

# CONSUMER VS. ENTERPRISE: SELECTING THE RIGHT MOBILE DEVICE FOR YOUR RETAIL STORE

# THE SUCCESS OF YOUR RETAIL MOBILITY SOLUTION IS TIGHTLY TIED TO THE MOBILE DEVICE YOU SELECT.

Even though today's shoppers can access virtually every online retailer that sells the items they seek to buy with a few keystrokes, the majority of today's consumers still prefer to purchase items in the brick-and-mortar store.<sup>1</sup> But just because a customer walks into your store doesn't mean you have the sale. Today's customers comparison shop and check your competitors for pricing and availability, right in the aisles of your store on their smartphones. Winning the sale is heavily dependent upon one thing: the level of customer service your associates can provide. Service is so important that two thirds of today's shoppers are even willing to pay as much as 20 percent more at retailers that provide truly excellent service.<sup>2</sup>

In order to deliver that level of service, retailers are turning to mobile devices — outfitting associates with mobile devices is the number one initiative in retail stores.<sup>3</sup> The trend is further fueled by shopper opinion: the majority of today's shoppers feel that handheld mobile computers help associates take service in the store to a new level — the kind of service that results in more sales, more satisfied customers and more repeat visits.<sup>4</sup> The most important factor that will contribute to the success of associate mobility is the selection of the mobile device. The wrong device can frustrate users, decrease productivity, increase costs and potentially introduce safety risks. The right device will help maximize the success of your retail mobility deployment by maximizing workforce productivity, task accuracy and return on investment (ROI).

## 3 DEVICE PATHS

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

### 1 ENTERPRISE DEVICES

You can choose enterprise handheld mobile computers that are purpose built for retail environments.

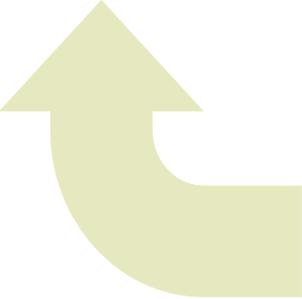
### 2 CONSUMER DEVICES

You can choose less expensive consumer devices, such as smartphones.

### 3 "BRING YOUR OWN DEVICE" (BYOD)

You can allow your associates to simply use their own consumer 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 retail requirements. This white paper will reveal why by examining all three device options, their differences and how those differences impact performance, productivity and cost.



## **SELECTING THE RIGHT MOBILE DEVICE CRITICAL CRITERIA FOR THE RETAILER**

In order to select the right device, you need to make sure you have the right criteria. You need to meet a wide variety of needs for different types of workers — from associates in the front of the store responsible for the direct delivery of customer service to managers who need to stay on top of everything happening in the store, regardless of where they may be. 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 criteria.

## THE ISSUE

Security is a top concern for retail organizations, which must comply with PCI regulations that protect shoppers' personal and payment card information. With so many recent breaches at top-name brand retailers, payment card security is a major concern for retailers and shoppers. But if your associates are carrying consumer-grade mobile devices, consumer-grade operating systems do not have the security features required to comply with PCI standards, increasing the risk of a security breach, brand damage and lost shoppers.

## THE SOLUTION

Enterprise class devices are designed to provide the required levels of security, where the typical consumer class device falls short. In fact, more than half of the companies surveyed reported a security breach as a result of the use of a consumer device in

the business.<sup>5</sup> And in BYOD programs, the majority of companies report that responsibility for security falls to the end-user — not acceptable for organizations that must comply with government regulations or face stiff penalties.<sup>6</sup>

Motorola Solutions enterprise class retail mobile computers address device security several ways: by providing all the necessary security protocols on the mobile devices themselves, as well as offering features that help prevent the theft of retail mobile devices that can be utilized to access the sensitive payment card data stored in your systems.

### Comprehensive security features ensure PCI compliance

When you choose Motorola Solutions retail mobile devices, you choose a full complement of security features that protects your shoppers' payment card data around the clock, including:

- FIPS 140-2 government grade security.
- 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 the installation of 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 the retail network, such as maps and email applications built into the consumer version of Android that communicate with the cloud. These connections pose a high security breach risk, since sensitive payment card data — including PIN numbers — contained in retail backend applications is exposed outside of the retail store.



**True enterprise class Android for more freedom of device choice**

Motorola Solutions goes a step beyond the typical enterprise class device security to bring retailers the unparalleled security they require in a portfolio that provides an industry first — enterprise class devices running the Android operating system as well as typical enterprise class operating systems, such as Windows Embedded Handheld. Android is being touted as the operating system (OS) that will reign in mobility solutions — and given that over 1.5 million Android phones are activated every day, it seems that the consumer grade operating system is well on its way to holding that position.<sup>7</sup> Retailers find Android's open architecture very desirable for its elegant applications that take intuitiveness and ease of use to a new level — however, consumer Android does not provide the security that retailers require. The good news is that it is only the off-the-shelf standard Android operating system that falls short of delivering the security required in the retail store. To enable retailers to utilize this powerful and flexible operating system, Motorola Solutions developed Motorola Extensions (Mx), which adds the security

features Android needs to allow retailers to leverage this desirable platform — yet still meet the extremely stringent security requirements in the store. With Mx, Motorola's Android-based devices can offer the same level of security as our Windows Mobile/Windows CE devices, allowing you to confidently deploy Android in your environment.

