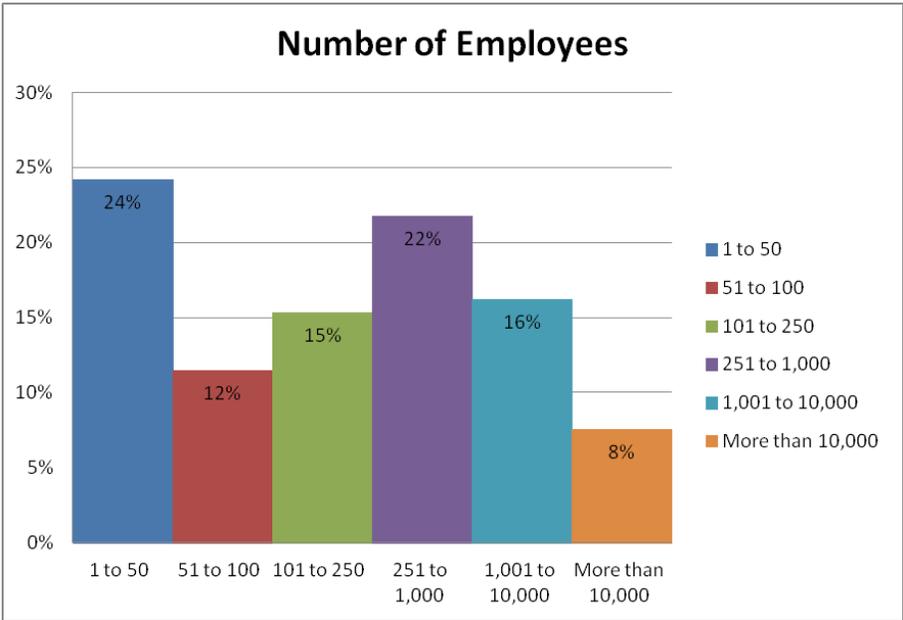


Figure 2

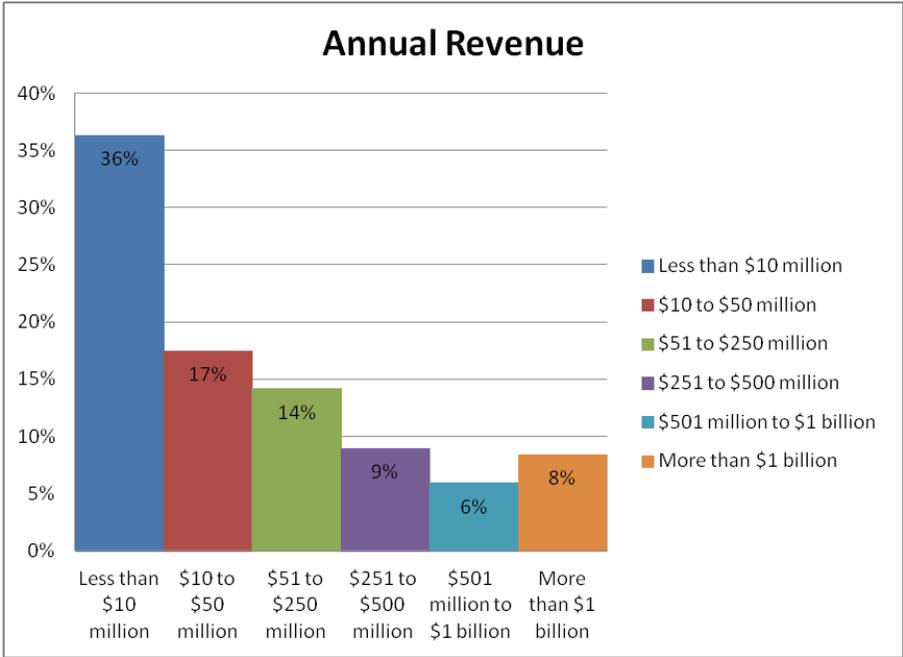


Figure 3

The graphs above demonstrates that regardless of size, companies—though they are aware that the FSM software market is relatively new—have FSM on their list of requirements, even if they may not have the budget to afford an FSM solution right away. Vendors may consider offering smaller versions of their solutions—

with fewer capabilities and using a cloud delivery model—to take advantage of and help meet the demands of SMBs.

Time frame for a decision and project start

TEC’s data unveils that a large number of businesses interested in FSM plan to adopt such solutions in the next 1 to 6 months (51%) (see figure 4). Of the total, 16% stated that they will be implementing an FSM offering in the next 7 to 12 months, and 12% said that will be implementing an FSM solution within a period of 1 year or longer.

