

Achieving Maximum Productivity and the lowest TCO with Mobility

From aircraft maintenance to protecting the country on the battlefield, defense agencies are using mobile technology in ways that improve productivity and national security.

With the use of mobility at an all-time high, the Department of Defense (DoD) understands the important role mobility can play in transforming its operations to achieve better operational efficiency and access to information. Federal decision-makers clearly agree; a survey of 300 federal managers by AOL Government found that mobility would greatly improve productivity and decision-making. About half indicated that a typical federal employee would gain at least seven hours of productivity per week if they had access to mobile technology while on the job.

While the benefits of full mobility are clear, there are still hurdles to overcome in the area of total cost of ownership (TCO). One of the best ways to improve the TCO of mobile solutions is to bypass consumer-grade tablets in favor of enterprise-grade devices. These devices, which are more durable, feature-packed, and are built on the Windows platform, integrate more easily with the existing infrastructure. In addition, agencies should move toward enterprise-wide mobility, with a goal of one device per person for all functions, from the office to the battlefield. With these actions, defense agencies will not only gain the full benefit of mobility, but significantly improve ROI.

ENTERPRISE-GRADE TABLETS ENABLE LOWER TCO

While consumer-grade tablets may seem like a logical choice from a cost standpoint, they often can't meet the rigorous security, durability, configurability and reliability demands of defense agencies. A report from VDC Research found that annual failure rates of consumer tablets supporting enterprise field mobility applications is as high as 19 percent. Tablet failure can significantly disrupt workflows and lower productivity, but most importantly, can lead to mission failure. And because they must be replaced more often, the cost benefit of purchasing consumer tablets quickly declines. VDC Research found that each percentage point in tablet failure can result in a five percent increase in cost of ownership.

In the security arena, consumer-grade tablets typically come with consumer-grade security that doesn't satisfy strict DoD security requirements. Defense employees may need to access or transmit sensitive information, and mobile devices must comply with all specifications of NIST's Risk Management Framework. One additional consideration may be Opal standard-based hardware encryption, which offers added levels of security above software-based methods. Opal drives are self-contained, stand-alone drives that are available for enterprise-grade mobile devices, and provide an extra layer of security to protect sensitive data. In addition, tablets may also have to be able to accept and process digital credentials

from Personal Identity Verification cards and Common Access Cards for remote authentication.

Durability and reliability are also areas where enterprise-grade tablets make more fiscal sense. If the devices will be used in the outdoors, or in harsh environments like an aircraft hangar or warehouse, a ruggedized device will be the best choice. Look for an enterprise tablet with MIL-STD-810G and IP ratings, which indicate that the device has been tested by an independent third party to withstand a range of abuse and environmental conditions. While consumer-grade tablets can be equipped with cases that offer the most basic level of protection, these devices lack the internal design elements like shock-mounted drives that protect them from long-term rough handling or vibrations. Since tablets are so mobile, they have a higher likelihood of being exposed to extreme conditions, from direct sunlight and water, to extreme temperatures and drops. Most consumer tablets can operate safely between 32 and 95 degrees Fahrenheit, for example, but operating outside of that range will cause them to shut down or will damage them.

Battery performance is another area where enterprise-grade tablets are a better choice. For mission-critical applications, there is no tolerance for downtime of any type. In general, batteries should last eight to 10 hours, but batteries in consumer devices often don't last the full shift. These devices also lack removable batteries, requiring the entire device to be plugged in to recharge, which takes time away from the mission, and reduces productivity. Enterprise-grade tablets have

batteries that are removable, or even hot-swappable, which means that when a battery starts to lose charge, it can be replaced immediately without even powering down the device.

The missions of defense personnel vary significantly, depending on the role and environment. Field personnel may need GPS for location-based activities or microwave radar technology to find people. Transportation and warehouse workers may need barcode scanning. Forensics investigators may need the ability to capture and transfer video files. Field personnel need integrated VPN, WAN and Wi-Fi radio management, and many also require store-and-forward capabilities. All of these capabilities either come with enterprise-grade tablets or can be added to them, while consumer-grade tablets come with a set of non-configurable, standard features.

Tablets that can't support specific agency functions for specialized workflows with accessories for mobile printing, enterprise data capture, asset management applications and other specialized requirements aren't suitable for the defense environment. Similarly, tablets that can't be configured with devices like GPS, barcode scanners, vehicle mounts, port replicators, removable hard drives and serial port interfaces won't give defense agencies the functions and value they need.

AN ENTERPRISE APPROACH TO MOBILITY IS A PATH TO LOWER TCO

Typically, agencies buy mobile devices for specific projects, missions or commands. While this approach provides some economies of scale, it doesn't allow an entire department to realize maximum return on investment. Taking an enterprise-wide approach to mobility—that is, including the entire organization in a mobility plan—at the highest organizational level possible provides many benefits, including greater

control over security, more efficient IT support, streamlined management, and the ability to apply policies and tools across the enterprise.

An enterprise-wide approach to mobile deployment and management can significantly streamline lifecycle management. Most importantly, it allows tablets to be treated more like desktops and notebook computers, with similar upgrade and support cycles.

Once deployed, managing devices across the enterprise is much easier. In addition to the ability to apply security policies across all devices including tablets, it is faster and easier to apply department-wide images that include the right applications and content before device delivery.

Finally, the enterprise approach to mobility makes it possible to issue one device to each employee that will serve all needs, from the office to the battlefield. By consolidating to one device per employee, agencies can save substantially on the purchase, deployment and management of additional devices. For example, a Marine Corps intelligence officer could use a tablet outfitted with GPS and video technology both in theatre and in an office environment.

CONSIDER AN ENTERPRISE-GRADE WINDOWS TABLET

While many defense agencies have chosen tablets based on other operating systems, Windows-based tablets have become a viable choice. The latest enterprise-ready Windows-based tablets provide features defense agencies can appreciate, from a rugged, environmentally hardened chassis and glove-sensitive touch screen to a hot-swappable battery and integrated RFID. Because they run the Windows operating system using Intel chipsets and processors, they can integrate securely and seamlessly with existing defense

infrastructure, which largely runs on Microsoft technology. They are also easier to integrate with existing agency IT functions like identity management and messaging.

In the security arena, Widows-based tablets are easier to secure, because they can use an agency's existing policies for the enterprise Windows platform. That avoids the challenges that arise in having a separate security system for mobile devices running other operating systems.

Application development is another area where agencies can experience economies of scale with Windows-based tablets. There is a large bank of applications already developed for Windows-based laptops, and it is much easier to port them over to a Windows-based tablet than a tablet using a different operating system. It's also easier to develop apps that can be used across an entire agency.

The cost of developing line-of-business apps for the Windows environment also takes less time, which translates into a significant cost savings. According to the VDC Research survey, developers indicate that it takes about 20 percent less time to develop a Windows app than it does to develop an app on other platforms.

CONCLUSION

While mobility has already proven extremely valuable for defense agencies, there are ways to squeeze even more value out of the mobile equation. By moving to Windows-based, enterprise-grade tablets and adopting an enterprise approach to mobility, agencies will save money, increase efficiency and more effectively carry out their missions.

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