WHITE PAPER

SELECTING THE RIGHT MOBILE DEVICE

ZEBRA

THE WORKFORCE MOBILITY REVOLUTION IS HERE. SET IN MOTION THE OPPORTUNITIES WHEN YOU SELECT THE RIGHT DEVICE.

Put simply, the mobile devices you choose will determine the return on investment (ROI) in your mobility strategy. The wrong device can frustrate users, decrease productivity, increase costs, and potentially introduce safety risks. The right device will maximize your opportunities for greater productivity, efficiency and accuracy with the tasks at hand.

3 DEVICE PLAN

When it comes to mobile device selection, there are three choices:

1 ENTERPRISE DEVICES

You can choose handheld mobile computers that are purpose built for specific work environments.

2 CONSUMER DEVICES

You can opt for less expensive consumer devices, such as smartphones.

3 "BRING YOUR OWN DEVICE" (BYOD)

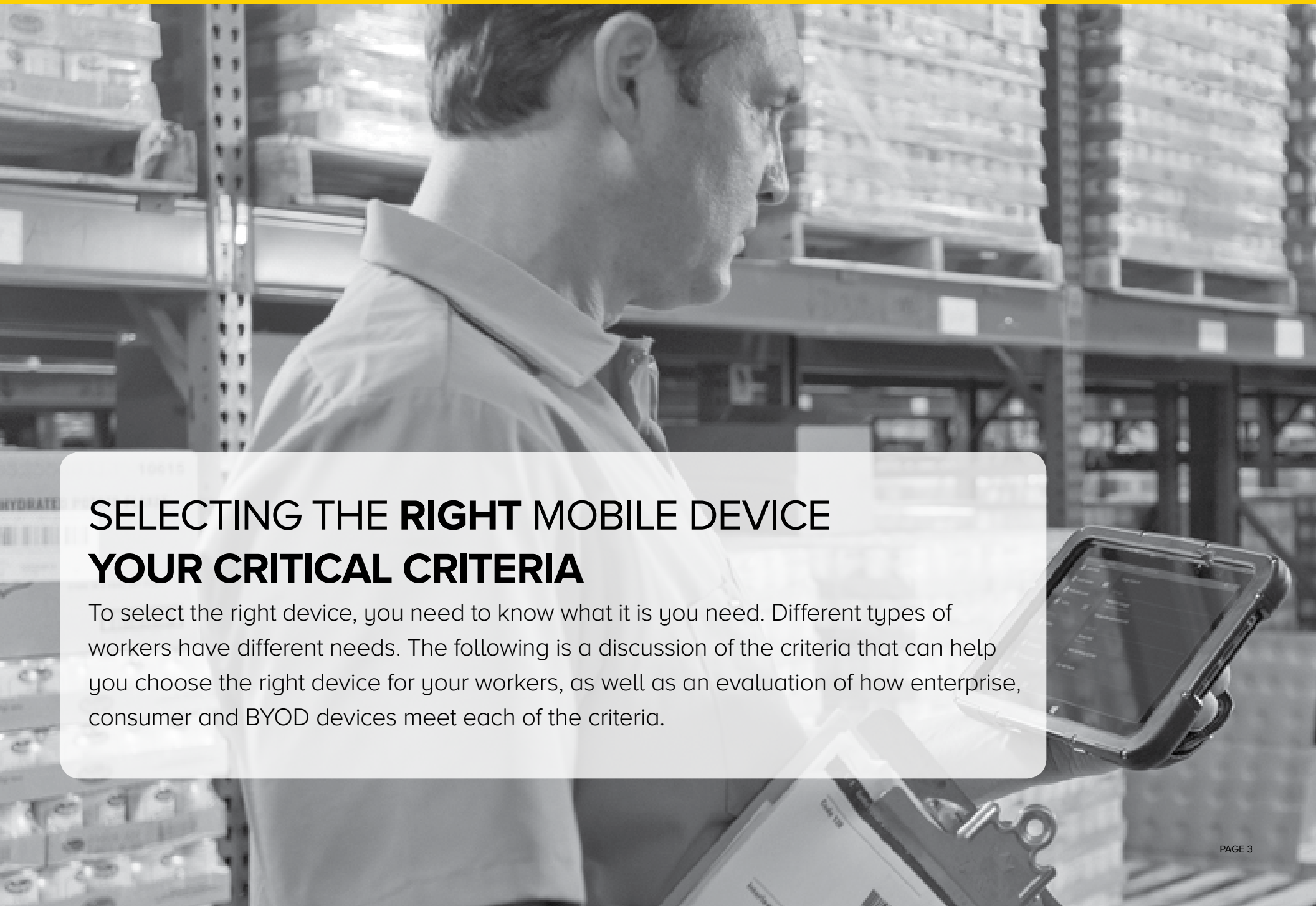
You can allow your associates to use their own smartphones and other mobile devices.