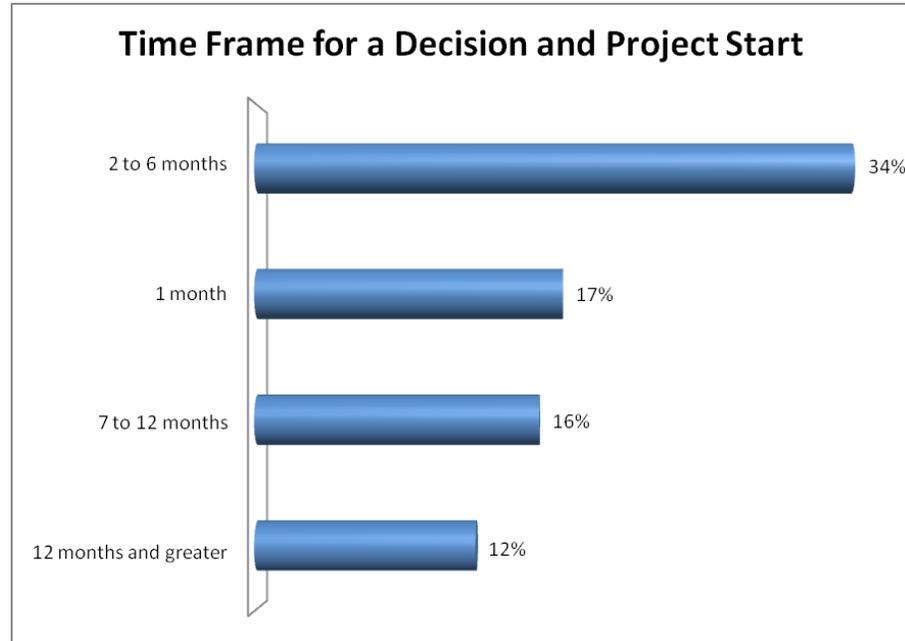


Figure 4

The large percentage of organizations that are currently in the process of acquiring and implementing an FSM solution demonstrates that the functionality offered by this type of software has been desperately needed by companies that include field service as part of their business. As underlined above, ERP, enterprise asset management (EAM), or CRM do not address specific requirements that are meant to manage field activities.

Vendor/Product Profiles

This section provides a short description of the main vendors in the FSM market space, highlights of their product offerings, and a list of some of their clients.

Astea International

Founded in 1979, Astea is a publicly traded company with offices in North America, Europe, Asia, and the Middle East. Astea’s FSM solution integrates

functionality for call centers, depots, field activity, sales, and office personnel in the same suite. It can deal with dynamic schedules that take into account unexpected events such as sick days, delays, high-priority calls, etc. Astea's solution is utilized in banking controls and instrumentation, fire and security, gaming and leisure, heating, ventilation, and air conditioning (HVAC), imaging, information, technology, manufacturing, medical devices, retail, and telecommunications. The solution can be delivered both in the cloud and on premises.

Product highlights

360-Degree View of Business is a BI tool that visually displays real-time analysis of business performance, including KPIs, as well as insights into customers' behavior. The tool unveils the performance against SLAs, contract profitability, product failure rate, repair turnaround times, customer satisfaction, and engineer efficiency.

Organizations can manage their service commitments with Astea's Web-based **Project Management** tool. The service cycle can be organized from contact center, help desk, customer self-service, to demand for materials and field activity. Employees can receive tasks, access documentation, collaborate, and report job status, time, and expenses. The main abilities of the application support the planning, deploying, and billing of service contract and requests regardless of their length (days, weeks, months, and years).

Customers

- Brains II
- Fujifilm North America
- Heartland Business Systems
- Samsung Electronics
- Winterhalter

ClickSoftware

Headquartered in Israel, ClickSoftware is a 500-employee, publicly traded company with offices North America, Eastern Europe, Middle East, and Africa (EMEA), and Asia Pacific (APAC). ClickSoftware's FSM solutions include functionality that supports forecasting and planning, scheduling, mobility, and business analytics. Their optimization capability covers customer demand forecasts, employee shift planning, mobile workforce management, and routing. ClickSoftware serves call centers and contact centers, capital equipment, communications, computer and office equipment, home services, insurance, oil and gas, public safety and security, rail, retail, and utilities. The solution can be delivered both on premises and in the cloud.

