

Time to Replace Laser Scanners in the Last Mile

Get your driver operations ready for global peaks in deliveries



What You'll Find in this Guide

Delivery companies across the globe are increasingly looking to digitalize delivery processes to increase productivity.

Front-line drivers and delivery workers require smart data capture technology that is reliable, flexible and helps them get the work done effectively.

As a result, smart devices equipped with smart data capture software are becoming the technology of choice for logistics and delivery enterprises.



200 billion

Global shipping volumes anticipated to reach 200 billion parcels by 2025

Source: Pitney Bowes' Shipping Index Report

Scanning, and the choice of last mile technology, is essential for delivery operations. It has a critical impact on unlocking efficiencies and business benefits.

High-performance, and user-friendly, smartphone scanning solutions add speed, efficiency and innovation to typical delivery workflows. They proved their value, compared to traditional dedicated scanners, during the pandemic, achieving rapid scalability at a competitive price.

In this guide, we reveal:

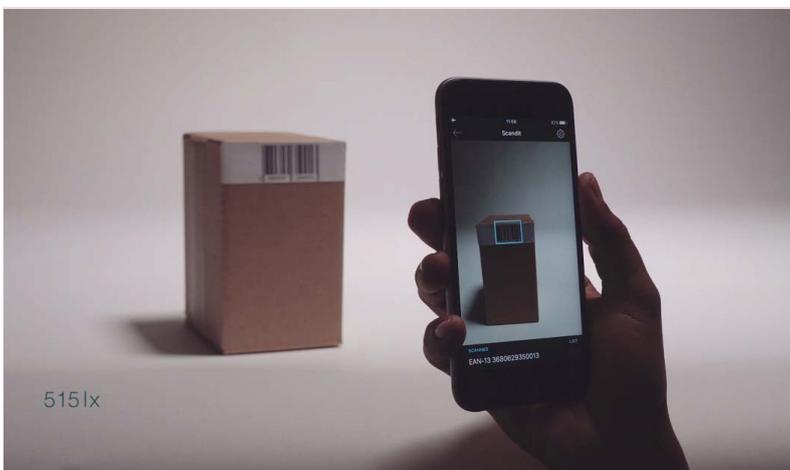
- The five commonly cited myths on using scanning-enabled devices versus legacy single function hardware scanners.
- The hidden benefits of smartphone scanning and how smart device performance compares to handheld scanners.
- How customers benefit from enterprise-grade barcode scanning and augmented reality apps in the last mile.

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Myth #1: scan performance of dedicated devices can't be matched



Scandit-powered smart devices can often outperform handheld barcode scanners. All while providing the robust and reliable performance needed on delivery routes.

Smart devices with Scandit Smart Data Capture leverage both a device's computing capabilities and its high-resolution camera.

And that's not just high-end smartphones. Watch Samsung and Scandit experts discuss smart device performance [here](#).

Scanning essentials for productivity

Speed, efficiency and the ability to scan at distances have proven to be essential in supporting quick and error-free deliveries. So too is the ability to scan in challenging conditions such as low light (see above).

Scandit Smart Data Capture brings accurate high-performance smartphone scanning to real-life conditions. Whether loading parcels in the depot, searching for a package in the back of the van, or getting proof of delivery on the doorstep.

Conditions can include:

- Low light or glare, when scanning in depots or the back of a truck.
- Awkward angles of up to 80 degrees, reducing the need to bend down or climb a ladder.
- Tough codes, whether damaged, curved, marked or tiny.

Scandit's single scanning speed at 480 scans per minute matches dedicated hardware scanners.



Myth #2: battery and power performance can't last a worker shift

You want productive workers. So it's essential that the barcode scanning device – handheld scanner or smartphone – outlasts the business day. One commonly cited myth is that smartphone batteries won't last a shift.

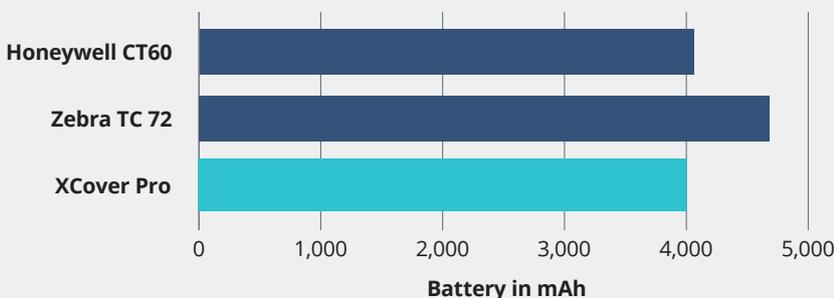
But smartphone manufacturers understand the critical importance of battery power and performance, and continue to improve it with every new model. And the scanning software is also key to saving battery power.

For example, a popular rugged Android smart device was recently shown to deliver 12,000 scans on a single charge - scanning every 2 seconds - when powered by Scandit's [Barcode Scanner SDK](#). More than enough for even the longest route in peak season!

Want more? Smart devices that support pogo pins allow reliable, frequent recharging in the van while out on the road.

