

FIELD SERVICES PRODUCTIVITY: Mobile Solutions to Optimize Operations and Build Your Business





Field services organizations (FSOs) have a unique need for mobility solutions to keep their traveling employees connected, productive and efficient whether they focus on appliance repair, pest control, insurance adjusting, automotive/heavy equipment repair, building maintenance/HVAC, or other commercial and residential services.

With the objective to stay in touch and in the know regardless of where they are, employees in the field are taking advantage of today's advanced technology to modernize and transform the way they work. In fact, about 75% of FSOs that use mobility tools have observed increased employee productivity, while the rest have seen customer satisfaction rates rise.¹

Equipped with the right mobile devices and integrated applications, field service workers can deliver better quality and speed of service and increase productivity. They can stay up to date on the latest information in real time, consult with remote colleagues and enjoy the same access that in-office employees have to back-office systems, such as inventory systems, time tracking, scheduling and reporting. IT can easily manage and monitor all the company's mobile devices. Supervisors in the office can aggregate and analyze the digital data uploaded from the field and use those insights to identify and address service bottlenecks and unexpected downtime.

Panasonic's rich portfolio of devices and services can help enable a wide range of capabilities for employees

who primarily work outside of the office. Below, one of our Panasonic Connect field services experts, Executive Account Manager Bob Wright, explains how.

QUESTION 1: **What are the biggest challenges to productivity that field services workers face today?**

Although "field services" can encompass a lot of different industries and businesses, they all have one thing in common—the goal to provide efficient service to complete the job, receive payment and move on to the next customer. That's the key to staying in business, and today that requires a high level of productivity.

The most common challenge that can hold FSOs back is getting accurate information to headquarters in a timely manner so the customer can be invoiced. Everything a field services worker does needs to be documented. Having to rely on manual processes for reporting, billing, tracking hours and so on can lead to human error and inaccuracies—especially if the worker must go back to the office at the end of the day to enter those notes into the system. This prolongs the process of invoicing and could mean waiting weeks to receive payments.

Other challenges to productivity include:

Lack of visibility into critical job and customer information—To get the job done in as few visits as possible and with minimal rework, field services workers need access to real-time information such

1. Field Service Management Market \$5.9 Billion by 2024. ISE (March 1, 2020)

Productivity challenges



as schematics, parts inventories, warranties, service agreements and service histories. With online access to inventory, for example, technicians can verify in seconds whether they have the right part on their truck instead of having to physically go and check. They can access repair databases on a device to get the information they need to complete the job right then. Finishing jobs in fewer visits means lower costs and higher customer satisfaction.

Ineffective communication and collaboration—Field service workers need to be able to communicate with colleagues and HQ in real time, just as if they were in the office, so they can make faster, more informed decisions and take care of business issues immediately

while on site with customers. In fact, having remote access to engineers or other specialists in real time while on a job can benefit less-experienced workers and help them complete jobs faster and more proficiently.

Mismanaged dispatch and field assignment schedules —FSOs need to be able to schedule appointments and assign field service employees to jobs quickly and easily. Having the right application on mobile devices can help supervisors efficiently schedule appointments based on locations, organize timelines and send the right worker to the right job.



89% of customers want to see modern, on-demand technology applied to their technician scheduling, and nearly as many customers would be willing to pay a premium for it.²

Lack of visibility into field service worker locations—Not knowing where your people are can result in inefficient route planning and job assignments. When workers can be tracked in real time throughout the day, FSOs can optimize delivery routes, alert workers to traffic or other delays, and more—which can help reduce downtime and make customer service more efficient.

Security and data protection risks—Paper-based files can be lost or stolen, which makes customer data vulnerable. With the right applications on secure mobile devices, systems can be locked down or wiped remotely in the event of device loss or theft. That increases overall security and gives peace of mind to field service workers.

INSURANCE SERVICES

Claims adjusters are usually in the field, serving as the face of their company and responding to claims on site. They need mobile devices and applications that can keep information and customer data at their fingertips. Mobile claims and appraisal applications allow adjusters to enter data on the spot and make immediate decisions, often resolving claims during a single visit. Reporting is simplified with connected tablets and laptops that are integrated with back-office systems.

Mobile capabilities



QUESTION 2:

What are the most important, must-have mobile capabilities for field service workers?

FSOs were among the earliest adopters of mobile devices because they recognized the value of giving field service workers digital access to information. As technology improves, these organizations continue to find innovative ways to use mobile devices. New software and hardware features are enabling capabilities that require more flexibility in operating systems, for instance, and platforms.