Product highlights

ClickForecast facilitates the forecasting of field service demand, thus allowing for the accurate planning of both workforce planning and shift planning. The application can manage any combination of territories and job. In addition, it employs historical analysis to better predict high demand periods. Users can input their own what-if scenarios to view the effects that certain presumed events may have on an overall field service activity.

ClickSchedule supports service teams in their efforts to maintain a reasonable schedule in place. It considers all factors involved in scheduling resources: customers, technicians, equipment, etc. The application supports planning processes such as resource capacity planning and/or shift planning, and it optimizes the schedule on ongoing bases to ensure an efficient resource and expertise allocation.

Customers

- Bell Canada
- Caterpillar
- Liberty Mutual
- New York City Fire Department
- Xerox
- Pacific Gas and Electric Company
- Best Buy

Comarch

Comarch is a public company established in 1993 with headquarters in Krakow, Poland. The company has 3,500 employees worldwide and provides services in Europe, North America, Latin America, the Middle East, and Asia. Comarch Field Service Management supports mobile workforce management, orders and tasks management, automated scheduling, resource management, partner management, spare parts management, as well as reporting. The solution is able to collect employee data by monitoring employees' activities and then use this data toward optimal HR allocation. Comarch delivers its solution to the following industries: telecommunications, utilities, home services, health care, engineering companies, office IT, capital equipment, dispatching centers, and public sector. The solution is delivered both on premises and in the cloud.

Product highlights

Mobile Access system module allows for online access to the system while on the go. Functionalities of FSM Mobile support all technician activities in the field, starting from information about the task, through navigation to customer site, checklists to remote measurement, and completion reports. Optimized tools allows for online and off-line work mode. It removes any paper work and simplifies real-time management of service provider field staff.

Work Orders Auditing is a powerful tool for quality auditors, who are able to select orders and assess its quality during on-site audit visits. Auditors using mobile application may perform on-site quality checks, collecting all important information. The system helps them rank the quality of the executed task according to modifiable criteria taking into consideration both technical aspects and soft criteria as if technician was on time.

Customers

- Orange
- ViaSat
- IET
- Tesco

FieldOne

FieldOne was founded in 2001 and has offices in North America. Its field service solution—Sky—supports interactive scheduling with optimization capabilities, resource and route planning, work order management, mobile task management, and reporting. Sky routing module is an advanced automated resource (agents and equipment) routing engine providing: automated dispatch, optimized routes and real directions, skill-based team assignment, and workload balancing. FieldOne supports any industry with a field service component. The solution can be deployed both on premises and in the cloud.

Product highlights

Messaging module offers several channels (Interactive Voice Response [IVR], short messaging service [SMS], or e-mail) through which field workers can be reached for updates on their job status arrival time, completion of task, cost, etc.

Sky mobile app allows field workers to utilize a variety of tools: scheduling, inventory, customer data, alerts, and navigation. The app offers support for work order check-ins and -outs, service task updates, used materials and equipment tracking, schedule updates, photo-capture, barcode scanning, and multicurrency.

Customers

- Synagro Technologies
- Guardian Alarm
- DMS Health Technologies
- Pappas Restaurants
- Scientific Fire Prevention

IFS

IFS offers software to manage teams of mobile technicians, including customer relationship management (CRM), mobile service, parts management, contract management, scheduling and maintenance repair and overhaul (MRO).

Whether to manage a field service workforce handling high volumes of calls each day or technicians on longstanding and complex repair, refit or overhaul engagements, IFS has software to facilitate businesses. IFS supports its more than 2,000 customers and 800,000+ users from offices in more than 50 countries. IFS, a public company was founded in 1983. IFS offers a single, consistent product line to satisfy needs for everything from repetitive, high-volume service management to heavy maintenance repair and overhaul. IFS products can be implemented as best-of-breed solutions or can serve as the enterprise application across a mid-sized-to-large enterprise.

Product highlights

IFS Metrix Service Management is recognized by analysts and the market alike as the best-of-breed software application of choice for companies managing a field service workforce. It includes everything service organizations of all sizes need to profitably serve customers and is available on-premise or in the cloud. Standard functionality covers the entire field service life cycle from customer relationship management, scheduling, and mobile service, to contract pricing, warranty repair and parts management. Available extensions include schedule optimization for large field service workforces and enterprise functionality from IFS Applications including maintenance repair and overhaul (MRO).