Smartphone models are also available with replaceable batteries for shared devices that are used across multiple shifts. That not only extends their lifetime but allows batteries to be swapped out as needed, to enable powerful scanning performance 24/7.

Smartphone Battery & Power Performance



Battery Performance Test:
Number of scans on a XCover Pro single charge (activating the scanner every 2 seconds) with Scandit SDK:

12760



Myth #3: Smartphones lack ruggedness

Dedicated barcode scanners withstand heavy usage within demanding delivery environments. But there is a huge choice of rugged smartphones and tablets specifically designed to withstand rough treatment in the van.

For example, statistics for the [Samsung XCover Pro](#) show it matches the ruggedness needs of key workflows during on-the-road operations. It has robust durability suitable for depot environments, hot vehicles, and bad weather deliveries.

It compares favorably with dedicated hardware scanners for ruggedness. Only it has a sleeker, user-friendly, and future-proof form factor. And this is just one of many enterprise-ready rugged devices available to select from.

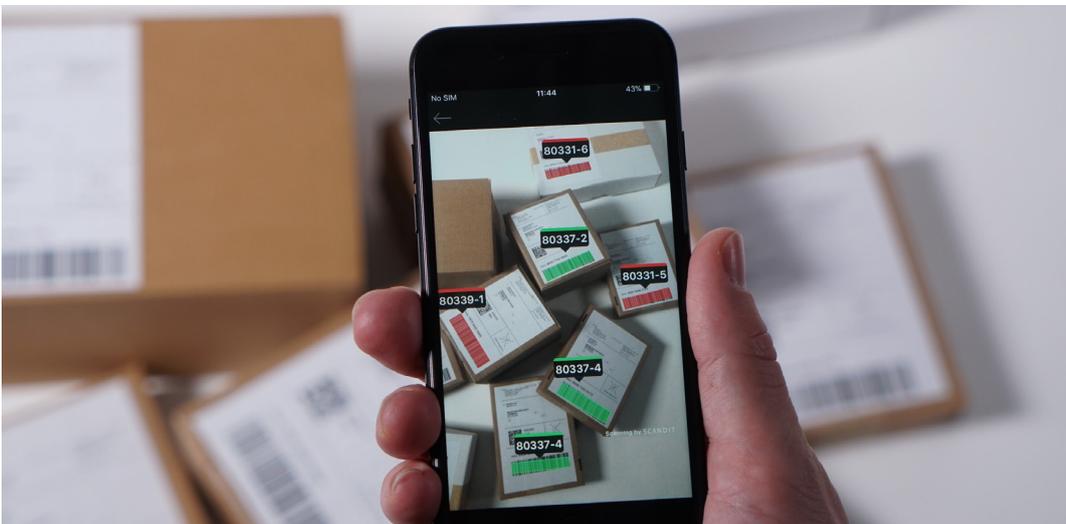
Adding a tough, durable case also increases the ruggedness of any smart device. And it will reduce costs compared to a dedicated scanner.

Check list:

- ✓ Drop resistant to 1.5 meters
- ✓ IP68 rated for rain, snow and dust ingress
- ✓ Water resistant for 30 mins at 1.5 meters
- ✓ Temperature tested from -4 to 70°C
- ✓ Altitude tested to 15,000 feet



Myth #4: smartphones don't provide the same user experience



Scandit's enterprise-grade scanning for mobile apps works on more than 20,000 smartphone models, making it easy to find the right one for your business.

Also the smartphone offers a great user experience by delivering:

- A single lighter device, making it easier to carry throughout a full shift.
- The ability to do more like take calls and access navigation guidance.
- A familiar interface and a guaranteed scanning performance in even the toughest delivery conditions.
- A range of models to suit different functions, environments and workflows.

They also come with wide screens to aid legibility, for example, when pulling up documents at the point of delivery. Some models feature increased touch sensitivity so they can be used with gloved hands. Or

wet touch functionality for deliveries on a rainy day.

There are options for users who prefer the same physical button found on a laser scanner. Smartphones are available with a configurable button that fits the natural position of the hands while scanning.

You can optimize tasks, like loading the van or finding a package, by using smart data capture capabilities to drive greater efficiencies in everyday processes. Like:

- Scanning multiple barcodes at once to identify a single package via AR.
- Displaying parcel information – like delivery zones or special delivery instructions – directly to a driver's screen with an AR overlay.



Myth #5: smartphones are not secure and ready for enterprise deployment

Smartphones are widely used in corporate environments. Some businesses run a Company Owned, Personally Enabled (COPE) strategy.

Here a company equips its logistics staff with a mobile device. An alternative is Bring Your Own Device (BYOD), where companies allow staff to use their own device on the job.

Either way, the chances are the device is supplied with multi-layered security. This is often built into both the hardware and software to be enterprise-ready. For example, Samsung's Android devices have its built-in defense-grade mobile security platform, Knox.

Knox provides:

- Intrusion and malware protection.
- Security features such as facial recognition and fingerprint access.
- Extended support, which includes a four-year security maintenance release, guaranteed security patch updates and protection from mobile security threats.

Companies can apply these safeguards with cloud-based storage to protect against theft or loss. Also, with Scandit software, security and data privacy from the data capture is assured. All data processing is done within the device.



