# 5 Challenges Retailers Face with Barcoding Systems

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Retailers rely on barcoding systems to enhance efficiency and productivity in a number of processes such as receiving, inventory management, and checkout. Retail operators may unknowingly sabotage the productivity of their stores, however, by using barcoding systems that don't provide the functionality their operations require. Your business may have deployed a barcoding system with the goal of increasing productivity, only to discover through the inability to scan and produce labels efficiently, it often results in wasted time and resources.

There are several common challenges retailers face with barcoding systems, but the good news is there are strategies to overcome them. The e-book details five solutions to retail barcoding problems:

# ① Outdated Operating System

Although an operating system (OS) works "behind the scenes," it directly affects performance of your barcoding software. The wrong OS can negatively impact workflow by limiting functionality and the ability to customize your system. If your staff uses "workarounds" to navigate issues with devices and operating systems, then your OS may be hindering productivity and efficiency. If this is the case, then it's time to consider an upgrade. Two primary operating systems currently used in retail are Google Android and Microsoft Windows.



Android was created for smartphones and tablets, so many of your employees are already familiar with the interface. A higher comfort level means employees spend less time on training and navigating the system and more time providing great customer experiences.

Compared with Windows operating systems, Android wins as an open platform OS, which means developers have easy access to tools that allow them to create powerful applications for the retail industry. Android's flexible platform also makes it easy for IT departments to respond quickly to requests for new functionalities or applications.
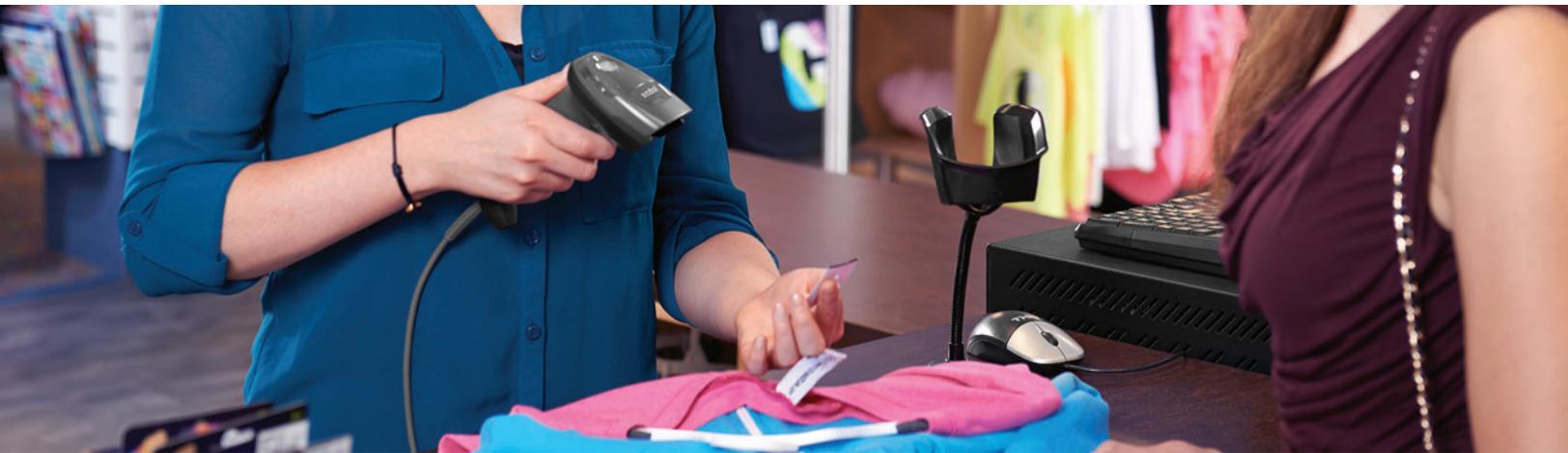
The Android OS is updated frequently, so its technology stays up-to-date. In the last few years, developers have added several upgrades that make it a solid choice for ruggedized devices, including remote wipe capabilities, encryption for enhanced security and application whitelisting/blacklisting. What's more, the Android OS increases productivity by 15 to 20 percent by virtue of the user and the user's familiarity with Android devices.

Even though Windows has a large developer base and a high level of familiarity, Windows OS is a closed platform, giving developers less flexibility to create applications. In fact, the cost of redesigning solutions compatible with Windows 10 is competitive with switching to Android.

Although Windows Mobile/CE/Embedded has been the platform of choice for ruggedized mobile computing, Windows Embedded Handheld 6.5's end of life is scheduled for 2020. This impending deadline has inspired people to consider options instead of automatically shifting to Windows 10 due to fewer features.

With an updated OS, you provide fully functioning, efficient barcoding systems that eliminate workarounds and help your team to work at maximum productivity.