**Protection against device theft**

One of the major issues with deploying consumer-style mobile devices, such as smartphones and tablets, is that they are extremely desirable. Employees are tempted to take them — and a device left on a shelf for a few moments tempts your shoppers. Our enterprise class retail mobile devices help eliminate theft with centralized management and locationing technologies that allow IT to monitor the location of all of your mobile computers in the store. You can even set up a geofence to alert you immediately to any devices that are leaving the store premises. The result? Your devices are safer — and there is no need to purchase a separate layer of theft deterrent equipment or spend time developing practices and processes to help prevent device theft.

**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

In retail, workforce turnover is typically high. In addition, there are seasonal peaks that require the hiring of a temporary workforce, as well as students who leave your workforce at the end of the summer, creating the need to hire replacements every fall. If you choose consumer-style 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 as well. And if you choose to implement BYOD, you will likely be faced with a device pool so diverse it could include practically every smartphone that is available. As a result, 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 where productivity will likely be lower.

### THE SOLUTION

When you choose Motorola Solutions enterprise class retail mobile device portfolio, you get a guarantee that the exact 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. The device consistency also enables your existing workforce to help train new workers. Since all employees have the exact same device and the app can behave exactly the same way on all devices, co-workers can easily assist new associates with application questions and procedures.

**With a three-year guarantee of device availability, you get the device consistency required to drive training costs down — instead of an app that behaves differently on different versions of the same device. And less time spent training on-the-job means more time available to help your shoppers, improving customer service and satisfaction.**

## FULL-SHIFT BATTERY POWER

### THE ISSUE

The mobile device you choose must offer ample battery power, all shift long. You don't want the mobile devices that are providing your associates with the capabilities they need to deliver excellent service to run out of power at an inopportune time, nor do you want your associates and managers to spend time managing power and changing batteries instead of taking care of customers.

In order to provide full-shift battery power, two things are required that consumer devices typically do not offer: a battery with the capacity to last a full shift and the ability to replace the battery. The typical consumer device battery will not last a full shift, especially since the device will be in constant use during a shift. When the battery runs low, if the batteries are not removable, the entire device must be charged. As a result:

- Productivity is reduced since workers are forced to spend time swapping devices mid-shift.

- Costs increase as retailers are forced to either:
  - a) purchase two devices per worker to ensure that a second charged device is always on hand if required or
  - b) purchase sleds that contain batteries that can power the mobile device.
- Return on investment (ROI) is reduced, since devices must remain out of service for charging.

### THE SOLUTION

By contrast, enterprise mobile device manufacturers recognize that continual operation is crucial in retail. 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 at the start of every shift. The result? The enterprise class mobile device remains in service all shift, every shift, providing the retail workforce with dependable access to the information and capabilities they need to deliver the very best in service, while substantially reducing the cost of mobility and maximizing the value of your mobile device investment.



**In order for mobile devices to remain in service for a full shift, you need two things: a battery with the capacity to last a full shift and a removable battery than 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, nor do the 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 multi-slot chargers that allow you to use one outlet to typically 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 each shift.

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, if you choose company-owned consumer class mobile devices, backroom infrastructure costs can soar. Without industrial design, all day around-the-clock use may wear out the accessories before the device. In addition, you may need to purchase new cradles and chargers every year as consumer device models change, which may also trigger the need to modify the back room design.

And when you choose Motorola Solutions retail portfolio of enterprise class mobile devices, you 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 back room.**



MC40 Payment Card Reader



MC40 4-Slot "Toaster" Battery Charger



MC40 5-Slot Device Charger



ET1 Payment Card Reader

## WIRELESS NETWORK CONNECTIVITY

### THE ISSUE

The value of the mobile device in the hands of your mobile retail workers is heavily dependent upon the quality of the wireless connection. The wireless device in the hands of your associates and managers needs to offer rock solid wireless connectivity — period. Wireless data keeps your workforce connected to inventory and product information, and enables on-the-spot processing of a payment or return. And with your Voice-over-WLAN services, associates can take calls from customers and reach co-workers and managers in the store with the press of a button.

But consumer class Wi-Fi radios lack the power to maintain a strong wireless connection, as well as the features required to enable seamless roaming. The result? Slow screen re-refresh rates, poor application performance and the need to constantly re-connect to the network — situations that impact the quality of the customer service your associates can deliver, the productivity of your associates and the effectiveness of your managers.

