



# THE GREAT OS MIGRATION

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A Guide to Navigating  
this Path with CDW



## The Great Mobility Migration

Mobility has become entrenched in the enterprise – from warehouse to the field service technician’s truck to the smartphone in the vice president’s back pocket. Investments in the mobile line-of-business solutions have been steep, and for many companies the technology has gone through several iterations over the course of decades.

In most of those instances, the solutions in place look very similar. They include Windows-based mobile computers, the majority of them supporting 3G or 4G wireless communications. Relying on those existing platforms has allowed companies to migrate to newer hardware while maintaining their existing investment in current software systems – and without significant business disruption.

That is about to change dramatically. The transition into 5G has started to roll out back in 2018, but we can expect to see a majority of it break ground as we push towards 2020. A 5G network possesses the capability to run exponentially faster downloads and upload speeds. The time that it would take you to communicate with another network will decrease as well.

These changes mean the cost of hanging onto legacy mobile technology will grow as these devices become more difficult to maintain and wireless network options close off. What’s more, even those companies that opt to deploy mobile devices based on the new Windows 10 platform will still need to upgrade their software, middleware, and mobile device management systems, as the new OS will not provide backward compatibility.



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## Android

### The New Face of Rugged Mobile Devices:

Microsoft ends support for its existing mobile OS family in 2020, and the launch of Windows 10 Mobile was a non-starter (lack of market interest led Microsoft to essentially end further development last year.)

That leaves rugged mobile device users with a choice and an opportunity: Stick with a Windows platform with an uncertain future or transition to Android? Given that there will be development and software upgrade costs for either option, end users now have more flexibility to start fresh.

Sitting still won't be an option for most users. After 2020 (or 2021 for Windows Embedded Compact 7.0), Windows-based devices will receive no security patches, support, resolutions for code issues, or new features. Customers maintaining legacy devices will also face potential Wi-Fi disconnections, a shortage of replacement parts, and a generally unfriendly user experience.

Android has emerged as a viable option for enterprise deployments thanks to a number of inherent advantages. Improvements to the platform and new enterprise-based features included in Android Enterprise have promoted rugged device manufacturers to release a wide range of Android-based handhelds, tablets, and smartphone-like devices.



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# That rapid growth has further highlighted Android's advantages in the enterprise mobility space, including:

## All the major enterprise mobility management (EMM) or mobile device management (MDM) solutions now support Android, which was not previously the case.

This support has made it easier and faster to roll out new Android deployments with the same support and provisioning capabilities customers have come to expect.

## The platform is open source

This makes it much easier to create greater levels of customization when it comes to enterprise applications and features. In addition, there is a large network of Android developers and a robust market of existing business applications available.

## Employees are already familiar with the Android Interface

The bulk of smartphone users own an Android phone, which means they will be comfortable these new rugged devices. That makes the applications easier to use, decreases worker training time, and leads to faster and less disruptive deployments.

## Android provides the flexibility for hardware vendors to create innovative form factors.

Rugged Android devices can offer full-screen options, software keypads that enable new interface options, and even physical/tactile keyboards for certain applications.



# 5G Promising More for the Future

With 5G, everything will be better. Websites will load faster, videos will load quicker, online multiplayer games will stop lagging, and you'll experience a smooth experience when using Facebook and FaceTime. 5G can connect more of your in-home devices to the internet without causing any bandwidth issues. From smartphone, wireless thermostat, video game console, wireless security cameras, tablets, laptops, and more can all be connected to the same router, without any fear of them not functioning at the same time.