## ② Limitations of 1D Barcode Scanners

If your retail operation is using 1D barcode scanners, your staff may encounter a large number of bad reads — or even lack the ability to read all the codes you need to. To overcome this challenge, consider upgrading to 2D imagers. Traditional linear or laser barcode 1D scanners can only read 1D barcodes, and they must be held at a certain angle and distance to read the barcode. Their limited functionality may mean employees are spending more time scanning each code and troubleshooting problems, slowing down checkout lines and decreasing inventory management efficiency.

2D imagers can scan any type of barcode on a variety of media, regardless of the code's condition. Imagers can read barcodes even if they are dirty, damaged, faded, under plastic, or are presented on a smartphone screen. 2D imagers work in any direction and have a larger scanning range, so sales associates, cashiers, and other retail staff can scan multiple barcodes at the same time and reach items stored up high without issue. Scanning items correctly on the first attempt helps your employees increase accuracy, work more efficiently and help lines — and merchandise — move faster.

In addition to reading barcodes and capturing images, signatures and documents, these handhelds support Optical Character Recognition (OCR), which reads characters and signatures on checks, passports, invoices and screens. 2D imagers also often have a longer battery life, so they spend less time in the charger and more time at work.



## ③ Barcode Printer Maintenance Issues

If your barcode printers are jamming, failing, and need ongoing maintenance, it can slow down your workflow and negatively impact receiving, order preparation, shipping, and in-store pickup. When printer problems are hampering your operations and your IT staff can't pinpoint the issue, it's time to reevaluate how your barcodes are printed. Declining efficiency is a sign of trouble and could cost your business money, so it's best to take barcode printing issues seriously.

**Make sure printers are up to the task**
Whether your operation requires thermal transfer or direct thermal printing, look for a printer model designed for commercial use, that can handle the volume of printing your operation requires. Printers work at varying speeds, so choose one that prints quickly enough to keep up with the workflow.

**Choose a printer built for use in harsh environments**

Choose a printer designed specifically for retail environments. A ruggedized printer can withstand exposure to dust, water, temperature changes, and accidental drops or bumps and keep performing without repair or maintenance.

**Buy quality supplies**

Quality supplies are critical to barcode printing efficiency and maximizing the lifespan of your printers, so don't skimp on ribbons or labels. Protect your technology investment by using print media and ribbons that are designed for use with your printer, otherwise you risk shortening the life of printheads and increasing the need for maintenance.

In addition to damaging your printers, labels that are not designed for your environment and applications open the door for damage and readability issues. Consider environmental factors that could degrade labels such as direct sunlight, temperature changes, or scratches and abrasions. Even the shape and composition of an item can limit your choice of label and adhesive.



## ④ Disparate IT Systems

You may be spending excessive time uploading data to different systems or applications or resorting to manual processes (and fixing the errors associated with them) because your IT systems aren't integrated. It is possible for barcoding applications to integrate with an enterprise resource management (ERP) system so labeling, inventory, receiving and point of sale (POS) systems communicate with each other and run smoothly. Integrated systems automatically share data from every source for analysis — breaking down silos and giving you greater insight into your operations.

Working with a total solutions provider will ensure cohesive systems and integration including software, hardware, supplies, and services. These companies take care of integrating your systems (barcode label management, POS, ERP, business applications), eliminating the need to upload or manually enter data from one system to another.

Developing a partnership with one solutions provider means you know exactly who to call when your IT systems need repair, when you need technical advice or training services, or when you have questions about your system's capabilities. Additionally, if you decide to scale, add functionality or upgrade the system in the future, the total solutions provider, who knows your system inside and out, can coordinate it for you without delay.

## ⑤ Lack of In-House IT Resources

No matter how experienced your IT staff is, they may find it difficult to keep up with all of the demands of keeping your systems running. Even if they are up to date on all of the latest hardware and software solutions you are using (or are considering for an upgrade), the demand for their services may exceed the hours they work each week.

When buying new hardware, it's important also to purchase a service contract. This ensures that a certified technician familiar with your particular solution will provide service on a regular basis, reducing downtime, extending the life of the hardware — and reducing the burden on in-house IT staff. You will get the greatest ROI from well-maintained equipment that contributes to your operation running at maximum efficiency.

# Overcome Challenges

If your operation is limited by a barcoding system that doesn't provide the functionality your retail business requires, it's time to evaluate the impact it is having on productivity and on the bottom line. State-of-the-art 2D barcoding hardware and software, as well as quality supplies and expert services from a knowledgeable solutions provider will ensure return on investment (ROI) through new efficiencies, time savings, decreased waste, and more satisfied customers.

Are you facing a challenge with the barcoding system used in your retail operation? iTEK is ready to help you pinpoint the problem and find a cost-effective solution. We have the expertise for customizable and cost effective solutions. Call us for a refresh of your current platforms or a new solution altogether.

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