Navigating the Challenges of Mobile Devices & Their Changing Platforms
Thoughts on Device Migration
By Wes Haubein and Anne Hale, HL Group, Inc.

Industrial Mobile Devices and Handheld Computers and Scanners are ubiquitous these days. If you rent a car, check in to a ball game, receive a package, or even complete your wedding registry – these devices and scanners are involved. Step onto a shop floor, a hospital floor, or enter a warehouse and you'll see even more devices. They are everywhere. And they are enabling technology to make our work lives – and personal lives easier.

There are hundreds of millions of dollars invested in devices today. Unlike our cell phones, the industrialized devices used in the above examples (and beyond) have a more significant investment to them. However, in spite of their higher procurement costs, the total cost of ownership of these devices is much lower than their non-ruggedized counterparts.   Their lifespan is easily 5-7 years – and sometimes beyond that.
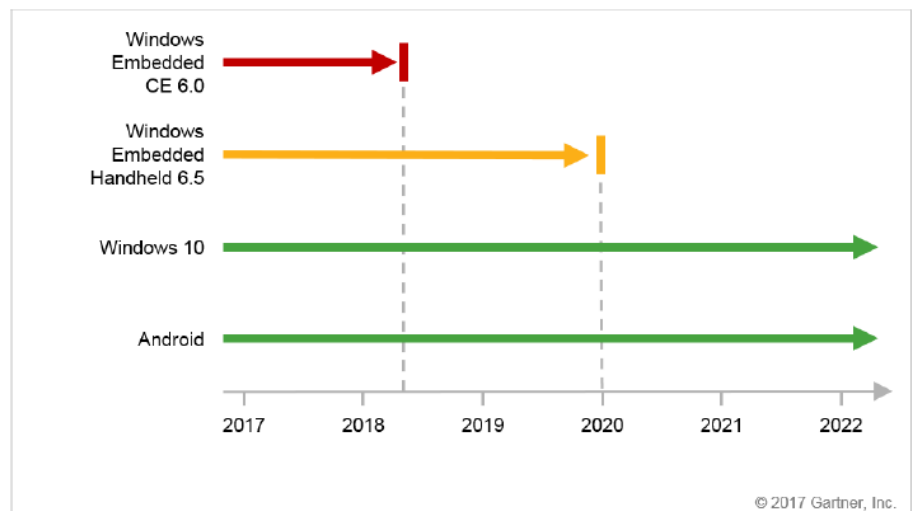
These devices are frequently relied upon to drive the data capture and data handling of mission critical operations. Interruption or loss can be catastrophic to that particular operation – and can have a rippling impact across an organization. As such, it's vital to ensure optimal device operation – as well as a high investment yield from every unit.

The Challenge

Many of the industrial devices currently in use are still running Microsoft's Windows Mobile 6.5. Unfortunately, this is an aging operating system that's at end of life. Moving off of this operating system can quickly disrupt that delicate balance of working hardware and compatible software – interfering with those critical missions.

So what do you do? You want to get the most out of your device investment. You need to provide efficient tools and operational support to your team using the devices. And you need to juggle these things without disrupting work.

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The Options

It may be tempting to define a hard change and throw out the old hardware for all new devices that run current Windows 10 or Android platforms. However – the cost will likely stop you. Just add up the investment cost of the new devices, the loss (shortened ROI) on the old devices, the cost to implement a new software solution on the new devices (or customize what you already have) and the cost to productivity for training and ramping up users on the new hardware and software that they need to use to do their jobs.

It's not a small number, is it? I didn't even ask you to factor in the time and effort for full testing or revised documentation – not to mention compliance efforts for your organization's network security and/or data handling protocols.

So it is tempting to take the ostrich approach and keep working with what you have. That may work for a little while, but End of Life is as ominous as it sounds. The manufacturers of your hardware and software are telling you that you're on your own, best of luck – and call us when you're ready to get on board with the current offerings. This is also an expensive proposition when you consider additional support burden to your internal IT staff – *and* the ramifications of the risk in this approach.

The third option is the piecemeal transition. This is where you begin swapping out the old devices as they become out of use and replace them with new devices. This approach doesn't offer that clear line in the sand that the earlier two do – but it may be the best way to migrate your operations with the least amount of disruption and expense.

The Considerations

The Piecemeal approach has some considerations to be made from the perspective of the hardware and the software. They require some evaluation and strategic review – but they will help this to become a successful effort.

Hardware

Buying new hardware devices can be a lot of fun – especially when you compare them to what you've been using for however many years. They come with all kinds of improvements and slick new features that you never knew that you needed. But once you get past the new toy dazzle, consider these factors that could be helpful to your rollout and ongoing operations:

> *RFID* Once considered far too expensive and impractical, RFID has now made its way into mainstream processes as an effective mobile tool. If you have critical items needing increased visibility – RFID may be a good addition to your solution capabilities – without blowing your budget.

