GO RUGGED,
STAY CONNECTED

Rugged devices and mobility
are playing a leading role in today's warehousing
and logistics operations

connected by

verizon✓

PEERLESS
CONTENT CREATION

WHITE PAPER
Sponsored by

verizon√

GO RUGGED, STAY CONNECTED

RUGGED DEVICES AND MOBILITY IN WAREHOUSING

AND LOGISTICS OPERATIONS

W ith customers expecting faster delivery times and high-quality products at the best possible prices, companies are pushing harder to implement "anytime, anywhere" supply chains that rely heavily on connected, mobile devices to run smoothly and efficiently. In return, shippers are gaining better visibility and the ability to monitor performance in real-time to make key decisions on the fly.

Whether it's rolled out in the warehouse, in the yard, or across transportation networks, the blend of mobility and rugged devices helps companies conquer their e-commerce and omni-channel fulfillment challenges in a business world where the digital supply chain is evolving at the speed of light.

Companies that opt for consumer-grade devices over rugged options learn quickly that the former often doesn't cut it in the logistics environment, where everything from dropped tablets to freezing-cold warehouses to dirty yards can take a toll on equipment performance and lifespan. "We've seen situations where someone places a device on a truck lift gate, only to have it drop onto the ground as the driver puts the vehicle into gear," says Sean Cavanaugh, Client Partner, Connected Solutions, for Verizon Wireless. "The next thing you know, someone else runs the device over, rendering it useless."

In this white paper, we delve into the key benefits of deploying rugged devices and mobility in the warehouse and across the supply chain, discuss the various solutions available in today's market, and show how one company shelved its consumer-grade device approach to fleet management in favor of one that incorporates rugged devices and 4G LTE cellular connectivity.

The Case for Rugged

E-commerce and the subsequent omni-channel fulfillment challenge have all markets moving at digital speeds in terms of logistics and transportation management. To remain competitive, companies need a digital supply chain that's connected—and that stays connected—using rugged devices that can withstand the harsh logistics environment outside the four walls of the warehouse.

"Rugged helps improve productivity without having to deal with 'swapping out' devices because of frequent breakage," says Cavanaugh. "Rugged devices also have longer life spans than consumer devices, provide more control over updates, and are less reliant on the constantly-evolving consumer device market. Consumer devices will cost less initially, but there are costs associated with device swaps that can erode that savings."

For example, Cavanaugh recently worked with a firm that was using consumer-grade handhelds for proof of delivery activities. The company was purchasing $40 rugged cases to protect those devices, but when it upgraded to new devices, it learned that case provider didn't make a case for its new equipment. "They had to rework an entire project around a $40 case," Cavanaugh explains. "Had they gone with rugged in the first place, they wouldn't have had that issue."

In comparing consumer-grade devices versus rugged options, Cavanaugh says security updates can create major headaches for companies using the former. Companies like Apple and Samsung, for example, put their phones into the hands of millions of customers and, as such, push out frequent updates. "Shippers want control over those updates," says Cavanaugh, "but in most cases, they're forced to accept the device updates, so it's largely out of the shippers' control. The options are to accept updates when they come or block them and potentially be unsecure. This is causing headaches for IT Security and has also caused some firms to re-think consumer grade."

The Connectivity Factor

A must-have within the four walls of the warehouse, cellular connectivity provides everything from real-time visibility to more efficient operations to improved productivity. The same rules apply *outside* of the four walls of the warehouse, where a secure Wi-Fi infrastructure that passes PCI compliance has become a critical link in the digital supply chain.

Making that happen isn't always easy, particularly when companies attempt to expand Wi-Fi out into the yard without paying close attention to security and other technical concerns.

"This is where the value of cellular comes in, and ensures that companies don't have to stay within their own four walls—or even within their own environments—or worry about segmenting their networks from other corporate traffic," says Cavanaugh. "With Verizon, we can give drivers a rugged device to use out in the middle of nowhere on our cellular network, and they can communicate and collaborate as if they were sitting in the office without the need to build out their own wireless infrastructure."

Facilitating that communication and collaboration is a rugged device that can withstand the rigors of the logistics environment, where sunlight-readable displays, good shock absorbency, and long lifespans are all key requirements. With electronic log books now mandated, for example, drivers need reliable devices and connectivity as they make their way across North American highways and byways.