THE CLEAR WINNER: ENTERPRISE DEVICES.

At first glance, choosing consumer devices appears to be a viable low-cost solution, with BYOD further reducing costs by eliminating the need to purchase and support devices altogether.

The enterprise class device appears to be the most expensive solution. However, it is the enterprise class device that delivers the best value—it costs much less over the lifetime of the device, and is able to better meet business requirements.

This white paper will examine all three device options, their differences, and how those differences impact performance, productivity and cost.



SELECTING THE **RIGHT** MOBILE DEVICE

YOUR CRITICAL CRITERIA

To select the right device, you need to know what it is you need. Different types of workers have different needs. The following is a discussion of the criteria that can help you choose the right device for your workers, as well as an evaluation of how enterprise, consumer and BYOD devices meet each of the criteria.

SECURITY

THE ISSUE

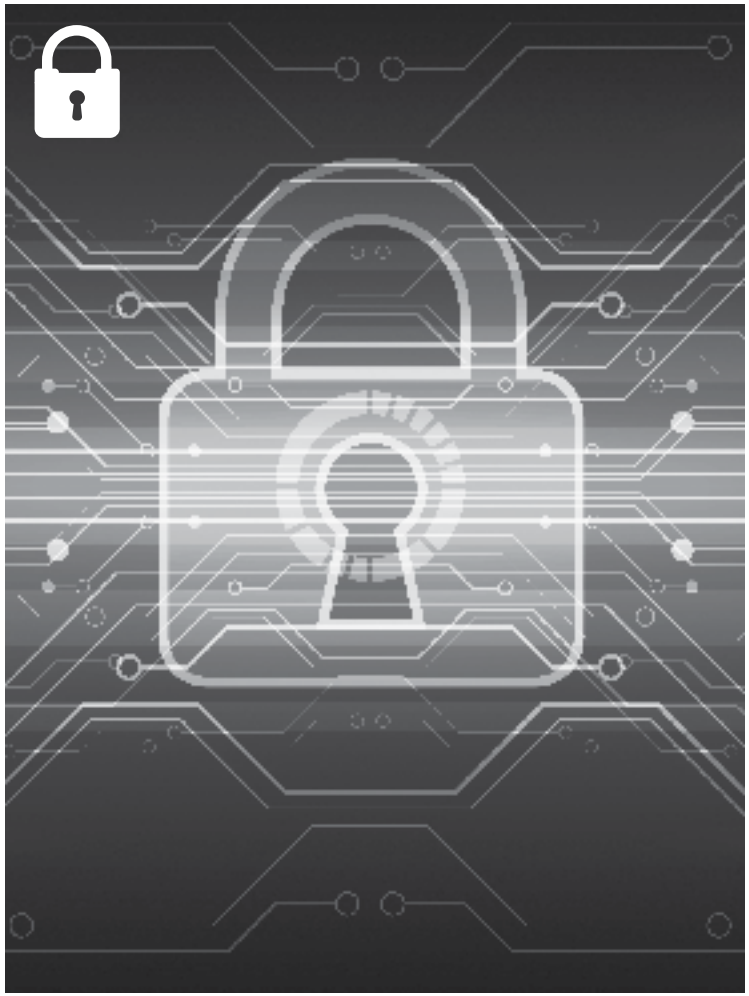
Security is a top concern for organizations. But if your people are carrying consumer grade mobile devices, their operating systems may not have the security features required to comply with your enterprise security standards, increasing the risk of a security breach.

