

WHITE PAPER

How Rugged Mobility Powers Digital Transformation for the Food Supply Chain Industry

➤ Rugged mobile solutions open a window into the food supply chain, reliably collecting critical inventory data to reduce risks, cut costs, and inform employees and customers.

Business leaders that own part or all of the food supply chain are struggling to cope with big changes driven by shifting consumer demands, stringent food safety regulations, and new competitors exploiting disruptive technologies. The entire food wholesale/distribution layer is in flux.

To handle such changes, these business leaders need vastly improved visibility into their food supply chain to successfully execute their business plans. Food distribution business objectives typically deal with:

- Improving customer service levels
- Ensuring traceability of every item or even ingredient from multiple sources
- Satisfying federal Food and Drug Administration mandates
- Responding to trucking industry changes or innovations
- Sharing critical data with upstream or downstream business partners
- Achieving competitive advantage through new service offerings
- Adapting faster to weather or other events that can delay or disrupt deliveries

Rugged handheld devices on highly reliable wireless networks are an essential enabler for achieving these goals. They create an indispensable “smart edge” that generates accurate, detailed data in near real time. Business units can leverage this data with existing business applications and with other emerging technologies—such as sensor networks, the Internet of Things (IoT), predictive analytics, and more—to improve efficiencies, automate processes, optimize routes, and squeeze out costs at any stage of the food supply chain.

Finally, rugged mobile devices have a proven return on investment (ROI) when properly selected, deployed, and maintained.

Rugged mobility is the essential strategic differentiator your business needs to survive and thrive in a disrupting industry.

The Business Impact of Food Supply Chain Disruption

The constituents of the U.S. food supply chain remain unchanged—producers, distributors, and retailers. But the relationships between them—and the market demands that each face—continue to change quickly. For distributors and wholesalers, especially acute needs include:

- Greater responsiveness to seasonal and market trends
- Faster, accurate order fulfillment
- Improved quality
- Increased logistics efficiency
- Food safety requirements
- Real-time order updates and changes

As a result, food distribution business leaders focus on outcomes such as improving customer service levels, creating entirely new services, meeting FDA mandates, improving efficiencies, and wringing out costs. These are business issues that transcend individual business processes.

To satisfy these needs, food distribution business leaders need visibility into the complex food supply chain—knowing how much of what items are available, and where, at any point in time.

Complete, real-time visibility entails an array of integrated systems. But a reliable mobile solution is the cost-effective, extensible foundation that enables these leaders to achieve their business objectives.



Business Needs Drive Mobile Technology Requirements

Mobility enables the organization to accurately capture critical data at critical times. This data is vital to increasing operational visibility, improving decision-making, streamlining order processing, and quantifying customer service levels.

To achieve these business ends, the data must be accurate, reliable, and timely. These are the realities that should govern the organization's assessment of mobile solutions. These solutions must demonstrate the following critical capabilities:

- Handheld devices that are easy to learn and use
- Fast and accurate barcode or RFID scanning
- Long battery life
- Where needed, voice interfaces that are effective in “noisy” work environments
- High durability through rugged design and technology so that devices will endure rough handling, repeated drops, vibration, water, and temperature extremes
- Highly reliable wireless connectivity, which encompasses both devices and networks
- Security standards and best practices – in tandem with a full mobile device management program and enterprise data security strategy – that secure connections, block attacks, and protect customer data
- Interfaces to simplify and strengthen integration with centralized ERP platforms and other business applications and with trading partners' digital networks, IoT, RFID solutions, GPS data, and more



A rugged mobile solution leverages these capabilities to help achieve the specific business goals and ROI targets of food distribution business leaders.

It becomes the reliable source of data that feed into existing business applications for inventory management, invoicing, food safety and customer service.



Mobile Solutions: a “Force Multiplier” for Food Supply Chain Operations

Introducing or expanding rugged mobile solutions can dramatically improve operations at many points in the food supply chain.

These solutions are a type of “force multiplier.”

In business terms, a force multiplier is something that enables an organization to dramatically improve or increase its business performance. Rugged mobile solutions have this potential. These solutions achieve this potential by establishing what can be thought of as the “intelligent edge”—the locations where a range of employees not only collect data but also act on it.

They leverage these capabilities in an array of critical business tasks:

- Fulfilling orders more quickly due to accurate inventory locations
- Monitoring cold chain warehouses to maintain food quality, safety and freshness
- Streamlining product movement in and out of warehouses
- Optimizing delivery of time-sensitive orders
- Confirming delivery
- Restocking and “put-away” activities

These same capabilities can be extended from distribution centers and large warehouses to new decentralized distribution modes, such as localized distribution channels and truck-based mobile warehouses.

Align the Mobile Solution with Your Tech Maturity Level

Rugged mobile solutions—properly designed and deployed—deliver business value regardless of your organization’s existing technology maturity level.

Some leading-edge companies are experimenting with artificial intelligence applications to detect market changes, predict their pace and scale and recommend various changes in the supply chain to optimize product flow and delivery. Highly reliable and accurate inventory data via rugged handhelds are vital to supplying these data-intensive systems. A less advanced regional distributor may speed up order picking by moving from a manual or partly automated process to one using a mobile voice interface that frees both hands. There are different device types, attendant software and integration needs for different business objectives.

