THE IMPORTANCE AND BENEFITS OF AUTOMATIC TECHNICIAN SCHEDULING IN FIELD SERVICE OPERATIONS

KEY QUESTIONS:

1

What are the challenges of field service technician scheduling today?

2

What should you expect of a field service management solution provider?

3

What are the business and operational benefits of dynamic scheduling

IFS WHITE PAPER
By Tom DeVroy, Senior Product Evangelist, IFS

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BY TOM DEVROY, SENIOR PRODUCT EVANGELIST, IFS

Deciding which technicians to assign to service orders, and when to schedule and dispatch them can be a complicated process. Consider these multiple influencing factors:

- Which technicians have the training, skills, certifications, or even security clearances required to work on the equipment requiring service?

- Which of these technicians are nearest to the location where service is to be performed?

- What are the technicians' schedules? Which days, hours, shifts do they work? Are they on vacation, holiday, sick leave, in training, at meetings, etc.?

- Is the equipment requiring service covered by a service contract, a warranty, or is the service billable on time & material basis?

- What contractual response time, repair time, resolution time, or other service level agreement (SLA) commitments were made to the customer?

- Which technicians will be free from other work and available to meet—or beat—those SLA commitments?

- What is priority or urgency of the service request?

- Is the equipment down and inoperable?

- Is the customer requesting service a high value customer or critical account?

- What is the most direct and cost-effective route the technician should take to the service location?

- Does the technician have the part(s) and tools they may need to service the equipment? If not, what is the nearest location where they can be obtained?

- Are there any dependencies, multiple tasks being performed in sequence, or perhaps a two-person job?

And that's not all! Service demands and schedules are incredibly dynamic and constantly changing throughout the day:

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- New high-priority service requests come in.

- Service requests get upgraded from low or medium priority to high and urgent priority. Occasionally they are cancelled.

- Technicians encounter complexities with earlier service calls and are unable to finish them in the originally anticipated time. They get stuck in traffic, have personal emergencies arise, take suddenly ill, or may become unavailable for other unforeseen reasons.

- Customers need to change service appointment times.

- And more.

Given enough time and money you can manage anything. In the not too distant past, experienced and knowledgeable dispatchers could do a reasonable job with a limited set of tools. Of course, this required manual processes, and lots of telephone calls. It was not very efficient, and the ratio of dispatchers to technicians was often excessive. Indeed, many service organizations today still use magnetic boards, white boards, or some other manual process to keep track of service calls and technician assignments. But times have changed. Customers are more demanding of service delivery, and service company executives are pushing for greater service productivity, increased customer satisfaction, lower service costs, higher service revenue, and more service profitability.

While the manual processes of the past may still be suitable for small service organizations with relatively few field service technicians, they are no longer accept¬able for organizations with dozens, hundreds, thousands, or even tens of thousands of technicians. Service competition, customer demands and expectations, and executive vision require a more automated, dynamic, real-time and scientific approach to scheduling field service staff.

THE SOLUTION

Fortunately, software has evolved in recent years to allow for fully automatic and dynamic field service scheduling capabilities. Today's software technology provides a wide range of features that optimize and update field service technician schedules automatically and in real time as service conditions and requirements change.

Field service organizations evaluating an automatic field service technician scheduling solution should determine if the solution includes the capacity to:

- Assign and dispatch technicians to service orders based on their expected availability, skills and certifications and proximity to the service location.

- Consider customer status, service order priority and equipment failure mode.

- Recognize customer service level agreement commitments, service contract, warranty and other entitlements.

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- Determine the availability and location of anticipated parts requirements.

- Automatically and immediately revise schedules based new service requests, revisions or updates to existing service requests and/or changes in technician availability.