THE SOLUTION

Enterprise class devices are designed to provide the required levels of security, where the typical consumer class device falls short. More than half of companies surveyed reported a security breach as a result of the use of a consumer device in the business.[5] And in BYOD programs, the majority of companies report that responsibility for security falls on the end-user—not acceptable for organizations that must comply with government regulations or face stiff penalties.[6]

Zebra goes a step beyond the typical enterprise class device security to bring organizations unparalleled protection. Our portfolio covers enterprise class devices running Android as well as typical operating systems. Android is being touted as the operating system that will reign in mobility solutions—and given that over 1.5 million Android phones are activated every day, it seems that this consumer grade operating system is well on its way to holding that position.[3]

However, while Android's open architecture is desirable for its elegant applications that take intuitiveness and ease of use to a new level, it does not provide the security that IT requires. But it is only the off-the-shelf standard Android operating system that falls short of delivering the security required. To address this issue, Zebra has developed Zebra's Mobility Extensions(Mx), which adds numerous security features to Android, allowing organizations to leverage the Android platform and still meet security requirements.



SECURITY

INTRODUCING MX
With Zebra Mx, Android-based devices can now provide the same level of security as Windows Mobile/Windows CE devices.

Zebra security features include:

- FIPS 140-2 government grade security rating to ensure HIPAA compliance.
- AES256 encryption for data in motion and data at rest—data is protected whether it is stored on the device, on a media card in the device, or traveling over the wireless LAN.
- Remote lock and wipe for lost or stolen devices.
- Automatic locking of idle devices.
- Application permissions, which prevent users from downloading unauthorized applications that could present security weaknesses or enable uploading of sensitive data to unauthorized servers.
- Multi-user log-on, which enables a single pool of devices to serve multiple workers, yet fully control what each worker can access via log-on credentials.
- The ability to prevent automatic OS updates from the cloud, ensuring that IT has full control over determining whether an OS upgrade meets requirements for security and application compatibility—as well as if and when the upgrade should be executed.
- The ability to restrict user and application access to hardware (such as the integrated camera, GPS and Bluetooth) as well as the built-in web browser or an email client.
- The ability to remove OS features which access servers outside of a network. For example, maps and email applications built into the consumer version of the Android communicate with the cloud and these connections pose a security breach risk.

The use of **consumer devices in the enterprise has caused a security breach in 55 percent of enterprises around the world.** The result? Survey respondents in every industry, every country and every size enterprise cite security is the number one risk associated with consumer device use in the enterprise.

Source: Avanade survey of 600+ IT decision makers, 2012

TRAINING

THE ISSUE

Workforce turnover in some industries can be high. If you choose consumer mobile devices, a specific model is typically updated within six to twelve months. This constant churn means your device pool will contain different versions of different models that may be running different operating system versions. And if you choose to implement BYOD, you are likely to be faced with a device pool so diverse it could include practically every smartphone that is available. In either scenario, the cost and time involved in training workers to use your mobility applications can skyrocket. There is the time spent creating training, the time it takes workers to complete a training course, as well as all the hours on the job during the training period when productivity will be lower.

THE SOLUTION

When you choose from Zebra enterprise class mobile device portfolio you get a guarantee that the device you purchase today will be available for a minimum of three years from the date the device arrived on the market. The result is a consistent device pool that substantially reduces the cost of training. You only need to develop one training course instead of multiple versions of the course for multiple versions of a device—one video, one Q&A, one training procedure. This device consistency also enables your existing workforce to help train new workers. Since all employees have the exact same device and apps behave the same way on all devices, co-workers can easily assist new associates with any questions.

With a three-year guarantee of device availability, you get the device consistency required to **drive training costs down**—instead of apps that behave differently on different versions of the same device. And less time spent training means more time available to get on with other essential tasks.

FULL-SHIFT BATTERY POWER

THE ISSUE

The mobile devices you choose often need to offer ample battery power, all day long. You don't want your people to run out of power at an inopportune time, nor do you want them to waste time managing power instead of doing their jobs.

To provide longer-life battery power, two things are required that consumer devices typically do not offer: A battery with the capacity to last and the ability to replace the battery. The typical consumer device battery is not designed for intensive workplace operation. When the battery runs low, if the batteries are not removable, the entire device must be charged. As a result:

- Productivity goes down since you are forced to spend time swapping devices.
- Costs increase as you are forced to: a) purchase two devices per worker to ensure that a second charged device is always on hand if required, b) purchase sleds that contain batteries that can power the mobile device, or c) purchase in-vehicle chargers, increasing the overall cost of your mobility solution.
- Return on investment (ROI) is slashed, since your devices must remain out of service for charging.