### 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 supports 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.** All 5 GHz technology is not created equally. A consumer class smartphone may support 5 GHz, but in order for your workers and associates alike to utilize those devices on your WLAN, you may need more access points. In fact, Gartner reports that 5 GHz tablets from one of today's leading manufacturers will require 300 percent more access points — adding cost, complexity and management time to your WLAN.

**The quality of your associates' wireless connections are tied directly to shopper satisfaction and worker productivity. But 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

In the retail store, one of the most important features of any mobile device is bar code scanning. It is bar code scanning that will allow associates to check price, stock, related items and more in seconds, as well as scan shopper loyalty cards and items to complete a purchase anywhere in the store. But the bar code scanners in consumer class devices are not designed for the intensive scanning inside a retail store — nor are they equipped to scan damaged or poorly printed bar codes or bar codes under shrinkwrap.

### 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, Motorola's retail mobile devices offer dedicated scan engines that can capture virtually any bar code in any condition — 1D

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

or 2D, regardless of whether it is damaged, scratched, dirty or poorly printed. Tests performed by Scandit\* reveal that Motorola'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 Motorola 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 retail workforce — and an even greater impact on customer satisfaction — though 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. Let's take a look at the math.

### THE NUMBERS

If an associate scans just 50 bar codes per hour over an 8 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/13.3 minutes per shift. While that seems like an inconsequential number, for associates that work five eight-hour shifts each week, that translates into an additional 55 hours per year per associate — the equivalent to 7 additional shifts per associate.

### SCANNING THROUGHPUT: CONSUMER VS. ENTERPRISE

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

\* Source: Scandit Scanning Performance: <http://www.scandit.com/barcode-scanner-sdk/features/performance/>  
 1 – Motorola Solutions test 2 – Motorola Solutions specification 3 – Scandit

### IMPACT ON ASSOCIATE 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 (57.6 hours)

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

## MOBILE POINT OF SALE (MPOS)

### THE ISSUE

The Mobile Point of Sale (MPOS) is here to stay, with 55 percent of all retailers predicted to have deployed mobile POS by the end of 2015.<sup>3</sup> What is driving the movement toward MPOS? In the retail store, last impressions are just as important as first impressions — and the POS is the last touchpoint with your customer. With MPOS in your store, shoppers never need to wait in line to make a purchase — your associates can complete a purchase anywhere in the store with their mobile device. The result? Stronger sales — associates can ring up purchases before a customer changes their mind or walks out due to long lines at the checkout stand.

While you can easily add a payment card sled to a consumer mobile device to process payment, consumer class payment processing sleds can have a major impact on overall solution cost, ergonomics and durability. In order to make the best buying decision, you'll need to examine the numerous potential pitfalls related to sleds and other types of payment card accessories:

- A payment sled dramatically changes the ergonomics of the mobile device — size and balance are impacted, along with user comfort.
- Sleds can significantly increase device acquisition costs because:
  - The sled typically costs two to three times the cost of the consumer mobile device, bringing the acquisition cost on par with that of an enterprise device.

- When you need to purchase a replacement mobile device, you will most likely need to also purchase a new sled — sleds are typically designed for a specific model and are often not compatible with the next generation device.
- Our own internal testing on one of the most-used third party sleds revealed a lack of durability and sealing, which will increase the failure rate, likely translating into the purchase of multiple sleds over the course of the lifespan of a mobile device. Our research found:
  - **Lack of sealing.** The low sealing rating did not provide any protection against liquids entering the device.
  - **Lack of durability.** While the sled did have a drop specification, the consumer mobile device it was attached to did not. We attempted to perform a minimal drop test by dropping the device with the sled attached six times on each of the six sides but were unable to complete the test due to catastrophic damage to the mobile device — on the third four-foot drop to concrete, the display on the mobile device shattered and the sled dislodged from the device.
- **Impaired Wi-Fi performance.** Antennas in consumer devices are not designed to handle the interference created by the sled. The electronics in the sled can interfere with the antenna, and the sled itself might block the area where the antenna is located. As a result, the Wi-Fi antenna will likely be impaired, degrading wireless performance.

**Payment card sleds can impact mobile device ergonomics and economics — sleds often cost two to three times that of the consumer mobile device, making total acquisition cost on par with the typical enterprise class device.**

### THE SOLUTION

All the issues associated with adding a third party sled for scanning can be eliminated by choosing an enterprise class device that offers either integrated payment card processing or industrial payment card processing accessories that are purpose built for a specific device. Motorola offers snap-on payment card readers that offer:

- The enterprise security protects shopper payment card information
- The rugged design that delivers an enterprise class lifecycle and total cost of ownership — including enterprise durability specifications for impact (drop and tumble) as well as the number of insertions
- A design that maintains the host device ergonomics when the snap-on payment card reader is attached, ensuring all day comfort for your workers.

