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Achieving Service Excellence in the Medical Industry

Executive Summary

The purpose of this white paper is to provide an efficient service cycle for servicing, repairing and maintaining medical devices. It will help manufacturers of medical equipment go through the ideal service process and see where a field service solution can make a difference to service efficiency and customer satisfaction. Apart from tips and valuable data, this paper will demonstrate how Ink IT Solutions Field Service Software can particularly help the medical industry reach service excellence and exceed customers' expectations.

Introduction: Servicing Medical Equipment in the Digital Age

Over the past few years, technology has changed at a rapid pace, affecting every part of our daily lives, including our health. We use social media to find medical practices, and choose doctors based on their online ratings. We wear watches and wristbands that monitor our heartbeats and our steps. We use smartphone apps to diagnose infections and diseases.
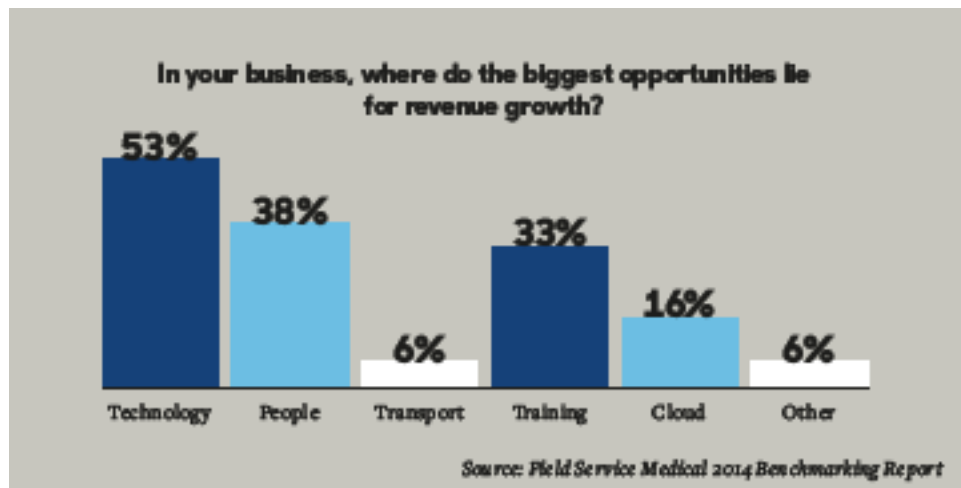
As modern medicine advances, technology is being used to help prolong the lives of millions of people around the world. However, many medical device companies are struggling to keep up with technological changes and the problems that arise along with them; problems such as efficiently maintaining older equipment as purchases of newer medical devices are in decline.

Field service automation is the solution for helping workers in the medical industry pick up the pace in today's technology-based world.

With equipment such as 3D printers and complex imaging machines used to treat patients both in the hospital and remotely, there has never been a time with a greater need to ensure that medical devices are working at their best.

This white paper explains how field service automation software can help servicing medical equipment more efficiently thereby unlocking new revenue streams and making customers happy.

53%

said their biggest opportunities for revenue growth lie in

TECHNOLOGY

In your business, where do the biggest opportunities lie for revenue growth?

53% Technology
38% People
6% Transport
33% Training
16% Cloud
6% Other

Source: Field Service Medical 2014 Benchmarking Report

Industry Drivers in the Medical Sector

Back in the early 1900s, the most complex devices doctors and surgeons had to use were X-ray and electrocardiography machines. They were basic, but they got the job done. In the latest season of the TV show, Grey's Anatomy, surgeons used a 3D printer to print a new heart valve for a patient and built brainwave-controlled robotic limbs for an amputee war veteran. This type of technology isn't mere science fiction. It's real.

Medical practitioners and hospitals purchase all kinds of technical machines to diagnose and treat any health problems that may arise. Repairing or maintaining such medical devices poses a set of challenges that can be addressed using field service automation software.

Adhering to FDA Regulations

For the safety of patients, all medical devices must adhere to FDA regulations[1]. These guidelines cover everything from design to manufacturing to the surveillance and maintenance of a medical device once installed. When the government announces new regulations, distributors of medical devices will also need to be agile enough to incorporate them quickly into their service processes.

Increased Competition For Producers and Distributors of Medical Devices

If you're an iPhone owner, you know what it's like to decide whether you want to upgrade to the new and improved iPhone every year or watch your phone become virtually worthless with each passing year.