THE SOLUTION

By contrast, enterprise mobile device manufacturers recognize that continual operation is crucial to your business. That's why enterprise class mobile devices not only have high-capacity batteries capable of powering all the device features for a full shift, but also removable batteries. A fresh, fully-charged battery can be inserted into a device before work begins. The result? The enterprise class mobile device consistently stays in service, providing your workforce with dependable access to the information and capabilities they need to efficiently do their jobs, while substantially reducing the cost of mobility and maximizing the value of your mobile device investment.

For mobile devices to remain in service for a full shift, you need two things: **a battery with the capacity to last and a removable battery that can be swapped**—instead of taking the device out of service for charging.

BUSINESS CLASS POWER MANAGEMENT ACCESSORIES

THE ISSUE

Consumer grade mobile devices are created for the individual and are generally single-user oriented. As such, they typically do not offer the type of accessories that will be required in the enterprise. Similarly, few accessories offer enterprise class durability.

THE SOLUTION

Enterprise class devices offer purpose built accessories that simplify and reduce the cost of backroom management. For example, consumer class devices generally require one charger per device and each charger requires its own outlet. By contrast, enterprise class devices offer multislot chargers that typically allow you to use one outlet to charge at least four devices or four batteries simultaneously. As a result, the enterprise class device requires only a quarter of the outlets that consumer devices will require. And since a four slot multi-slot charger commonly takes up less space than four individual chargers, you'll need less space to support your devices.

In addition, unlike consumer accessories, enterprise accessories are built to business grade specifications, such as the number of insertions a cradle can handle before contacts wear out. By contrast, consumer charging accessories—including sleds—typically do not offer an insertion rating.

Without business-class accessories, backroom infrastructure costs can soar and around-the-clock use may wear out the accessories before the device. In addition, you may need to purchase new cradles, chargers or vehicle mount holders every year as consumer device models change, which may also trigger the need to modify the backroom design.

When you choose from the Zebra portfolio of enterprise class mobile devices you also get device diversity. You can choose the best device for different types of workers—handheld mobile computers, smartphone-style devices, tablets, and badges—all complete with enterprise class accessories.

Mobile device power management accessories **should be built to business** grade specifications, such as insertion ratings, as well as for space and cost efficiency in the backroom.

MC40 Single Slot Cradle

MC40 4-Slot "Toaster" Battery Charger

MC40 5-Slot Device Charger

ET50/55 Rugged Frame

WIRELESS NETWORK CONNECTIVITY

THE ISSUE

The value of the mobile device in the hands of your workers is heavily dependent upon the quality of the wireless connection. They need rock solid wireless connectivity, whether they are inside the four walls or connected to the cellular network in the field. Wireless data keeps your workforce connected with the critical information they need to do their job efficiently. With voice-over-WLAN services, they can also take calls and reach co-workers and managers with the press of a button.

But when it comes to wireless connectivity, consumer class devices fall short in performance and flexibility. Often they are cellular network-specific devices that cannot be used on a different network and come with the purchase of a pricey monthly voice and data plan.

Consumer class Wi-Fi radios also lack the power to maintain a strong wireless connection, as well as the features required to enable seamless roaming. The result? Slow screen refresh rates, poor application performance and the need to constantly reconnect to the network—situations that impact the productivity and the effectiveness of your workers.

THE SOLUTION

Enterprise class Wi-Fi radios are purpose built to provide on-the-move workers with a constant high-quality connection. Typical features include:

- **Enterprise class higher-powered radios** that provide stronger, more robust wireless connections.
- **Seamless roaming** that ensures devices roam to the next access point before the connection drops or performance erodes.
- **Support for 802.11a**, which aids 5 GHz devices and helps improve Wi-Fi network capacity, speed, and quality of service by offering more channels, more bandwidth, and less interference.
- **Enterprise class 5 GHz Wi-Fi that requires fewer access points compared to consumer devices**—reducing the cost, complexity, and management time of your WLAN.

All Wi-Fi radios are not created equally. **Wi-Fi radios in enterprise class devices are designed to maintain connectivity and application performance for workers who are constantly moving**—something the typical consumer class radio doesn't offer.