IFS 360 Scheduling is one of the only field services scheduling and planning products that can optimize a schedule for hundreds or even thousands of field service technicians in real time. IFS' scheduling products, deployable on premises or in the cloud, are built for mission-critical situations where rapid and accurate decision making are paramount. Complex environments with large numbers of technicians, multiple jobs per day, and constantly shifting priorities make real-time schedule optimization vital.

Customers

- Motorola
- Ericsson
- Auto Windscreens
- Hobart
- Mitutoyo
- Source Refrigeration
- TH Hill

MSI Data

Founded in 1989, MSI Data is a company based in Wisconsin, United States. Its field service suite—Service Pro—includes call center, dispatch, contracts management and spare parts inventory, scheduling optimization and routing, and mobile workforce management. The scheduling optimization functionality is able to auto sort by required technician skill set, displays the service technician's work status in a single view, and it transmits any updates to field workers' devices.

MSI Data delivers its solution to the following industries: cable, manufacturing, distribution, government, health care and medical equipment, and construction. The solution can be deployed both on premises and in the cloud.

Product highlights

Mobile field inspection replaces the paper-based inspection processes with digital inspection forms, which can be standardized across devices (iPhone, iPad, Android, Windows mobile tablet, or smartphone). In addition, field workers can capture condition photos and customer signature.

TomTom WEBFLEET integration with Service Pro ensures that Service Pro users have access to fleet management data such as vehicle locations and travel times. This new capability (launched in January 2013) is meant to better approximate estimated time of arrival (ETA), as well as automate customer service notifications. In addition, technicians can receive real-time directions and work orders via heads-up display.

Customers

- Total Energy Systems
- City of Milwaukee's

Oracle Siebel

Oracle acquired Siebel CRM Systems Inc. in 2005. Oracle Siebel provides functionality for CRM, FSM, partner relationship management, e-commerce, and contact center. Its FSM application covers scheduling and dispatching, contract management, mobile field service, parts and logistics, and asset management. Siebel can optimize schedules based on business rules and workflows, which incorporate contract agreements, SLAs, and warranties. The product supports service management in the following industries: high-tech, utilities, manufacturing, and telecommunications. The solution is delivered on premises and in the cloud.

Product highlights

Optimized logistics management sustains automated field service operations by utilizing inventory information. The application includes a fulfillment engine that allocates parts for each work order and it generates pick tickets (from inventory). The solution also includes a replenishment engine that automatically places

orders for missing parts.

Siebel field service analytics offers prebuilt and ad hoc reports that can be personalized per user role. Interactive dashboards display field service metrics—resolution times, product failure rate, warranty expiration trends, technician productivity rate, etc.—or KPIs.

Note: In addition to Oracle Siebel, Oracle offers another FSM solution—Oracle E-Business Suite Field Service. The solution supports service management from customer request to billing. The system automates the scheduling and dispatching of the most suitable technician, the right parts, and other resources as required by each job.

Customers

- Komori America
- Technology Integration Group
- Intelligrated
- Staples Brazil
- Zanett Commercial Solutions
- Avery Berkel

PTC

PTC acquired Servigistics, Inc. in October 2012. The company is headquartered in Needham, Massachusetts, with offices around the world including the United Kingdom, China, Japan, and India. The FSM solution provides end-to-end capabilities with mobility for planned and reactive service scheduling and dispatch. The solution integrates with PTC's Service Lifecycle Management solutions to coordinate necessary resources which include service parts management and pricing, service knowledge and technical information, service network, service depot and warranty, and contract management. Its scheduling application ensures that available field workers with the right skill set as well as the appropriate part are delivered to customers at the right time and in compliance with SLAs. The company delivers its field service solution to global capital goods manufacturers, service providers, and equipment operators. The solution can be deployed both on premise and as a hosted service.

Product highlights

PTC Servigistics Service Command Center displays the real-time status of service calls, both planned and reactive. The tool has the ability to balance an SLA with the available technicians and service part options. In addition, it proactively identifies service pipeline bottlenecks and recommends resolutions. The tool allows for the definition of business rules, and it further generates live alerts based on these rules. For monitoring purposes, it includes KPIs and service metrics.

Organizations can optimize the quality of their service by considering root-cause analysis and trend analysis.

PTC Servigistics Service Knowledge software includes symptom-based queries that provide clues to technicians as to what is the best solution for a particular situation. It employs natural language processing, dynamic induction, and case-based reasoning to find the optimal solution for each case.