Although medical technology is a growing industry, the medical device industry could lose $34 billion[2] over the next five years as healthcare shifts to mobile treatment outside of the hospital. Many health practitioners have shifted their focus to improving and fixing existing devices, rather than buying newer, more innovative ones. This has caused decreasing margins and a high level of competition among medical technology companies, that have a hard time making their products standout. Service will be a decisive factor for medical device companies to stay profitable in the future.

Downtime For Medical Machines Means Lives Are At Stake

In other industries, something like a broken copy machine might ruin a day. In the medical industry, a broken imaging machine could ruin a life. Malfunctioning medical equipment and downtime may cause not only financial losses, but have serious, even fatal consequences. Companies that service medical devices must be able to dispatch the correct technicians fast. These technicians must also have all the right parts and equipment on hand, so they can service machines quickly and efficiently.

Outlook for 2015: What are the biggest challenges you face? (Asked of President/CEO/COO/Managing Directors only, all company sizes) Percentage of respondents (n = 636)

Source: Global Medical Device Industry Outlook for 2015, Emergo 2015

1: http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/ucm134499.htm

2: http://www.beckershospitalreview.com/healthcare-information-technology/medical-device-industry-could-lose-34b-over-next-5-years-5-reasons-why.html

Efficient Field Service Chain

Delivering proactive and efficient service is vital for medical device companies to stay profitable and unlock new revenue. Technological innovations like field service software can help medical equipment manufacturers improve the whole service process of collecting and analyzing data, managing spare parts, put together comprehensive reports and speed up the process of invoicing. In the following section, we will go through the process of servicing medical devices, providing tips for an improved workflow and showing how field service software can help you.

Facts

"Price", "existing relationship with supplier" and "level of service" are considered the most important factors for supplier selection in the global medical devices industry.

Source: ICD Research

Product Purchase

As purchases of medical equipment are in decline and customers want to use their medical machines for as long as possible, profitable service agreements will be important to be ahead of competition. These agreements will more and more depend on uptime, which increases the pressure on medical device companies to speed up problem resolution in cases of downtime.

In order to be able to provide customers the service they need, it is necessary to build up your database from the moment a customer purchases a medical device.

Make sure that upon product purchase you:

– Collect all relevant information on the customer, the medical equipment, and installation of the medical device as well as any kind of add-ons.

– Make this information available to your customer, service field staff and back office through a cloud-based system to be accessed anytime and from anywhere.

– Record all warranty and entitlements for the equipment, along with expiration dates and maintenance schedules. Maintenance schedules can be set with alerts to flag contracts that are expiring, or routine servicing that needs to be scheduled.

**CT Scanner Downtime
Costs Per Day**

$ 5,972

Source: Becker's Hospital Review

**What are your top
two areas of focus
for 2014?**

Improve customer
satisfaction

65%

Improve service
profitability

16%

Cut service related costs

8%

Increase technician
utilisation

9%

Performance management

19%

New service offering
development

14%

Global expansion of service
business

18%

Automating technician
workflow

8%

Grow top line revenue

19%

Other

3%

*Source: Field Service Medical
2014 Benchmarking Report*

Service Request

Resolving a service issue or broken medical device the first time is extremely important in the medical industry. Downtime could mean losses in life, productivity, and profits.

Efficient field service management starts with incoming service calls that need to be captured and prioritized. You need to ensure that the right information is recorded in your field service solution. The customer and equipment history should show you all relevant information to be able to qualify the service call.

Use a field service solution to capture and qualify incoming service calls:

– Record service requests using sensors installed in the medical equipment and integrated into your service system (machine-to-machine).

– Ensure that service requests made by phone or email are captured with detailed information including contact person.

– Perform a triage of the issue, and assign a priority level to calls to properly route them.

– Categorize or tag customer issues, as well as the specific complaints about the medical device to feed future analysis.

– Should the customer phone in, call centers or customer service should have the complete history of both the customer and the piece of machinery that needs servicing.

Preventative Maintenance

According to the Field Service Medical 2014 Benchmarking Report conducted by WBR Digital, 65% of the executives at medical device manufacturers made customer satisfaction their number one focus in 2014.

Identifying the next maintenance due date of medical equipment represents the kind of proactive strategy every customer will appreciate. Using data entered by field service technicians on site and combining it with data such as hours of peak performance and uptime will help you prevent repairs and breakdowns. If done right, preventative maintenance programs considerably reduce service calls. This, again, will save you and your customer money and increase customer satisfaction.