ENTERPRISE SCANNING PERFORMANCE

THE ISSUE

One of the most important features of any mobile device is bar code scanning. This enables a whole host of data capture activities. But the bar code scanners in consumer class devices are not designed for intensive scanning nor are they equipped to scan damaged or poorly printed bar codes or bar codes under shrink wrap.

THE SOLUTION

Enterprise mobile devices offer integrated high performance bar code scanning that is in a completely separate class from the scanning capabilities of consumer class devices. For example, Zebra's mobile devices offer dedicated scan engines that can capture virtually any bar code in any condition—1D or 2D, regardless of whether it is damaged, scratched, dirty or poorly printed. Tests performed by Scandit* reveal that Zebra's SE4500 scan engine captures bar codes 20 to 50 times faster than consumer mobile devices.

And where consumer devices returned an erroneous bar code read as much as 10 percent of the time, the Zebra scan engine mis-decode rate was negligible, at just 0.005 percent.

A lack of industrial class bar code scanning can have a major impact on the productivity of your workforce (although this drain is often well-hidden and unaccounted for in TCO analyses). For example, slow read times can turn into hours of wasted time and frustrated workers.

THE NUMBERS

If a worker scans just 50 bar codes per hour over an eight-hour shift, that translates into 400 bar codes/shift. At a conservative two seconds a scan, those 400 bar codes will take a total of 800 seconds or 13.3 minutes per shift. While that seems like an inconsequential number, for people that may work five eight-hour shifts each week, that translates into an additional 55 hours per year, per person—the equivalent to 7 additional shifts.

If the mobile device you choose lacks industrial class bar code scanning, the result can be a major impact on the productivity of your people—**though this drain is often well-hidden and unaccounted for in typical TCO analyses.**

SCANNING THROUGHPUT: CONSUMER VS. ENTERPRISE

FEATURE	SCANNING APPLICATION ON CONSUMER DEVICE	ZEBRA MOBILE COMPUTER WITH SE4500 SCANNER
Omni-directional	Often < 30 degrees[1]	360 degrees[2]
Decode Time	2-5 seconds[3]	Typical < 100ms[2]
No Read	2%-30%[3]	Typical < 1%[2]
Mis-decode rate on UPC A	0.5%-10%[3]	Typical < 0.005%[2]

* Source: Scandit Scanning Performance: http://www.scandit.com/barcodescanner-sdk/features/performance/

1 – Zebra test 2– Zebra specification 3 – Scandit

IMPACT ON WORKER PRODUCTIVITY

ENTERPRISE VS. CONSUMER GRADE SCANNING TECHNOLOGY		
Scan Time	100ms	2 seconds
Scans per 8 hour shift (50 scans per hour)	400	400
Total scan time per shift	40 seconds (0.66 minutes)	800 seconds (13.3 minutes)
Total scan time per associate per year (scan time per shift x 260 shifts per year per associate)	171.60 minutes (2.86 hours)	3,458 minutes

For employees that work five eight-hour shifts per week, enterprise scanning performance can recoup about 55 hours a year—nearly seven additional shifts per year per employee.

DURABILITY

THE ISSUE

Inevitably, the mobile device your workers use will be subjected to drops and spills, possibly every time they work. Plus, in some applications the device may be exposed to inclement weather, including rain, snow, and extreme temperatures. As a result, durability should be a key criterion—without it, devices will require frequent repair and replacement.

THE SOLUTION

The device you choose should offer specifications that ensure the level of durability required in a demanding environment, such as:

- **A drop specification:** The drop test ensures that the device can handle a free-fall from a specific height to a specific type of floor (such as tile or concrete).
- **A tumble specification:** This ensures that the device can endure the multiple hits that occur when a dropped device tumbles before coming to a rest.
- **Ingress Protection (IP) sealing:** A worldwide standard, IP sealing rating ensures reliable operation, even when exposed to a liquid spill and dust. Ratings vary from the ability to handle water drops, splashing, and even complete immersion in water, as well as dust-resistant to completely dust-proof.

Consumer devices rarely offer all of these specifications. As a result, they are much more fragile than their enterprise counterparts, which typically offer these specifications to ensure that the device can provide the lifecycle and the enterprise TCO your organization requires.

The numbers are in—the cost of the high failure rate of consumer class devices **easily justifies the cost of a rugged device.**

THE PROOF

A recent study by VDC Research Group[8] validates the value of choosing an enterprise class device over a consumer device.