Customers

- EMC
- Coca-Cola Refreshments
- Cisco
- Thyssenkrupp Elevator

SAP Field Service

SAP offers an end-to-end service management solution that can be used across all the departments of a company to manage contracts, process issues, and execute service orders. SAP Field Service is part of SAP Service Management, which offers functionality for service order management, installed-base management, warranty and claim management, parts logistics integration, and mobility. Analytics and big data features are also delivered by SAP to extend its core field service offering. Workforce scheduling and optimization allows users to allocate resources and optimize planning based on factors such as skills, location, customer preferences, and service commitments (as defined by contracts and SLAs). Using optimized schedules and automated processes, dispatchers can decide the most suitable resources for each task. SAP delivers its field service solution particularly to the high-tech, utilities, and industrial manufacturing industries. The solution can be delivered both on premises and in the cloud.

Product Highlights

SAP HANA supports several functions of service management such as contract management, analytics, and big data.

SAP Field Service is **integrated with financials management**, which helps with timely and accurate billing, as well as cost and revenue optimization. In addition, the solution unveils a detailed 360-degree view of a service contract, including customized prices, bill plans, related orders, and SLAs.

SAP CRM Service Manager mobile app allows services companies to easily exchange data with their field technicians, as well as monitor their performance. As a result, technicians have better visibility into the information needed to perform their job, and decision makers have more information on what their technicians are doing. The mobile app helps technicians receive and update work orders, access data about equipment, customers, contracts, or service history,

record time and expenses, as well as problems and actions, or capture confirmation signatures from customers.

Customers

- Asian Paints
- Light Serviços de Eletricidade
- Mekorot
- Ergon Energy
- Water Corporation

ServiceMax

Headquartered in California, United States, and founded in 2007, ServiceMax also has offices in the United Kingdom and India. The ServiceMax field service suite covers contract entitlements, scheduling and workforce optimization, inventory and parts logistics, mobility, collaboration, and customer and partner portal access. Its scheduling and workforce optimization capability is able to unveil overall time and parts consumption, service history, root-cause and failure analysis, as well as to support automatic scheduling processes that consider technicians' skills, workload, and priorities. The company serves the following industries: high-tech manufacturing, life sciences and medical equipment, industrial manufacturing and equipment, communications equipment, utilities, and residential and commercial services. The solution is offered in the cloud and via the Salesforce AppExchange.

Product highlights

ServicePulse is an enterprise social network based on Salesforce Chatter that enables the collaboration of field workers among each other and with the rest of the organization. The platform includes features such as profiles, status updates, sharing, liking, commenting, following, groups, document sharing, and trending. Office-based employees can follow field cases as they unfold and become updated by field workers, as well as receive alerts about sensitive accounts that demand a high volume of work. The remote device-monitoring technology is able to reveal issues, and assign technicians to solve them.

ServiceMax Mobile for iPad, introduced in 2011, was the first complete field service application available on the iPad. With its touch-screen capabilities and portability, the app empowers technicians with information they need to fix issues the first time, provide the best possible service, and sell additional service. Field technicians can access customer and case history, installed product configurations, parts information, pricing, knowledge bases, and social collaboration via ServicePulse. These capabilities are accessible whether Internet connectivity is available or not, making the iPad a viable option even in low or no bandwidth environments.

Customers

- McKinley Equipment Corp.
- Litepoint
- Cutting Edge Laser Technologies
- Electrolux Brazil
- Pitney Bowes
- AdvantaClean
- Pacific Biosciences
- AVI-SPL

ServicePower

Formed in 1996, ServicePower is a company with offices in North America and Europe. ServicePower's suite of field service solutions includes work order management, scheduling and third-party dispatch, parts and inventory management, warranty claim processing and payments, and mobile field activity management. The ServiceScheduling optimization functionality employs an artificial intelligence-based algorithm that allows organizations to allocate jobs to the appropriate technician and create optimized routes. ServicePower can deliver its offering to any industry, including the following: appliances and consumer electronics, insurance and extended warranty, HVAC, charity, food service, alarms and security, retail, and utilities. The solution can be deployed both on premises and in the cloud.

Product highlights

ServiceStats for Scheduling provides the capability to house and maintain historical scheduling data over time. This valuable information can be analyzed through a light weight, Web-based interface to drive strategic forecasting as well as operational decisions and tactical improvements in the business. ServiceStats for Scheduling provides out-of-the-box trend and detailed analysis. In addition, **ServiceStats for Operations** is a thin-client, in-memory, Web-based business intelligence application that provides reporting and analysis to clients for ServiceDispatch and ServiceClaims.

ServiceBroker provides a singular integration point through which clients may mix all resource pools, including employed, contracted, on-demand and externally managed networks to achieve cost, cycle time, margin, and satisfaction requirement.