Get ready to predict when the next maintenance of the medical device is due:

– Ensure that data in your field service solution is correctly captured and classified.

– When servicing medical equipment, make sure you document data in a structured way using checklists, tables, or dropdown menus. This facilitates later analysis and feedback to your preventative maintenance plan.

– Consider carefully the KPIs and other data points and metrics you will need to align with your business goals. Do you have the flexibility in your field service software to capture and add KPIs tailored to your company?

– Enlist your business analytics team to construct sophisticated reports based on the KPIs to indicate what is being done well and what needs to be improved.
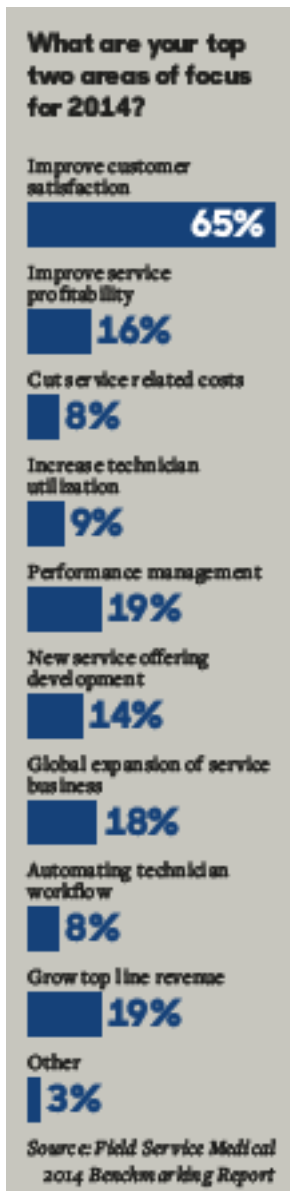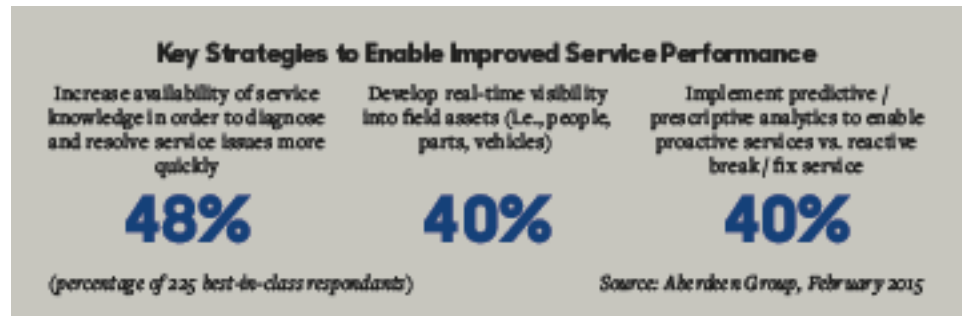
Work Order Creation, Planning And Dispatch

In an ideal world, you wouldn't dispatch a technician who does not have the skills or qualifications to service medical machinery. With field service software, dispatchers have a full picture of technicians' skills, certificates and availabilities. As servicing medical devices must follow regulatory protocols, project managers need to be able to plan maintenance jobs properly. They need to be able to break down a service job in different tasks and subtasks and create checklists for field service engineers. Making them available on mobile devices will smooth the whole service process.

Field service software will allow you to plan your project:

– Plan your project by adding timings. Break down service jobs in tasks when necessary and assign them to the service technicians with the appropriate qualifications to service medical devices.

– Provide dispatchers with the necessary information on field workers' locations, whether they have the entitlements to service the medical equipment and what parts they have with them.

– Dispatch the right techs quickly through drag and drop. Field service engineers will get instant notifications as soon as they are assigned to a new job.