Consumer devices are three times more likely to fail in the first year. The average first year failure rate for rugged devices is 7 percent, compared with the 23 percent for consumer devices—and consumer device failure rates in excess of 50 percent are not uncommon. The cause of 77 percent of those failures was a dropped device, which resulted most commonly in a cracked display. The cost of all those failures is high—not only does the device require repair or replacement, but every failure can result in 180 to 260 minutes in lost mobile worker productivity and additional internal support. The cost of just one or two instances of device failure can easily justify the additional cost of a rugged device.

MANAGEABILITY

THE ISSUE

Centralized management is a must-have for mobile devices. Without it, IT must physically touch a device for everything from preparation for use to troubleshooting and resolving device issues.

Consumer grade devices generally do not support industry-standard enterprise class mobile device management (MDM) solutions, translating into phenomenal support costs. And those costs can rise substantially with BYOD initiatives—especially when you factor in the number of applications and the need to keep all of those applications up to date on every single mobile device.

If your IT department is unable to monitor and troubleshoot BYODs from an MDM application, you have two choices:

1. Your employees can bring devices to your IT help desk, which means help desk personnel will be responsible for learning about potentially hundreds of models—models that change regularly.

2. Your employees become responsible for figuring out where to get support, resulting in lost productivity, time available to assist colleagues or customers, and lost control over the support process.

THE SOLUTION

Alternatively, today's enterprise class mobile devices do support centralized Mobile Device Management (MDM) solutions. These enable IT to remotely stage, update, monitor, troubleshoot, lock, and wipe devices—no matter where they may be. In addition, IT can receive alerts and alarms that signal the start of a device issue before the user is impacted. This allows for a proactive response that can eliminate device downtime and the resulting hit on user productivity. IT can better manage your mobile devices, with very little dedicated time required.

Zebra takes mobile device management a step further with our enterprise class Mx Android-based devices. While the standard version of Android does not support MDM, our Mx Android offers enterprise class management. As a result, your IT department can manage all Zebra mobile devices from one place, bringing enterprise class management to a consumer grade operating system.

According to VDC Research, the result can be a staggering reduction in support costs: "Effective use of device management solutions—for remote diagnostics, software upgrades, etc.—can reduce the average annual support costs per mobile worker by as much as 85%."[9]

If the mobile device you choose can't support your mobile device remote management solution, **support costs per mobile worker can increase by as much as 85 percent.**[9]

VOICE COMMUNICATIONS FLEXIBILITY

THE ISSUE

When it comes to enabling your workers, mobile voice is just as important as data. Without it, you may need to provide workers with more than one device to enable different types of voice capabilities.

THE SOLUTION

To create the true all-in-one voice and data mobile device, we developed Zebra's Workforce Connect Voice Solution. Unique in the industry, this solution allows you to easily add the voice features different workgroups need on our mobile devices. And since all services are delivered over the Wi-Fi network, there are never any monthly fees. In addition,

with Workforce Connect PTT Pro you can be sure the voice services you deploy will work on the technologies you have—including mobile devices, wireless LAN infrastructure and PBXs.

Zebra's Enterprise Voice Solution means your workers never need to hunt for a handset. They also mean there is never a need for you to purchase an additional device for workers to carry, such as a walkie-talkie. Instead, your workers get pure simplicity from a single device that can do it all.

Key voice features. With our complimentary Push-to-Talk Express client software (preinstalled on most Zebra devices), you can enable push-to-talk (PTT) between different types of Zebra devices, right out of the box. In addition, you can turn our mobile computers into deskphones, complete with an extension number and PBX time-saving features such as call forwarding and 3-way calling.

The result? You can eliminate the cost of separate desk phones and simplify life for your workers, who no longer need two separate devices for voice and data. You also get more value out of your existing PBX. Since all services are delivered over the Wi-Fi network there are never any monthly fees. And with our Validated Voice Solution, you can be assured that the voice services you deploy will work on the technologies you have—including mobile devices, wireless LAN infrastructure, and PBXs.

Mobile voice can be just as crucial as mobile data. Enterprise mobile devices can support everything from instant push-to-talk to the ability to double as a mobile deskphone—features that not only maximize the value of your mobile device investments, but also eliminate the need for staff to carry multiple devices.