- Allow dispatchers and/or management to override automatically generated assignments and schedules when they deem it appropriate to do so.
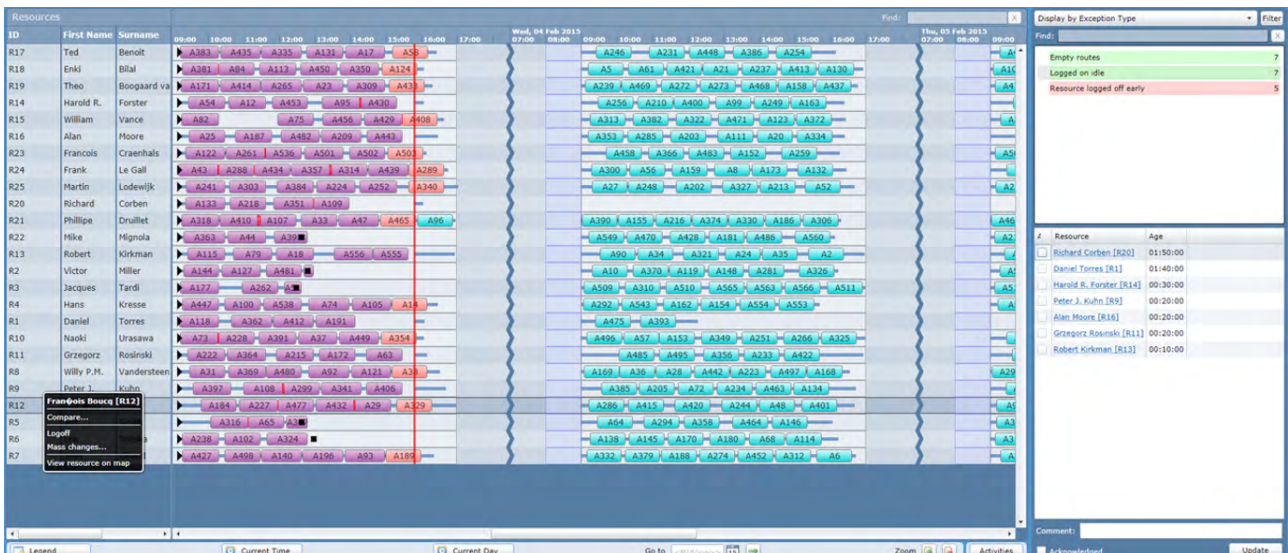
In addition, a complete Intelligent Scheduling Engine should allow service staff to display the location of customer service calls, technicians and service parts on an interactive map based on GPS coordinates. Using this GPS coordinate information, the solution should also be able to recommend and display the most direct and cost-effective route technicians should take from their current location to their next assigned service call.
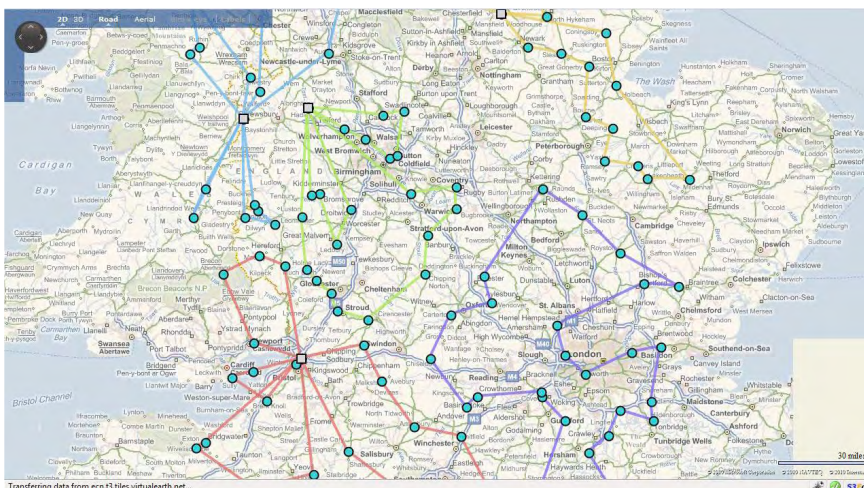
It's essential that the scheduling solution be able to accommodate appointment time requests, automatically schedule and route technicians to arrive within the specified time, and notify the customers via email, text, or phone when the technician is en-route or about to arrive.

Customers are increasingly demanding the ability to specify appointment times for service calls and their requested time windows are becoming more and more narrow. "Morning" or "afternoon" appointment times are progressively less acceptable. Customers want two-hour appointment time windows, or a one-hour window, sometimes even less. And they want to be notified when the technician is on the way. It's essential that the scheduling solution be able to accommodate appointment time requests, automatically schedule and route technicians to arrive within the specified time, and notify the customers via email, text, or phone when the technician is en-route or about to arrive.

There are three types of approaches to scheduling: **static, episodic**, and **dynamic**.