The hidden business benefits of smartphone scanning

Having put some common myths to rest, here we'll explore three of the tangible benefits of smartphone scanning you may not be aware of.

1. Reduce upfront investment and lower the total cost of ownership (TCO)

Switching to smart devices allows you to balance price and performance, depending on whether you need single scanning or more advanced augmented reality (AR) functionality.

The cost of smartphones enabled with Scandit barcode scanning is typically **three times** lower than dedicated barcode scanners. This reduces operating costs and financial risk by lowering your upfront hardware investment.

Consider BYOD for further savings

Deploying a BYOD strategy, where workers use their own familiar smartphones, also reduces any hardware outlay. It is an ideal solution for leveraging the gig economy or scaling operations for seasonal peaks without intensive training.

Many drivers are struggling to juggle radios, dedicated scanners and dispatch information devices. Smartphones are perfectly positioned to replace all three, increasing savings and providing a single last mile solution.

YODEL

How BYOD Smartphone Scanning Delivers Digital Transformation for Yodel

Yodel saved on hardware scanning costs and enhanced the user experience by moving to Scandit for a 7000+ delivery driver fleet.

[Read more](#)





2. Effortlessly meet unexpected peaks

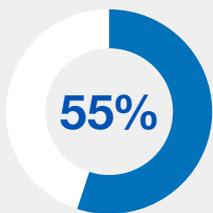
Recent research by VDC and Scandit found that organizations who heavily rely on scaling for peak season (>30% of their fleet size) double down on eliminating process inefficiencies (83.3%).

For those organizations that scale less and maintain more consistent workforce numbers, only 59.1% rate scaling as one of their biggest challenges.

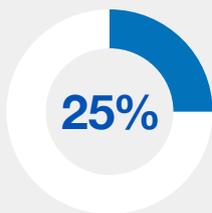
Businesses need to adapt quickly to unexpected demand fluctuations while riding along with more predictable seasonal peaks. Many have turned to smartphones to deliver a simple, scalable solution.

Providing employees with smart devices or allowing them to use their own is a flexible and cost-efficient alternative to dedicated scanners – enabling you to quickly hire workers on-demand when operational peaks arise.

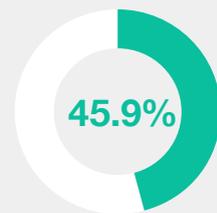
Other challenges include:



55% and 25% of companies in Europe and the US respectively, said reducing process inefficiencies was a major challenge



38% of US delivery companies said their biggest issue was recruiting new drivers



45.9% of European businesses rated providing new services to customers as a top 3 last mile challenge



3. From replication to innovation

Smartphone scanning more than matches the performance of dedicated devices in real-life deployments. For those wanting to drive innovation, it offers a whole range of added value, improving workflow efficiency and user experience.

Developers can replicate the same user experience of a rugged scanner to maintain existing workflows without disruption. Customizable push-to-scan buttons offer the same process as before. But Scandit Smart Data Capture enables many more advanced use cases.

Continuous scanning

Continuous scanning offers greater speed and efficiency for high-volume scanning. After activating the scanner once, it detects multiple barcodes without multiple button presses, saving time and reducing fatigue for employees scanning large shelves.

MatrixScan Augmented Reality (AR)

[MatrixScan AR](#) offers high-efficiency batch scanning with real-time feedback. Instantly detecting all the multiple barcodes on one screen instead of scanning one after another. MatrixScan visualizes workflows and errors with real-time AR overlays on device screens, such as real-time optimal loading order suggestions.

ID Scanning

[ID scanning](#) supports the verification of age-restricted goods deliveries, seamlessly scanning ID as part of the proof of delivery process.

AR improves workflow efficiency

Employee productivity – search and find parcels at the delivery point. MatrixScan AR helps to quickly identify the right parcel to deliver at each stop.

Process efficiency – from load to delivery. MatrixScan AR captures multiple parcels labels and visually gives loading order suggestions.

Scandit smartphone scanning solutions can be easily added to any environment including existing apps or workflows. The speed of integration means it's an ideal way to digitalize your last mile workflows without disrupting operations or breaking the bank.

Expected Annual Operational Productivity Gains

195,000

man hour saving

\$2.9m

process cost reduction

Expected Annual Operational Efficiency Gains

24,000

man hour saving

\$300,000

process cost reduction



So, isn't it time to reconsider hardware scanners?

Smartphone scanning can replicate the speed, performance and reliability of a dedicated scanner, and is a more cost effective, scalable solution.

But to simply see smart devices as a direct replacement for dedicated barcode scanners overlooks their potential to innovate. There are numerous opportunities to improve processes, streamline device usage, and accelerate capabilities support digital transformation. As well as future-proofing your last mile workflows.

If you would like to find out more about Scandit Smart Data Capture in the last mile, or have another smartphone myth you would like us to help bust, get in touch or try out our demo apps today.

GET IN TOUCH

DEMO APPS

Scandit Smart Data Capture on smart devices provides actionable insights and automates end-to-end processes by capturing data from barcodes, text, IDs and objects.

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