LIFECYCLE MANAGEMENT

THE ISSUE

The rate of device churn—when new devices are released and their older versions are retired—is another item that should be high on the list of considerations, yet is often overlooked because of the hidden costs.

In the world of consumer mobile devices there is rapid churn of devices. Twelve months is typically the maximum time a specific model is available, with no guarantees that the next model provides backwards compatibility for accessories and applications.

THE SOLUTION

In contrast, for enterprise mobile device manufacturers, device churn is measured in years instead of months. For example, Zebra's mobile devices are not only built to last for a minimum of three years. They are also guaranteed to be available for purchase for a minimum of three years, with an additional three years of support once the device has been discontinued.

Enterprise class device lifecycle is measured in years...
and consumer class device lifecycle is measured in months.

Since enterprise mobile device manufacturers are focused on business instead of consumer needs, when a next generation device is released, you can typically count on backward compatibility with everything from applications to accessories—such as charging cradles, batteries and cables. This strategy allows you to upgrade to next generation mobile computing technology, while preserving as many of your existing investments as possible.

Unlike with consumer grade mobile devices, when you choose an enterprise class mobile device there is typically no need to purchase new accessories, further reducing capital costs and TCO. If the device you choose has a platform strategy—like Zebra's entire portfolio of mobile computers—applications can be ported to the new devices with little or no development effort, reducing operational costs.

Consumer mobile devices are typically available for purchase for only one year. As a result, when you add new workers or need to replace broken devices, **you can end up with many different models to support, each with their own unique accessories**—driving capital and operational costs up.

SUPPORT SERVICES

THE ISSUE

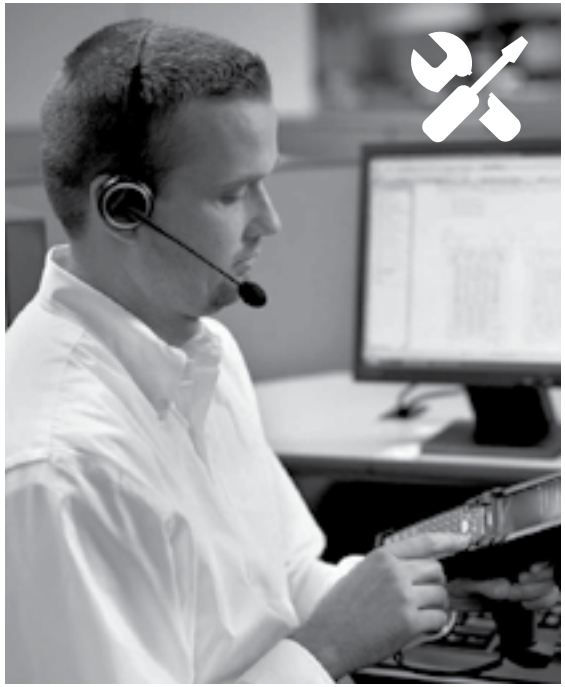
What happens when a device needs repair? Can you get the same level of service for enterprise and consumer mobile devices? With consumer grade mobile device support services, workers may be without a device for days. And when the device is returned, the worker will need to restore all the data. The result is a level of device downtime that degrades TCO and worker productivity. Yet there is no real alternative. Since there are so many different types of consumer models and they change regularly, keeping a spares pool on hand isn't feasible.

THE SOLUTION

Enterprise mobile device manufacturers understand that device downtime is not an option—and that fact is reflected in their support programs. For example, Zebra offers cost-effective business grade support programs that cover everything from normal wear and tear to accidental breakage, including a broken screen on a device that was dropped.

No matter what the problem is or what caused it, you are covered—no questions asked. Additional options include overnight replacement with a mobile device that has already been provisioned with your software applications and device settings. That way workers are back up and running the moment the device is removed from the box.

Mobility Lifecycle Management Services
Our Mobility Lifecycle Management services allow you to offload management to those who best know your devices—the manufacturer. Zebra can handle every phase of deployment: Plan, Implement, and Run. We can architect your solution, ensuring integration with your environment and the design that will maximize mobile device performance. Once the design is complete, we can implement your solution—from configuring and preparing devices for use to integrating your applications. And once your solution is up and running, we can manage and monitor your devices and guarantee uptime.