Key Strategies to Enable Improved Service Performance

Increase availability of service knowledge in order to diagnose and resolve service issues more quickly	Develop real-time visibility into field assets (i.e., people, parts, vehicles)	Implement predictive / prescriptive analytics to enable proactive services vs. reactive break / fix service
48%	**40%**	**40%**

(percentage of 225 best-in-class respondents) Source: Aberdeen Group, February 2015
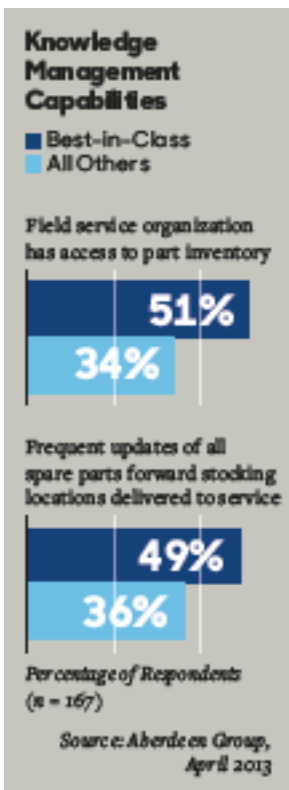
Repair

Fixing a medical device right the first time is not simply a nice idea, customers are expecting it. In order to make customers happy, you need to empower your field service staff with real-time information. Social collaboration in field service is key to increase first-time fix rates, so make sure communication between technicians or different teams and the back-office is smooth.

More so than in any other industry, field service technicians in the medical sector must ensure that their work is standardized to help keep medical devices safe and approved by government regulations. Field service automation allows technicians to complete standardized checklists thereby entering specific data values, taking pictures, and describing the problem.

To increase your first-time fix rates use field service automation to:

– Ensure that your field service software works both online and offline to let engineers sync their work and update records.

– Structure tasks or assignments through checklists or dynamic forms. These tools can guide the engineers through pre-defined scenarios, in which all the required actions – data inputs like measurements, recommendations, photos and other attachments – are recorded in a structured manner.

– Use tables or forms to capture detailed data to eliminate errors and provide clean data to analyze the breakdown.

– Ensure real-time communication between field service staff through individual or group checkouts.

– Ensure that field service staff has a direct line to the back office in case they need to ask for advice.

Social collaboration is on the corporate agenda:

77%

of business and IT leaders say their companies are currently using social collaboration technologies.

82%

of businesses currently using social collaboration tools want to use more of them in the future.

Source: Avanade, Global Survey, 2013

Knowledge Management Capabilities

■ Best-in-Class
■ All Others

Field service organization has access to part inventory

51%
34%

Frequent updates of all spare parts forward stocking locations delivered to service

49%
36%

Percentage of Respondents (n = 167)

Source: Aberdeen Group, April 2013

Inventory And Equipment Management

Effectively managing an inventory supply chain is at the heart of a successful field service offering. After all you don't want to have a warehouse full of equipment or not enough spare parts to complete service calls the first time.

With remote sensors becoming cheaper, automating your inventory management is a great way to stay profitable. Visibility into stock levels and availability dates can improve first-time fix rates, and ensure technicians don't waste their time.

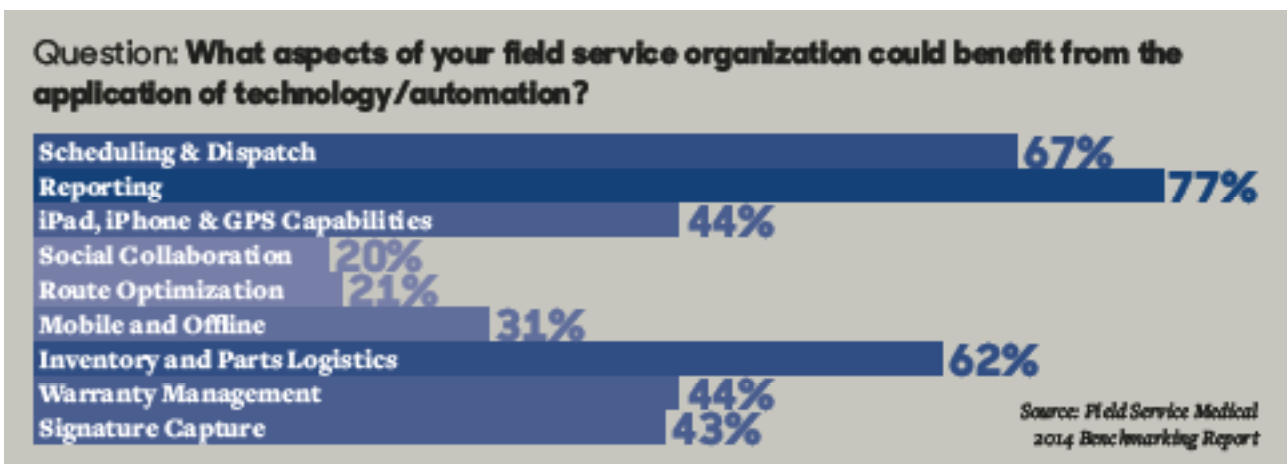**To manage spare parts of medical equipment more efficiently:**

– Make sure your inventory list shows how different service parts are related to each other.