InSight Mobile Data: Rugged in Action

Dedicated to providing real-time visibility into the mobile work environment, InSight Mobile Data develops innovative, flexible fleet management, asset tracking, and mobility solutions that provide real-time visibility into the mobile work environment. One of InSight's solutions is ELD Safety and Compliance, a solution that provides a variety of apps, reports, and software tools that help fleets to comply with federal regulations for electronic logging.

To develop that solution, InSight needed an in-vehicle tablet on which to load applications. It initially used consumer-grade devices housed in commercial grade cases, and cobbled together a power and docking solution for the device.

However, it soon became clear that the end product was too expensive and too difficult to deploy and manage because there were too many vendors involved in supplying the different pieces of the package. This made it difficult for InSight to sell, and even more difficult for the customer to buy, as the customers then had to deal with multiple vendors to service the product.

A Verizon partner, InSight worked with JACS Solutions to identify the TT800V semi-rugged device equipped with 4G LTE connectivity, Wi-Fi, and Bluetooth. The rugged device came with features that consumer-grade devices couldn't offer.

For example, it was tested for extreme temperatures, a useful feature when it is mounted in vehicles that have to operate in hot or cold climates. The TT800V can also be locked down at the firmware level, thus preventing users from deleting apps. It also enabled the company to hide applications behind the scenes so that it had control over tools like Google Maps, for instance.

"This is where the value of cellular comes in, and **ensures that companies don't have to stay within their own four walls—or even within their own environments**—or worry about segmenting their networks from other corporate traffic."

—Sean Cavanaugh, Client Partner, Connected Solutions, for Verizon Wireless

---

Since implementing its rugged solution, InSight has streamlined the sales process and implementation of its ELD solution. Its applications have been standardized on one device and with one configuration.

Installation of InSight's mobile work solution on vehicles is now much easier, and customers need only power the docking station in order to connect the device with no additional configuration required. Today, InSight's customers can access critical documentation like dispatch forms, Sygic navigation applications, and InSight's Street Eagle Mobile—all from the tablet.

So far, InSight has deployed hundreds of units in the field and will be deploying hundreds more in the coming months. "There's no question about JACS Solutions giving us a competitive advantage...a big advantage," says Doug Hawley, COO of InSight Mobile Data. "Our customers are happy that we have one solution that's solid, that works, and that takes the decisions out of it. And I will tell you that we're selling more as a result of having this type of solution."

Combatting Short Product Lifecycles

On a mission to get products where they need to be quickly, cost-effectively, and in good shape, a growing number of companies are incorporating handheld computers, tablets, and vehicle-mounted computers—all connected via cellular—to their supply chain toolkits.

Offering a ruggedized form factor that can withstand the pressures of the warehouse, distribution center, yard, and transportation network, these mobile devices also provide risk mitigation while on the road, improved uptime for drivers, easier electronic logging that's compliant with government regulations, smoother deliveries, and more satisfied customers.

"Since implementing its rugged solution, **InSight has streamlined the sales process and implementation of its ELD solution**. Its applications have been standardized on one device and with one configuration."

"The lifecycles are very short these days on consumer devices, so by the time a company rolls out its device or tablet initiative, the next generation of that device is probably already being released," Cavanaugh explains. "That can create problems and bottlenecks in the supply chain as companies struggle to keep up."

To firms wanting to leverage the value of rugged both inside and outside of the warehouse and across their logistics operations, Cavanaugh says that the first step is to do a thorough internal assessment to figure out what you have in place now, where you want to be, and what you need to do to get there. He suggests that you talk to providers and other companies in your industry about the options, and find out what others are using to achieve their own goals.

"Look at what others are doing in your industry and talk to some experts (e.g., systems integrators or logistics providers) that have experience in the 'consumerization of IT' arena," says Cavanaugh, "and then take the time to find a rugged solution that may cost a little more, but that will deliver some key benefits in an environment, where consumer-grade devices very often fail." ■

About JACS Solutions:

JACS Solutions is a leader in providing customized and secured smart device solutions to meet business customers' needs in mobile enterprise, Machine-to-Machine, and IoT. JACS enterprise -grade tablets, smart displays, and accessories are customizable from hardware to software, transforming them into purpose-built business tools for our customers. Founded in 2011, JACS is one of the fastest growing companies in the industry. Close to 1 million JACS devices have been deployed in the U.S. and around the world. Next-gen Telematics, health care, retail and other industries have utilized JACS customized smart devices to support regulatory compliances and advance business processes, patient care, and customer services.