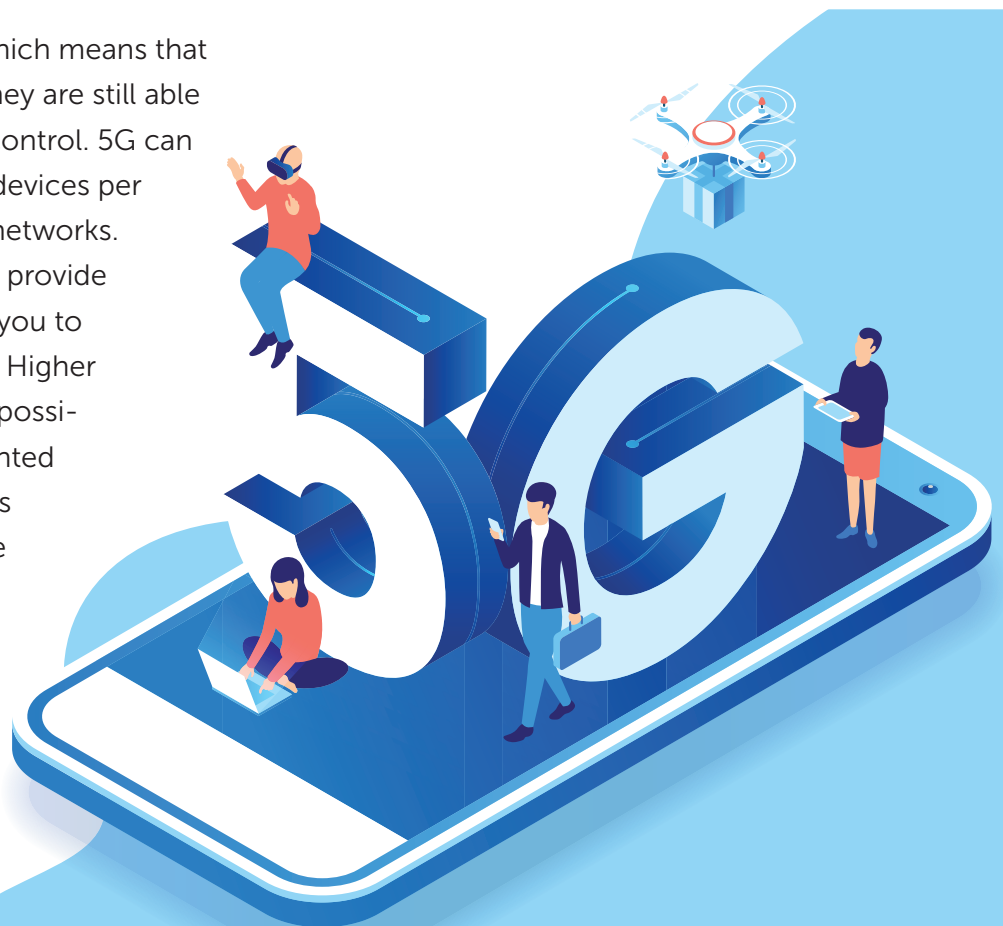
5G works different than 4G. 5G uses unique radio frequencies that 4G can't even touch upon. This radio spectrum is broken up into bands that offer varying features as you wind up to higher frequencies. These high frequencies are great for a number of reasons: they are less cluttered from cellular data, perfect for increasing bandwidth demands and can be used right next to other wireless signals without causing any interference. 4G towers fire data in every direction possible, which can actually do more damage, by wasting energy and power by beaming radio waves towards locations that aren't even requesting access.

5G also uses shorter wavelengths, which means that although the antennas are smaller, they are still able to provide more precise directional control. 5G can also support more over 1,000 more devices per meter than what's supported by 4G networks. 5G will work alongside 3G and 4G to provide speedier connections that will allow you to stay online no matter where you are. Higher speeds and lower latency to make it possible for new experiences with augmented and virtual reality applications such as connected cars and smart homes, free of lag.

5G will benefit you with ensure minimal lag when streaming videos. Smart cities will become safer. Users will have near-in-

stant access to files online and there will be more reliable internet access in remote areas. We'll see an emergence of new products and applications that will require faster functioning speeds.

This wireless connectivity should provide connections that multitudes faster than current connections. We can expect to see a huge surge in IoT applications and the infrastructure will need to carry huge amounts of data, making it easier to see a smarter and more connected world. We'll find more strategically placed antennas to support this move towards 5G, smaller ports will be set up through rooms in your house and larger ones placed around the cities.





The move to LTE devices shouldn't be motivated simply by a lack of service, however. LTE will offer benefits that simply weren't possible on legacy networks.

Those include:



### **Wider Coverage:**

As mentioned previously, Verizon and other carriers are converting their existing networks to LTE, which will leave non-LTE devices out in the cold when it comes to coverage. New network configurations and technology improvements will also provide stronger signals for wireless users.



### **Shorter Latency times:**

LTE Networks' lower idle-to-active times will improve network responsiveness and make mobile applications truly operate in real-time. LTE latency can be as much as half that of current 4G networks.



### **Simultaneous voice and data:**

In the past, most networks (and most hardware) did not allow users to access voice and data features at the same time. LTE makes this possible, so that a field service technician, for example, could speak to another tech or support personnel while reviewing worker order information on their mobile app.



### **Improved Audio:**

LTE will provide high-definition voice service and clearer audio. In addition, LTE can enable features like video calling and improved battery performance when using such services.



### **Faster data speeds:**

LTE networks will provide higher bandwidth, enabling true broadband speeds for mobile applications – up to 100Mbps, compared to the 3G maximum of 7.2Mbps. This will provide 10-times the faster data speeds for enterprise applications.





# The CDW Difference

## Info about CDW and their commitment to the OS migration:

CDW's Application Migration Services can help customers modernize legacy applications to support new devices, and develop their next-generation mobility strategies. These services also help clients to future-proof these new applications and platforms. These services include App virtualization to allow legacy Windows applications to run without modification on new mobile environments, user experience prototyping, and full app migration to redesign applications to run on the Android OS.

Android and LTE are the future of enterprise mobility. Resellers and Integrators can help their customers successfully navigate the transition away from legacy systems to modern mobility platforms. As support for older hardware solutions evaporates, doing nothing

will no longer be an option. The sooner your customers can begin the move toward Android and LTE, the better positioned they will be to succeed in the future.

To learn more about CDW's OS Migration strategy, their application migration services, and how they can help you refresh your customers' old devices, visit our website today!

**LEARN MORE**



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