Mobile solutions for increased supply chain visibility are proven technologies. Solution vendors offer—or partner with other companies for—consulting, design, deployment, and even operations services. As a result, food distribution business leaders can select solutions that fit their organization’s maturity level and build on this solution in the future, increasing its scale and scope as needs and opportunities change.



Realize Your ROI Targets

Rugged mobile solutions have two key ROI benefits. First, the solution’s own ROI can be accurately calculated. Second, the solution’s reliability is a key enabler to ensuring that larger, business critical initiatives can achieve their ROI targets.

Mobile solutions for food distribution consist of discrete, quantifiable products and services. As a result, business leaders can accurately scope these solutions and set measurable, verifiable ROI objectives.

At the same time, these solutions are enablers for a wide range of other business initiatives in areas such as customer service, logistics, fulfillment, and more. These initiatives in today’s food distribution market assume the availability of and access to data and applications. Reliable, ruggedized mobile solutions can deliver that capability. That’s because these solutions—and their constituent elements—are designed to be:

- Durable in adverse or demanding environments
- Reliable in network connectivity
- Long-lived in battery life
- Compatible with business systems



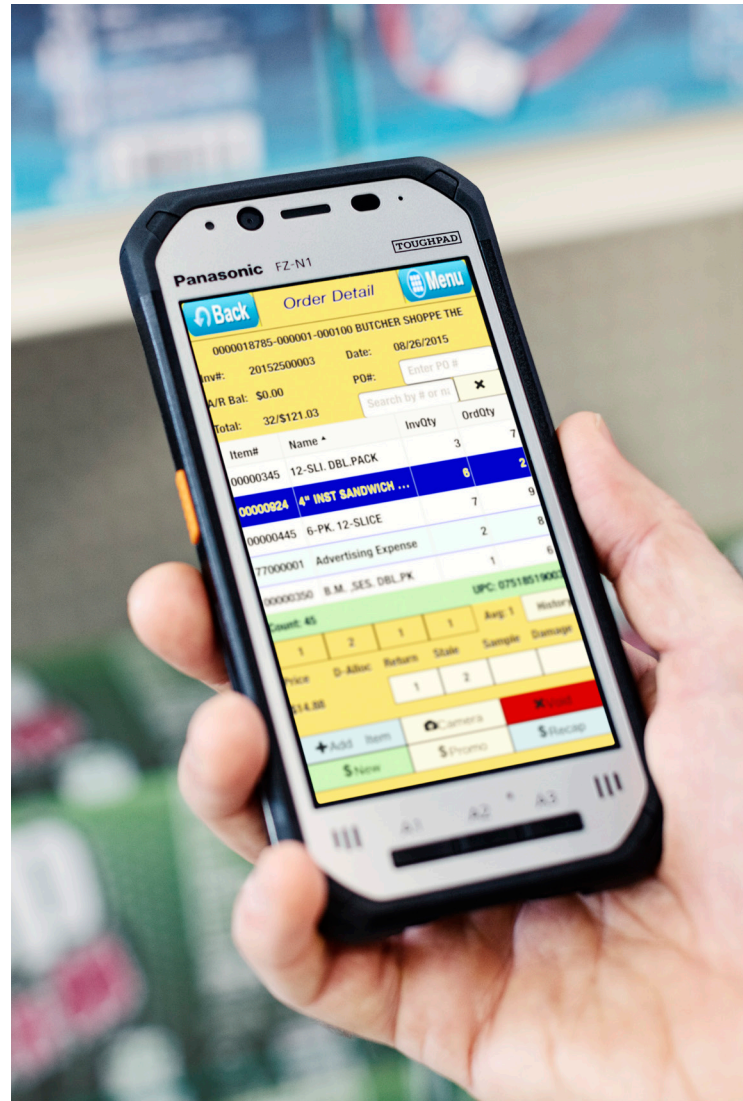
How Panasonic Mobile Solutions Support Your Business Success

Panasonic focuses on business outcomes. The company's mobile solution consists of:

- TOUGHBOOK® laptops, tablets and handhelds, designed for long-lasting durability to minimize failures and downtime, including the first rugged Android™ -based handhelds
- Connectivity and deployment services
- Partnerships with a broad ecosystem of software and platform providers for vertical markets
- Security and mobile device management software

The company works closely with customers to understand their business objectives, user requirements and ROI expectations.

It has decades of experience working with IT and operations staff to deploy mobile solutions effectively and to integrate them with existing and emerging enterprise systems and technologies.



Panasonic combines rugged hardware, vertical software and services to create mobile solutions that help food distributors, grocers, and convenience stores balance inventories with varied expiration dates and thousands of SKUs. The company specifically designs and develops TOUGHBOOK handhelds and tablets for a wide range of distribution center and front- and back-of-store operations. These include direct store delivery, cross-docking, inventory tracking, scanning barcodes, and restocking. Panasonic devices feature exceptional durability and long-lasting product and battery life. Swappable batteries last across multiple shifts. There is a broad ecosystem of device accessories, such as angled barcode scanners, pistol grips and payment sleeves.

For more information on how Panasonic can help the food industry solve some of its most urgent business problems, explore our [TOUGHBOOK for the Food Supply Chain page](#) or visit the [Knowledge Center](#).