



Why Mobile Tech Matters: Gaining a Competitive Edge for FSOs

Field service organizations (FSOs) rely on mobile technology solutions to stay connected and competitive, whether they serve consumer cable & telco services, commercial facilities, factory machinery, or heavy equipment repair. Whatever their field of business, every FSO feels the impact of modernization trends including augmented reality, digital schematics libraries, diagnostics, advanced analytics, predictive maintenance, new FSO management tools, and enhanced access to contextual information like customer histories and parts inventory.

This paper looks at how FSOs can stay current and remain competitive by implementing mobile solutions that enable new technology and arm techs with tools that increase efficiency, provide better service, and increase customer satisfaction.

FSO Evolution: Trends that Matter

Field service organizations (FSOs) have been heavily impacted by the recent Covid pandemic, which has made it increasingly difficult for technicians to perform in-home and in-field repairs across the globe. As a result, the pressure has increased on FSOs to develop new strategies to improve outcomes, increase the number of first-time repairs to reduce visits overall, streamline technician scheduling, and offer increased visibility into technician tracking in route from their home base to the jobsite.

A recent study found the market for predictive maintenance will grow from an \$3.8 billion in 2020 to **nearly \$14 billion by 2026**, a CAGR of over 23%.

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As a result, many organizations are increasing their focus on new technologies such as virtual diagnosis of equipment in the field, predictive or proactive maintenance instead of traditional break/fix or preventative maintenance. A recent study found the market for predictive maintenance will grow from an \$3.8 billion in 2020 to [nearly \\$14 billion by 2026](#), a CAGR of over 23%.

Another trend impacting FSOs is aging of the workforce. With labor shortages growing in nearly every segment of the market, the demand for skilled workers is driving the need for technology to address some problems that people used to solve. Additionally, the loss of tribal knowledge from having fewer experienced, older workers highlights the need for more collaborative technologies that can help the less experienced technicians solve problems in consultation with more seasoned team members elsewhere in the organization.

On a positive note, as FSOs experiment with new technology, many are realizing that new advances in both hardware and software can translate into entirely new methods of addressing client needs in a rapidly changing market.

Adapting to Change: Challenges Abound

Technology is only one way that the world of FSOs is changing. And many organizations – especially those that are technology-focused- have a love-hate relationship with change, often equating any change with a new challenge. Here are some key changes that FSOs are facing every day:

- Competition is constantly growing, as FSOs compete not only with each other but with equipment and software vendors, system integrators or channel partners, and even their clients themselves.
- Shortages of technicians demand that organizations strive to increase the efficiency of each interaction so techs can handle more calls per day.
- Information silos—such as lack of access to schematics or past service records—can stymie repairs, frustrate technicians and customers, and ultimately delay needed fixes.

The simple fact is that every organization wants to improve first-time fixes, and every customer has constantly increasing expectations and demands for fast and responsive service around the clock and anywhere it is required.



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New Technology Drives New Use Cases

FSOs who embrace augmented reality, drones, internet of things (IoT) and the advances in connectivity that 5G and WiFi6 bring find they are able to solve a broad range of previously intractable problems across the field service universe. For example:

- Manufacturers are using thermal imaging sensors to improve assembly line efficiency by spotting issues such as bad welds as they occur
- Augmented reality enables technicians facilitate repairs by overlaying virtual images on equipment to assess condition, order replacement parts, and provide detailed work instructions.
- Crews on the shop floor are leveraging information collected by IoT sensors to spot issues in real-time, often before a problem becomes a failure
- Techs servicing power and gas lines can use tablets as controllers for drones deployed in the field, both for surveying whether power lines are being encroached on by trees and for repair work like detecting gas leaks or downed lines
- Dispatchers and drivers are using geographic information systems (GIS) data to optimize routes, reduce travel time, and track technician locations, and combining GIS data with real-time traffic information to help construction site inspectors avoid a downtown traffic jam or reduce the repair time for an HVAC technician by re-routing around a construction site.
- Electrical engineers access CAD drawings in the field, including modifications that may not have been part of the original design
- Vehicle fleets can take repair on the road, performing service either in the garage or on-site
- FSOs of all kinds use technology to extend tribal knowledge from the experienced—including retirees—to trainees via remote consults and collaborations.