## DURABILITY

### THE ISSUE

Inevitably, the mobile device your retail workers use will be subjected to drops and spills, possibly on every shift. As a result, durability should be a key criteria — 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 the demanding environment of retail, 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:** Where the drop test ensures that a device can handle the impact of a single hit, the tumble specification 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 ratings ensure 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 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<sup>8</sup> 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 is 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 in use in the retail store 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. More likely is the alternative scenario — your employees become responsible for figuring out where to get support, resulting in a loss in productivity, a loss in time available to assist customers, as well as the fact that you have lost control of the support process.

### THE SOLUTION

Alternatively, today's enterprise class mobile devices do support centralized Mobile Device Management (MDM) solutions, which can 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, enabling the 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.

Motorola Solutions takes mobile device management a step further to include our enterprise class Mx Android-based devices. While the standard version of Android does not support MDM, our Mx Android supports enterprise class management. As a result, your IT department can manage all Motorola Solutions retail mobile devices from a single pane of glass, 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%.<sup>9</sup>”



**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.<sup>9</sup>**

## VOICE COMMUNICATIONS FLEXIBILITY

### THE ISSUE

When it comes to enabling your workers, mobile voice is just as important as data. There are calls from shoppers that are outside of your store, phoning for information. There may be calls from shoppers inside your store at a kiosk that need assistance. And associates need to speak to each other and their managers throughout the day. If the mobile device you choose can't connect to your store PBX system, calls from outside the store cannot be forwarded to the mobile device — instead, workers will need to search for a store handset to pick up customer calls. And if the mobile device you choose isn't capable of peer-to-peer push-to-talk, associates and managers will either have to physically search the store to locate each other or utilize the overhead paging system — which reduces the quality of the in-store experience for your shoppers.



### THE SOLUTION

To maximize customer service quality, workforce productivity and the cost of your mobility solution, you need a single device capable of providing not only access to needed data, but support for the many types of voice calls that will be required throughout the day. Motorola's Enterprise Voice Solution allows you to turn our mobile devices into powerful all-in-one voice and data devices that can enable whatever voice features a specific workgroup requires — so there is never a need for your workers to hunt for a store handset, 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, one device that can do it all.

**Key voice features.** With our complimentary Push-to-Talk Express client software (pre-installed on most Motorola devices), you can enable push-to-talk (PTT) between different types of Motorola 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 can 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.

**57 percent of shoppers will wait just 1.5 minutes or less for their call to be answered — and 43 percent report that when they abandon a call, they go to another store to make a purchase.<sup>4</sup> In order to prevent lost sales due to long wait times for callers, make sure the mobile devices you choose can integrate with your PBX, allowing you to route any call to any associate in the store instantly. No more long wait times, no more disgruntled customers and no more lost sales.**

## 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 criteria list, yet is often overlooked. The reason this criteria is crucial is the hidden costs of fast churn.

In the world of consumer mobile devices, one year 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, Motorola's retail 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

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



device has been discontinued. 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. When you choose an enterprise class mobile device, unlike consumer grade mobile devices, there is typically no need to purchase new accessories, further reducing capital costs and TCO. And if the device you choose has a platform strategy, like Motorola Solutions entire portfolio of retail mobile computers, applications can typically 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, Motorola Solutions offers cost-effective business-grade support programs that include 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, it's 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, so workers are back up and running the moment the device is removed from the box.

### Let us take care of everything with Mobility Lifecycle Management services

Our Mobility Lifecycle Management services allow you to offload management to those who best know your devices — the manufacturer. Motorola Solutions 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.

**In retail, your workers will depend on their mobile devices to provide your shoppers with the best service possible. You need to keep your devices up, running and in the hands of your workforce to protect customer satisfaction. That requires a support plan that will cover every service need, with 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

The numbers are in. They reveal that while, at first glance, it may appear that lower cost consumer grade mobile devices and BYOD programs that allow workers to use their own consumer grade mobile devices are the way to the most cost effective and most successful retail mobility solution, the numbers show otherwise — and numbers never lie. 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.<sup>10</sup>

### CONSUMER CLASS DEVICE ACQUISITION COSTS ARE THE SAME — OR HIGHER.

In order to develop an “apples-to-apples” comparison of consumer vs. enterprise class hardware costs, you’ll 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 over the course of the lifecycle of one enterprise class

mobile computer, you’ll likely need to purchase two to three consumer mobile devices and two to three sleds. The result? Hardware acquisition costs over a three to five year period for enterprise class are ultimately less than 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 serve your store for an average of three years+. 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



For more information on Motorola Solutions low TCO enterprise class offerings for your retail store, please **visit [motorolasolutions.com/retail](http://motorolasolutions.com/retail)**

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