Your workers will depend on their mobile devices to do their jobs efficiently and effectively. You need to keep your devices up, running and in the hands of your workforce. That requires a support plan that will cover every service need, including overnight replacement of broken devices—**a level of service you won't find for the typical consumer smartphone.**

THE MATH

THE TRUTH IS IN THE NUMBERS—CONSUMER CLASS DEVICES COME AT A PREMIUM

While at first glance they may appear to be a lower cost approach, the numbers show otherwise. Consumer grade mobile devices and BYOD programs aren't always the most successful enterprise mobility solution. Consider the following facts:

CONSUMER CLASS DEVICE TCO IS SUBSTANTIALLY HIGHER.

Consumer grade devices cost an average of 50% more over a five-year period: The annual five-year TCO for a small consumer grade device is more than 50% higher than its enterprise grade counterparts. The annual five-year TCO of an enterprise grade device is $2,140, while the consumer grade device costs $3,236 over the same time period.[10]

CONSUMER CLASS DEVICE ACQUISITION COSTS ARE THE SAME—OR HIGHER

To compare consumer vs. enterprise class hardware costs accurately, you will need to factor in lifecycles. Enterprise class devices are built to last three to five years, while consumer device life expectancy is just one to two years. So, while that consumer grade mobile device appears to be less expensive, be sure to factor in that for one enterprise class mobile computer, you'll likely need to purchase two to three consumer mobile devices and two to three sleds over the same period.

The result? Hardware acquisition costs over three to five years for enterprise class are lower than for consumer grade mobile devices. Based on list pricing of some of today's most popular products, a sled is approximately $600 and a consumer-style data mobile device roughly $250. The cost for one enterprise class device is approximately $1,500, which can operate for an average of three years or more. In the best use case scenario, you would need to replace a consumer-style device and sled twice over a three-year period for a total hardware cost of $1,700—13 percent more than the cost of an enterprise class device. The more common scenario due to lack of rugged design is annual replacement of consumer devices and sleds, for a total of $2,550 over three years—70 percent more than the cost of a rugged device.

33% THE AMOUNT THAT CONSUMER CLASS BYOD CAN INCREASE YOUR SUPPORT COSTS

Aberdeen Group reported that a company with 1,000 mobile devices can expect to spend an average of an extra $170,000 per year to support BYOD. The following five well-hidden costs can result in a 33% increase in operational costs for BYOD initiatives:

1. Carrier billing is no longer aggregated, which can result in missed discount opportunities and larger monthly fees
2. Increase in IT time to manage and secure corporate data on employee devices
3. Increase in support costs due to the increase in types of mobile devices and their durability levels
4. Increase in the workload for other operational groups that are not normally impacted by mobility support
5. Increase in the number of expense reports filed by employees for reimbursement of device-related expenses

Choose from a wider selection of enterprise grade devices at
www.zebra.com/mobilecomputers

1. Customer Experience as the Final Retail Frontier: Mitigating Price Factors by Delivering What Consumers Really Want in the In-Store and Online Experience; Mark Marone, PhD; AchieveGlobal, 2013
2. 2012 Global Customer Service Barometer; Findings in the U.S.; American Express; Prepared by Echo, 2012
3. 10th Annual Store Systems Study 2013; Retail Technology Spend Trends; Mobility Changes Everything; Retail Info Systems News (RIS); January 2013
4. 2014 7th Annual Shopping Study; Motorola Solutions; February 2014; North America
5. Avanade survey of 600+ IT decision makers, 2012
6. Source: ITIC Survey 500 companies, July-Aug. 2012; BYOD Support Points.pptx: Slide 12
7. Source: Google activating 1.5m Android devices per day, keeping steady growth in 2013; Jake Smith, April 17, 2013; http://www.pocket-lint.com/news/120512-google-activating-1-5m-android-devices-per-daykeeping steady-growth-in-2013
8. Mobile Device TCO Models for Line of Business Solutions; Volume 1/Track 7: Enterprise Mobility Mobile Device TCO; David Krebs; VDC Research Group, Inc.; 2012 (Slides 4, 18, 28 and 29)
9. VDC Research, White Paper—Enterprise Digital Assistant Leverage in the Emerging Mobile Enterprise; David Krebs/Chris Rezendes; Jan. 2010
10. Mobile Device TCO Models for Line of Business Solutions; Volume 1/Track 7: Enterprise Mobile Device TCO; VDC Research

ZEBRA