> *Security* Policies and procedures are constantly changing. You need to ensure that the operating system offered for your hardware choice will meet your organization's security requirements. While Android is rapidly

coming into broad use in industrial markets, Windows 10 offers an option that will treat a mobile device like any other Windows device on your network. More secure areas of your operations may have different policies – so make sure your choices will comply.

Strategic Implementation Are you looking at one device for all operations or different new devices for different teams? When you have this opportunity to change devices, a little strategy could make some strong improvements in the tools offered for your different teams.

Software

As you are reviewing your hardware needs, the question of software will quickly come into play. It may be tempting to stick with your existing software on the old devices and either invest in customizing that solution for the new hardware platform or buy a new software product all together.

The approach of old + modified can give your IT team a massive headache (and expense) in trying to update, administer and support multiple systems. In an effort to avoid this IT stressor (and others), consider these factors:

Platform   You have Win Mobile on the floor, but new industrial devices are on Windows 10 and Android. Rather than juggling multiple solutions on different operating systems, it makes sense to look at software that can run on any of these systems – preferably simultaneously. A solution that supports multiple platforms will enable you to rollout new hardware as needed. And if that solution offers that capability out of the box, it will significantly lessen the time and (often more importantly) the cost to implement and support.

Connectivity While indoor operations typically offer wireless coverage for their mobile devices, not all operations are indoors. Do you have areas that don't have coverage? They may be outdoors, remote or (for security reasons) are purposely offline. As you review your software needs, consider the benefits of solutions that can operate when connected to a network as well as those that can operate when disconnected – or even reconnect automatically when coverage is available. The result may mean the ability to offer a secured automation to those disconnected teams that were still on clipboards.

Functionality The functionality review can start easily by looking at what is working now. But this type of migration effort offers an opportunity to add in additional functionality, like the use of RFID discussed earlier. This is a great time to not only look at what might make your users work easier – but to also see what the differences are in needs are across your user base. As you are reviewing products, you might look for products that not only offer new features for your teams, but may also offer different functions to different teams – ideally with the same product.

Configurable Looking at the long-term life of your software options, consider what controls you have over the functionality. If you want to make changes to what different team do or what different users can access, do you have to invest in software customizations? Having flexibility in how you configure your solution for different teams – or as your operations change and grow – can quickly increase the return on your software investment (not to mention the satisfaction of your users).

Transition Any change in production tools can be disruptive to the users. By introducing a new software product ahead of hardware changes can minimize the amount of disruption to the users. That will enable IT to introduce the new hardware strategically with lesser impact to operations.

The Inventory Option - mobilePLUS

If you are using your industrial devices for tracking, mobilePLUS is a solution that you should consider.

mobilePLUS is an industry-leading mobile asset / item inventory solution that carries 20 years of history, growth, and input from thousands of satisfied users. mobilePLUS may be operated on the Win Mobile 6.5, Android or Windows 10 platforms - or in any combination. Regardless of platform, users are presented with the same functionality and user interface. mobilePLUS is also certified for use with all major mobile devices – and continues to add new devices regularly.

mobilePLUS is configurable. Customizations are not required to support multiple platforms, device types or functionality for different user teams. Adding RFID or requiring new fields can be accomplished by clicking a button. The need for custom code work to support your solution is virtually eliminated given the range of options available.

There is a structured documented approach that guides you through the configuration choices available. And once completed, you can update those configuration changes at any time. This accelerates the solution deployment for a fraction of the cost of customizing your original Win Mobile application.

The mobilePLUS solution leverages a single network interface and host database to manage the work it executes. This alleviates your IT department's administrative burden by operating on a single environment – regardless of the number of site/locations/teams using the solution.

GOALS

- DEVICE MIGRATION AT YOUR PACE
  o Gain the highest ROI of your existing devices
  o Experience benefits of new devices as added – no wait for big bang
  o Be strategic in deployment & use of your device pool

- COMMON FUNCTIONS / INTERFACE FOR END USERS
  o Lessen the learning curve & disruption from changes

- INEXPENSIVE AND RAPID TRANSITION TO NEWER FUNCTIONALITY FOR ALL USERS — REGARDLESS OF DEVICES

Conclusion

Addressing end of life issues in your operations is never an easy undertaking. But the opportunity can offer your team a means to address the platform problem – and elevate your solution functionality at the same time.

The mobilePLUS option for this migration has many advantages financially and operationally. Financially, it can extend the life of your Win Mobile device investment until it makes since to retire them – getting the most out of your existing device investment. Operationally, it can provide you with an inexpensive and rapid transition to new devices & platforms offering upgraded functionality – whenever you're ready.