– RFID technology (remote sensors installed in the medical devices) increases visibility when monitoring your service parts inventory.

– Use these remote sensors to set up direct alerts when equipment fails or needs servicing.

– Automate your field parts management by analyzing which parts are ordered more frequently and when.

– Collect performance data on the equipment to analyze where the failures are occurring and under what circumstances. Performance data can also help show the impact the failure has on other parts.

Close

It is much easier to avoid discussions with customers about what work has been done, when there is a transparent report documenting the whole service process. With field service automation software, detailed service reports can be conducted easily. Field service engineers can enter data using their mobile devices. On site, the project leader can easily go through the details of the report, obtain approval for the job, confirm that the work carried out solved the issue, obtain the customer signature, and release the necessary information to invoicing.

Ensure a successful closure of service calls using field service automation software:

– Send a daily report, which includes work carried out, after every check out to ensure your customers are aware of the progress made on the job.

– Create any type of sophisticated report and have it approved by your customer using digital signature.

– Increase transparency and accountability for your customer as well as your whole service team.

– Reduce the time between service call and invoicing.

Question: What aspects of your field service organization could benefit from the application of technology/automation?

Scheduling & Dispatch	67%
Reporting	77%
iPad, iPhone & GPS Capabilities	44%
Social Collaboration	20%
Route Optimization	21%
Mobile and Offline	31%
Inventory and Parts Logistics	62%
Warranty Management	44%
Signature Capture	43%

Source: Field Service Medical 2014 Benchmarking Report

Analyze

Your data is your most valuable asset. Collecting data on service performance in the field is the start point to making your service processes more efficient and improving customer experience. It will help you monitor your KPIs such as service revenue, first-time fix rates, and customer satisfaction. It will also show you where improvements need to be made, whether it's within service teams or with regard to your product.

Use field service automation software to analyze your data:

– What do you want to measure? - Customize checklists to ensure you are capturing the correct data.

– Ensure that field service staff collects this data in a structured way using checklists and tables provided by mobile field service applications.

– Make sure all data is tagged or captured and classified with an ID.

– Feed your data back to the R&D team to improve products or introduce new ones.

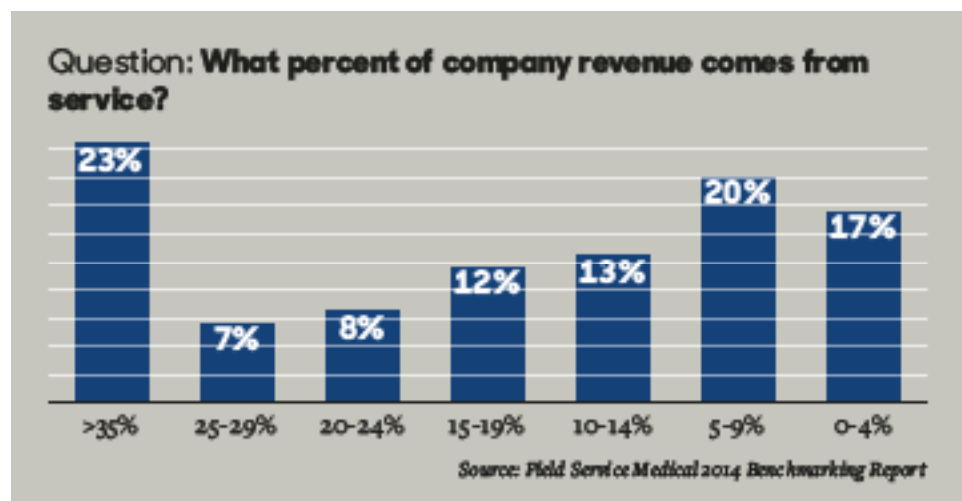– Create dashboards to show the progress of your business.

Market and Upsell

With increased servitization in the medical industry most of your future revenue will come from services rather than products. Tap into the sales power of your field service staff. When your field service engineers are on site and have fixed a problem and made a customer happy, this represents an ideal situation to offer more products, upgrades, and additional services. Field staff can easily upsell and cross-sell on site, because they have high credibility in the eyes of customers.