Customers

- GE Appliances
- Bosch
- Yamaha
- Farmers Insurance
- AIG

- Assurant Solutions
- Liberty Mutual
- Baxi Heating and Planning
- RSPCA
- EON

TOA Technologies

Founded in 2003, TOA Technologies is a privately owned company with offices in North America, Latin America, Europe, and Australia. Its field service solution offering, ETAdirect, includes intelligent routing, mobile field activity management, collaboration, and customer communication. Its time-based routing—designed for scheduling purposes—is able to continuously adjust schedules based on business rules, a large number of what-if scenarios for routes, and employee skills and performance. TOA Technologies offers its field service product to the following industries: cable and telecommunications, home healthcare service, home and business services, retail, and utilities. The solution is delivered in the cloud.

Product highlights

Time-based routing employs a genetic algorithm that generates optimized schedules by measuring the door-to-door travel time for mobile employees and compiling a historical database for each individual. The solution is programmed to learn travel times and working times through experience in real time. In so doing, it accumulates a series of details about routes, workers' habits, etc. When historical data lacks, for new employees, for example, the solution utilizes a preloaded database of the best routes between specific areas within a certain urban or suburban environment.

Customer communication is supported by built-in, configurable automated messaging capabilities including SMS, e-mail, and IVR. Customers can confirm, cancel, or reschedule appointments, as well as evaluate the level of service received, as surveys can be set up to launch after each appointment. In addition, business rules can be added to ensure proper communication with the customer. For example, calls can be automatically launched at set intervals and if the client does not pick up, a text message can follow.

Customers

- Arhaus Furniture
- Telefónica
- Vidéotron
- Cox Communications
- ONO
- Virgin Media

Vertical Solutions

Founded in 1986, Vertical Solutions, Inc. is a company based in Cincinnati, Ohio. Its FSM solution, VServiceManagement, is an end-to-end field service management solution that integrates with existing back-office systems (ERP) while seamlessly managing from service request creation to completion. Offered in either a traditional on-premise (or Private Cloud) model or a software-as-a-service model (SaaS/Public Cloud), VServiceManagement manages the service lifecycle. Its scheduling optimization capability takes advantage of mathematical algorithms to schedule jobs based on technician skills, SLAs, travel times, traffic delays, shift patterns, etc. The solution is tailored for the following industries: software, medical equipment, capital equipment, industrial machinery and equipment, business process outsourcing provider, insurance, electronics, third-party service providers, residential and home services, HVAC, telecommunications, warranty support centers, business-to-consumer services, aviation, business machines, and health care.

Product highlights

Business process management provides a simple and intuitive drag-and-drop interface that gives business users a visual tool to design, test, implement, and document their business processes simultaneously. The tool integrates with external databases and third-party systems, ensuring that relevant data about tasks or cases, for example, can be integrated into workflows. Base workflows can serve as templates for different customers or business units—allowing the base workflow to be copied and modified to meet the specific need.

Contract and warranty management provides the ability to manage the full life cycle of contracts from application of sales warranty through initial contract proposal (including multiple pricing options) through activation and retirement. Supports asset-based and product class-based contracts in addition to multiple draw-down types and integrated multitiered warranty management.

Customers

- Medxcel- Global Division of Ascension Health
- ABB, Inc.
- John Moore Services
- ACCO Brands
- RSystems

About Technology Evaluation Centers

Technology Evaluation Centers (TEC) provides insight and expertise in offering impartial resources and services to minimize the costs, risks, and time associated with software selection. Over 3.5 million technology decision makers visit TEC's Web sites each month, to find information on hundreds of solutions, and to access articles, white papers, and podcasts.

TEC's decision support system (DSS) and analyst data assist with the evaluation, comparison, and selection of enterprise solutions and services. TEC's offerings include in-depth research, detailed product information, and software selection services for any industry or company size.

Technology Evaluation Centers Inc.

740 St. Maurice, 4th Floor
Montreal, Quebec
Canada, H3C 1L5

Phone: +1 514-954-3665

Toll-free: 1-800-496-1303

Fax: +1 514-954-9739

E-mail: asktheexperts@technologyevaluation.com

Web site: www.technologyevaluation.com

TEC, TEC Advisor, and ERGO are trademarks of Technology Evaluation Centers Inc.

All other company and product names may be trademarks of their respective owners.

© Technology Evaluation Centers Inc. All rights reserved.

FSMMLR20130521