The Stakes are High for FSOs

FSOs that are not equipped to meet today's technology and market challenges will be placed at a competitive disadvantage. Maintaining the status quo by failing to improve efficiency can seriously impact both margins and the organization's bottom line. Specifically, the inability to increase first time fix rate for service calls leads to customer dissatisfaction, lower net promoter scores, and ultimately to lost business.

The harsh reality is that those FSOs who do not adopt and integrate the latest technologies may suffer existential threats to their very business.

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What Tools Make a Winning FSO?

There are a number of mobile-optimized solutions coming to market that help FSOs better compete in the field. These software-driven tools can drive down time-to-fix, increase operational efficiency and contribute to bottom-line profitability. A key to success with new tech is to offer easy integration between field mobile devices and the back-end HQ systems that deliver field service management that powers the business.

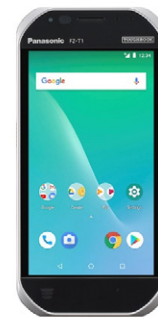
FSOs and their technicians demand:

- Access to contextual information wherever a technician needs it – whether on-site, working remotely, or on the road – with connectivity that just works
- Ability to support a distributed, remote workforce that needs access to information to do their jobs better
- Mobile field service solutions for collaboration to help inexperienced techs solve problems quickly
- A range of devices with the power to handle the latest software and technologies with dependable connectivity and battery life to spare, regardless of physical environment

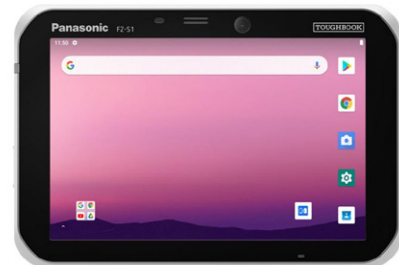
Introducing Panasonic TOUGHBOOK

By offering a premium brand with a broad range of customizable, purpose-built FSO devices, Panasonic TOUGHBOOKs deliver ‘all of the above’ plus backwards compatibility enabling connectivity into any existing network. With a full product line including rugged tablets, handheld computers, and rugged laptops, Panasonic goes the distance by delivering not just devices but also a complete range of industry solutions for field service, factory floor, energy, medical, fleet service, and engineering, just to name a few.

Panasonic TOUGHBOOKs offer mil-standard durability – including third party certification that tests screen visibility, glove touch capability, and ruggedness to survive even the harshest environments. Every Panasonic TOUGHBOOK mobile device offers superior reliability, the latest wireless connectivity, and built-in security that protects the device, the FSO’s data, and the network itself.



TOUGHBOOK T1. This slim and sleek Android OS based handheld can be used to collect information from workers in retail stores, warehouses field service, transportation and delivery or many other environments where work must occur. It features a quad-core processor, barcode reader, optional pistol grip, and connects to 4G LTE voice and data.



TOUGHBOOK S1. This rugged Android 7” has a powerful octa-core processor, supports 4G LTE and FirstNet® connectivity, and an optional extended-life battery that supports warm swap functionality for use in logistics, transportation, retail and field service, and more. The S1’s outdoor-viewable display with patented rain mode and glove touch functionality makes it the tablet of choice for outdoor workers everywhere.

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The bottom line is simple. Panasonic TOUGHBOOKs help FSOs address both today's needs and tomorrow's dreams. And to help ensure every organization's success, FSOs can leverage services and support including Panasonic's ProServices that go far beyond warranty and repair to include deployment, kitting, installations, battery and device monitoring, custom engineering, and technical services to help solve virtually every FSO challenge.

Learn More

For more information about how Panasonic can help field services organizations, explore our [Website](#) or visit the [Resource Center](#).

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TOUGHBOOK G2. This brand-new Windows 2-in-1 offers a groundbreaking modular product design that has three expansion areas offering 36 different combinations to deliver the ultimate computing experience. Keeping backward compatibility to most docks makes it possible for customers to upgrade technology while reusing existing mounting hardware. With a keyboard option and single 18.5 hour battery, it is aimed at professionals who need a rugged, yet versatile, device they can rely on in a wide range of challenging work environments.



TOUGHBOOK A3. This rugged Android 10.1" has all the features of the 7" S1 tablet, plus insertable stylus and optional barcode reader and insertable smart card reader, making it ideal for FSOs. Its outdoor-viewable display, featuring a 5' foot drop rating and IP65 certification for dust and water resistance make the TOUGHBOOK A3 the right rugged device to get more out of every FSO technician's day.