Mobile solutions that give field workers access to critical information can significantly improve productivity, including customer account and warranty information, parts availability, service records, and equipment status and performance. They also need mobile-friendly applications that help them accomplish specific tasks.

- **Work order management.** Eliminate manual paperwork and reduce the potential for human error for more accurate and timely invoicing.
- **Inventory management/monitoring.** See in real time what parts are available during a service call.
- **Real-time remote consultations.** Enable technicians to consult with colleagues to resolve complex issues when needed and to complete jobs immediately without the need for a second visit.
- **Scheduling.** Make appointments efficiently and in a manner that allows each field service worker to maximize their time and resources.
- **Fleet vehicle routing.** Optimize driving routes to save time and fuel.

- **Proof of service/digital signatures.** Minimize the need for manual paperwork and send job data to the back office immediately.
- **Reporting and analytics.** Track worker productivity, time spent at each job, common issues experienced by technicians and more for easy reporting and insight into workflows and bottlenecks.

BUILDING MAINTENANCE/HVAC

FSOs that provide installation or repair services for telecommunications, security, HVAC, electrical systems, plumbing and so on spend their days in the field at commercial or residential customer sites. They need quick, reliable access to customer service and account information, as well as the ability to check inventory systems or consult with remote colleagues on specific issues. Digital forms and reports mean fewer files or papers to keep track of, and the stored data can be aggregated and analyzed to help these organizations ultimately improve customer service and satisfaction.



Vital technologies



QUESTION 3:

What's next for field service mobility and productivity? What technologies or functionalities are becoming more vital to success?

Technology is advancing rapidly, and that means digital mobility and productivity solutions are too. FSOs should be looking forward to what's next so they can take advantage of the latest innovations designed to simplify and streamline their work.

The following technologies are launching a new era of mobile productivity:

Cloud-based applications—The cloud is a natural fit for field service, because technicians are out of the office and need to access applications and information from a wide variety of locations. When applications are cloud-based, deployment is faster and upgrading the software is easier. The cloud also makes it easy to upload data from wherever a technician is located, instead of having to wait to get it into the system when they're back at the office.

Integration—Advanced field services solutions are connecting previously siloed systems, such as knowledge management, billing and invoicing,

customer relationship management (CRM) systems, inventory management, scheduling, dispatch, and so on. When these systems are integrated, technicians have access to an enormous amount of information that can help keep them flexible and responsive when they're on site.

Wearables—Devices such as fitness trackers have made wearables very popular with consumers, and that technology is beginning to become more sought after on the job as well. Wearables can benefit field service workers who need hands-free use of their devices for tasks such as equipment repair, lawn care and carpet installation. Some technicians are using "smart glasses," for instance, that deliver detailed instructions or task lists. Others are using wearable cameras to give HQ personnel or colleagues a view of their on-site work. As this technology matures, the industry will see a new level of innovative uses.

Augmented reality (AR)—AR is part of what enables those smart glasses mentioned above. AR allows users to project important data such as schematics onto their view of equipment that needs servicing. It can also provide blueprints of a building, for instance, to a technician who is doing an inspection.

40% of field technicians believe technologies such as AR and virtual reality (VR) are very helpful.³



Internet of Things (IoT)



Advanced IoT—FSOs have used remote monitoring solutions to keep track of equipment and other remote assets for a long time, but the IoT continues to advance and enable more sophisticated capabilities. Through continuous monitoring, field service workers can do preventive maintenance to head off a potential equipment failure—or repair a customer's equipment remotely before the customer even realizes there's a problem. The IoT also helps technicians be more accurate in remote troubleshooting and diagnostics. That can lead to significantly improved rates of remote resolution, first-time fixes and mean time to repair—which results in happier customers and more efficient service overall.

73% of field management firms have already incorporated the IoT into their operations.⁴

Artificial intelligence (AI)—Along with the IoT, AI is becoming a critical component in advanced field data analytics and predictive service models. With AI, FSOs can parse massive volumes of data quickly and efficiently to identify patterns, gain insights into issues, pinpoint potential equipment problems, find new customer opportunities and streamline processes. AI can also help organizations find innovative ways to reduce costs, create new revenue streams, and attract and retain loyal customers.

Customer portals and self-service—FSOs can improve efficiency and productivity with customer portals and self-service capabilities. Customers can self-manage minor support issues online so there's no need to send a technician to their location. With portals, customers can also make service appointments, send in questions or complaints, order parts, and do other tasks that leave customer service representatives free to tackle more complex issues and even eliminate the need for a technician in some cases.