Furthermore, collecting data using field service automation software will show you what new services customers might require.

To help engineers sell additional products or services:

– Allow them to suggest to customers what products can be replaced or upgraded or when a completely new product is on the market.

– Give them the ability to create sales orders and grant discounts to close deals.

– Incentivize field techs who up-sell products with special programs or rewards.

– Make sure top performers have visibility within the company and get credit for their hard work.

Question: **What percent of company revenue comes from service?**

>35%	25-29%	20-24%	15-19%	10-14%	5-9%	0-4%
23%	7%	8%	12%	13%	20%	17%

Source: Field Service Medical 2014 Benchmarking Report

Field Service Automation For Medical Devices in Practice

Case Study: Fleming Medical

Recently, we spoke to Mark Fleming, Managing Director of Fleming Medical, a company that sells innovative medical products, about his experience with Ink IT Solutions. He said:

"With Ink IT Solutions Field Service Software, our sales force can now access all the information they need at the click of a button, entering sales quotations, adding sales orders and placing service calls while on the move."

Since implementing Ink IT Solutions, the results in their sales and customer services departments have been amazing.

The team at Fleming Medical has experienced:
- Higher productivity
- Shortened delivery times
- Reduced driving time
- Increased face time with customers
- Sales reps complete an extra call per day
- Reduced workload for customer service reps
- Reduced customer complaints
- More sales
- Business growth

Case Study: Depuy-Synthes

When a corporate merger forced Synthes to merge with Depuy, the company, which sells healthcare products, needed a fast solution that would let the two independent sales organizations collaborate and report on the same platform. So they chose Ink IT Solutions. Director Strategic Account Manager, Peter Liniger, said:

"In the future, thanks to the support of the Ink IT Solutions Field Service Software, it will also take significantly less time for new employees to become productive, which is also hugely important for the expansion and success of our sales organization."

Since integrating Ink IT Solutions, Depuy-Synthes has:
- Made more successful deals,
- set a common sales language for their teams,
- reduced sales costs,
- seen higher productivity in new employees,
- collaborated successfully between merged teams.

How Ink IT Solutions Field Service Software Can Help Medical Businesses Achieve Service Excellence

- **Optimize the Service Process:** Standardized processes based on best practices and locked into checklists allow field engineers to carry out service calls in a uniform manner no matter where they are.

- **Reduce Response Times and Improve Quality:** Improve response times – from the minute an order comes in to onsite execution – with pre-defined checklists, procedures, and planning templates. Reduce reporting time and improve the quality of reports by using standard report templates that are automatically populated.

- **Reduce Costs and Increase Profits:** Reduce costs and wastage by increasing and improving back-office efficiency and reducing administrative work, speeding up work order resolution, and reducing planning and reporting time.

- **Improve Data Quality:** Improving the data quality and quality assurance starts with entering the correct data. Offering a limited, selected list of potential answers at the point of entry will improve the data quality, shorten the time needed for data entry, and ensure data consistency.

- **Capture Data for Continuous Improvement and R&D:** Valuable data that your field service technicians capture throughout their maintenance can be fed back to R&D teams for continuous improvement of products and future services.

- **Increase Visibility to All Stakeholders:** Provide access to the same information for all stakeholders, support employees with state of the art tools, strengthen the ambassadorship of employees.

- **Increase Service Revenues:** Give field technicians the tools to monetize their unique upselling capability to extend on-site services. Technicians can instantly produce quotations and seal service orders by capturing a customer's digital signature.

- **Satisfy Your Customers:** Proactive, transparent, visible field service will satisfy your customers by ensuring their valuable time and production runs reliably and efficiently, letting them satisfy their customers. Our automation can reduce your paper trail and ensure your customers have all the information they need for documentation and analysis. Happy customers are loyal customers.

About Ink IT Solutions

Ink IT Solutions is a leading provider of mobile and cloud-based field service and workforce management software for mid-sized and large enterprises' field service organizations. Since Ink IT Solutions' founding in 2006, more than 190,000 users across the world have utilized Ink IT Solutions' innovative, real-time field service management software to improve their business and field service processes. Ink IT Solutions has also pioneered "crowd service" – which allows customers to leverage an Uber-like platform to find available field service technicians in real-time. Ink IT Solutions is headquartered in Switzerland with international offices in San Francisco, Miami, Berlin, Freiburg, Shanghai, São Paulo and London.

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