BENEFITS OF DYNAMIC SCHEDULING

There are three types of approaches to scheduling: static, episodic, and dynamic. A static schedule is generated, usually a day in advance, and generally will not take into account any in-day changes. This is popular when route distribution, last-mile delivery, and simple route planning are the main goal of a schedule. In field service, this type of schedule is not satisfactory because of the frequent changes during the day and all subsequent appointments that could be affected. Not only changes to travel, and personal emergencies, but extended duration, unexpected repair delays, part requirements and so forth—unless technicians generally only handle one or perhaps two jobs per day. To accommodate the in-day changes, some scheduling engines use episodic scheduling. In other words, they commit a certain number of jobs, and then throughout the day perhaps at noon, will reload and update the afternoon schedule. For some businesses this may be satisfactory, and IFS certainly can accommodate this model. Because of the dynamic nature of service delivery an ideal scheduling capability would be to drip-feed a schedule and accommodate in-day changes as they occur. This dynamic scheduling requirement is difficult to accommodate, but something that IFS has perfected.

The implementation and use of a dynamic scheduling engine will return numerous advantages and benefits.

- The number of dispatchers needed to successfully manage assignments and dispatch technicians will be reduced. Dispatchers can be freed from routine tasks to focus on and manage exceptions.

- Decentralized service offices with individual dispatch teams can be consolidated into fewer—or even single—offices, reducing headcount and overhead costs.

- Technician utilization rates and productivity will be significantly improved, as the scheduling engine optimizes their daily service activities, travel times, and routes to service calls.

- Fuel costs and environmental impact are trimmed through more effective routing of technicians to jobs.

- First-time fix rates will rise as properly skilled technicians are assigned and dispatched to service calls.

- Customer loyalty and satisfaction rates will improve as appointments and SLA commitments are met or exceeded.

- Greater customer loyalty will boost competitive advantage and positioning.

- Service profitability will grow as technician productivity improves and more service calls are completed each day.

Following are a few examples of the actual benefits some small, mid-size and large companies have realized after implementing a dynamic scheduling engine:

SUMMARY

The potential benefits of deploying a dynamic scheduling engine for field service operations are too great to disregard. All field service organizations with more than a handful of technicians in a tight geography should consider implementing such a solution.

IFS Field Service Management™ is a fully integrated service management system, enhanced with mobility and a dynamic scheduling engine that provides all the capabilities and benefits described above. It was designed exclusively from the ground up for field service. It offers:

- Thorough and robust service functionality

- Easy user configuration and customization

- Multiple remote access capabilities

- Sophisticated analytics and reporting

The solution is backed by an organization and staff that have implemented and supported the software at hundreds of service organizations in a variety of industries for nearly 30 years.

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ABOUT IFS

IFS develops and delivers enterprise software for customers around the world who manufacture and distribute goods, maintain assets, and manage service-focused operations. The industry expertise of our people and solutions, together with commitment to our customers, has made us a recognized leader and the most recommended supplier in our sector. Our team of 3,500 employees supports more than 10,000 customers world-wide from a network of local offices and through our growing ecosystem of partners.

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AMERICAS..**+1 888 437 4968**
ARGENTINA, BRAZIL, CANADA, ECUADOR, MEXICO, UNITED STATES

ASIA PACIFIC .... **+65 63 33 33 00**
AUSTRALIA, INDONESIA, JAPAN, MALAYSIA, NEW ZEALAND, PHILIPPINES, PR CHINA, SINGAPORE, THAILAND

EUROPE EAST AND CENTRAL ASIA ....**+48 22 577 45 00**
BALKANS, CZECH REPUBLIC, GEORGIA, HUNGARY, ISRAEL, KAZAKHSTAN, POLAND, RUSSIA AND CIS, SLOVAKIA, TURKEY, UKRAINE

EUROPE CENTRAL...**+49 9131 77 340**
AUSTRIA, BELGIUM, GERMANY, ITALY, NETHERLANDS, SWITZERLAND

EUROPE WEST ....**+44 1494 428 900**
FRANCE, IRELAND, PORTUGAL, SPAIN, UNITED KINGDOM

MIDDLE EAST AND AFRICA.......................................**+971 4390 0888**
INDIA, SOUTH AFRICA, SRI LANKA, UNITED ARAB EMIRATES

SCANDINAVIA..**+46 13 460 4000**
DENMARK, NORWAY, SWEDEN

FINLAND AND THE BALTIC AREA..................................**+358 102 17 9300**
ESTONIA, FINLAND, LATVIA, LITHUANIA

IFSworld.com