84% FSOs believe AI will have the most impact on improving customer satisfaction (84%) within their organization.⁵

AUTOMOTIVE AND HEAVY EQUIPMENT

Professionals in these industries spend most of their time in the field diagnosing and solving customer equipment issues. This is one sector where IoT sensors can provide valuable information about critical parts that may need maintenance before there's a problem. Technicians need fast, reliable access to colleagues and back-office systems so they can order parts and supplies, consult remotely with other technicians and access service records for specific equipment.

4. How Field Service Management Firms Can Stay Competitive in the Coming Decade. ReachOut (2020)

5. State of AI in Field Service 2021. Copperberg & SightCall (2021)

Boosting productivity



QUESTION 4:

How can Panasonic help FSOs stay mobile and boost productivity?

Panasonic Connect has been an industry leader in rugged mobile solutions for decades, helping FSOs and field service workers change the way they work.

When improving productivity for field service workers, there's no one-size-fits-all solution. That's why we consult with you to determine your specific needs and job requirements. We help customize the types of devices, applications and service you need to be successful.

Field service applications, software and accessories—

Panasonic Connect also works with industry-leading partners to provide complete solutions with industry-specific software and accessories that help workers get the most out of their rugged devices.

Regardless of the kind of work an FSO does, we can help them find the field services applications they need to make their jobs easier—including work order management, inventory management, scheduling, dispatching, route optimization and more.

We also offer reliable and proven accessories from leading partners designed to work specifically with Panasonic TOUGHBOOK® mobile devices and to help make using your device easier and more convenient. Accessories include vehicle mounts, docks, adaptors, chargers, styluses, antennas, routers, mobile printers, and hand and shoulder straps.

Rugged mobile devices—Our TOUGHBOOK product line offers reliable and versatile rugged laptops, 2-in-1s and tablets purpose-built for working in harsh environments and running the Windows® operating system. Features include:

- **Modular design.** Many of our Panasonic TOUGHBOOK devices feature modular design, which increases flexibility with user upgrades that

provide greater functionality. Expansion (xPAK) areas can add capabilities such as True Serial ports to connect to legacy equipment, or a barcode reader and a thermal camera to further increase productivity and future-proof your mobile investment.

- **Rugged durability.** Tested to meet military standards (MIL-SPEC) and ingress protection (IP) standards, our devices can withstand bumps, spills and drops in a physically active environment.



The combination of mobility and artificial intelligence improves field service agent productivity by 30% to 40%.⁶

They can also handle dust, dirt, vibration, extreme temperatures and exposure to substances like oil, grease and caustic fluids.

- **Connectivity.** TOUGHBOOK devices feature wireless options—including Wi-Fi, 4G LTE, 5G and Bluetooth®—with powerful embedded antenna modules that provide connectivity even where signals may be blocked by industrial buildings or large machinery.
- **Hazard certifications.** Depending on your application, your devices may need hazardous location certifications to ensure they can operate safely in hazardous or explosive environments.
- **Ease of use.** Our mobile devices have common forms and features that users are already familiar with, while also offering some functionality geared specifically toward field service workers' needs, such as touchscreens that users can operate while wearing heavy gloves, and lighting options that enable users to see content on the screen whether they're working in a light or dark space.

Services and support

Field service workers need devices that come with robust service and support so they can plan for, select, deploy and manage them with ease and confidence. Panasonic Connect provides:

- **Kitting and deployment.** We can help you get your TOUGHBOOK mobile computers into the field quickly and ready to work. Our deployment services include kitting with third-party accessories such as network adaptors, barcode scanners, straps/holsters and expansion modules.
- **Vehicle mounting and installation.** We offer custom in-vehicle mounting solutions and installation services for a wide range of vehicles. This can help simplify installation planning and management, maximize worker productivity and ensure easy serviceability.
- **Battery monitoring.** With this cloud-based service, we proactively manage your batteries to keep devices in continuous use.
- **TOUGHBOOK Smart Essentials.** Get real-time, actionable insights into the health and utilization of your mobile devices with our Smart Service Suite, a cloud-based tool that helps you understand which devices may not be operating well and why. You can also identify underutilized devices.
- **Security apps.** Defend your TOUGHBOOK devices against security risks with secure, third-party software for data and device protection.
- **Strong warranties and add-on services.** Even a few hours of downtime can be detrimental to your business. We offer a robust basic warranty, as well as extended warranty services and augmented services, such as accidental damage coverage, 24-hour “hot swap” or exchange services. We can even provide on-site service.



TOUGHBOOK products provide rugged mobility solutions designed to keep field service workers productive and efficient. For more information, visit [TOUGHBOOK Field Services Solutions](#) ▶

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