Lenovo

10 Reasons to Adopt Mobile Workstations for Engineers and Designers

New mobile workstations, software and devices increase designer productivity to shorten project timeframes and prevent missed deadlines.

The benefits of mobile computing are impossible to ignore. Users are embracing it with gusto, as some studies show many users are in "mobile mode" more often than they're in the office. But design and engineering professionals have been slower to adopt mobile computing technology because the devices lacked sufficient power and performance, and didn't support the software tools they need.

But the landscape is changing. The combination of improved performance in mobile workstations, broad availability of high speed networks, new cloud services and increased security is creating fertile ground for design and engineering professionals to take advantage of mobile computing. Leveraging mobile technology is an essential strategy for ensuring that these professionals meet deadlines and keep projects on schedule. Following are 10 of the top reasons driving mobile technical computing in the design and engineering space.

1. A More Flexible Workday

One of the most oft-cited benefits of providing professionals with mobile computing solutions is they gain far greater flexibility in terms of when and where they can get work done. Maybe they work during their commute on public transportation, at home during down time, or while traveling. Given the appropriate tools, nearly every design professional can find time outside of the office to get work done. If a designer or engineer works even 3 or 4 additional hours per week, it will more than justify the expense of mobile hardware and solutions.

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2. Reduced Cycle Time For Design Modifications and Changes

Every design or engineering project requires numerous changes and multiple versions as it moves toward completion. Reducing the time needed to make those changes helps ensure the ability to meet deadlines. Mobile computing can help by enabling participants in the review process to make changes whenever it's convenient for them – even if it's after normal work hours or on the weekend. This speeds up the process and reduces the time it takes to make and approve changes.

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3. Work From Home

The ability to work from home drives employee job satisfaction and results in better employee retention. Working from home can eliminate commute time, thus increasing the chance that workers will spend more time working. What's more, a day spent at home tending to a sick child doesn't necessarily mean a whole day of lost productivity. Mobile solutions also allow the organization to better utilize part time and temporary workers who may be essential for keeping projects on track and on deadline. All it takes is a combination of mobile hardware, network access and security solutions to ensure the organization is protected.

4. Remote File Access Services

Although when discussing mobility solutions many users think about form factors like laptops or tablets, another aspect is remote file access services. These services, which use virtual desktop or similar technology, allow the designer or engineer to access designs located on a remote, central server and review or modify them without the actual files ever leaving the server. This requires a well-managed infrastructure to deliver good performance to various end devices but it is also inherently secure, making it suitable for designs with stringent requirements around where and how they can be stored.

5. Improved Mobile Workstation Performance

For many years, users were concerned that mobile workstation performance was inferior to desktop and tower workstations, meaning their productivity would suffer. That is absolutely no longer true. For example, the new Lenovo ThinkPad® W541 mobile workstation offers up to a 5th generation quad core Intel® CoreTM i7 processor, up to 32GB of memory, up to 512GB SSD of storage, and up to an NVIDIA® Quadro® K2100M graphics card with 2GB of memory. It provides stellar performance for software packages like Autodesk Design Suite and similar design applications. This provides a platform that allows mobile designers and engineers to be just as productive as they are with non-mobile workstations.

6. More Mobile Software Products

Software vendors are also now releasing more "mobile friendly" versions of their offerings. Autodesk has been a leader in this space with Autodesk 360 for both mobile and web-based use. As the performance of mobile workstations improves to rival desktop versions, newer releases of "downsized" workstation applications focus on tablets, including Windows and Android. The Lenovo ThinkPad® Helix is an example of a tablet product that users can add to the ranks of mobile workstation solutions.

Putting the power of their office workstation in a mobile device allows traveling workers to make better use of time spent in remote locations.

7. Cloud-Powered Solutions

To provide the maximum return on investment, mobility solutions must include hardware devices, networks and services that together provide value for users. This is especially true for designers and engineers who have demanding computing requirements. Cloud-based services are a good fit for the mobile computing model and their use is exploding. The combination of engineering-centric cloud solutions and general-purpose solutions for a broader business audience adds up to an important set of capabilities that increase the ROI from mobile workstation use.

8. More Productive Time On-site

Common sense dictates that the more types of devices you have in use from different vendors, the greater the complexity in implementing mobile security. Some companies are addressing the issue by encouraging users to choose their device from a limited number of vendors. The key to making this work is selecting vendors, like Lenovo, that have a broad line of mobile devices that are attractive to end users.

9. BYOD

As organizations start to embrace mobile workstations and mobile work styles, they are also seeing a corresponding increase in the bring-your-own-device (BYOD) phenomenon. BYOD is playing out a bit differently for design and engineering applications as compared to general business use, however, especially in terms of the type of devices in use. For the workstation user, the smart phone takes a back seat to the tablet for design work, primarily due to application demands in terms of display, performance and overall system capability. The availability of a new class of Windows tablets is a huge benefit. In some cases, like the ThinkPad® Tablet 10, they allow users to run native Windows-based design and engineering applications on the tablet. In cases where the tablet doesn't have enough performance, users can employ them as access points to online applications such as Autodesk 360.

10. More Efficient Collaboration

Collaboration is becoming increasingly important as organizations realize no one's work stands alone, and the ability to integrate individual work products into a useful whole is essential to success. The collaboration process is defined as "inform and respond," so the quicker members of the team respond, the faster the project is completed. As noted above, mobile users spend more time engaged with their work activities, resulting in less delay in their response to collaboration requests. Faster sharing and editing of information streamlines the collaboration process, enabling projects to be completed more quickly.

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Summary

The case for increasing the use of mobile technology for design and engineering professionals has reached the tipping point, as the arguments against the technology no longer carry weight and the benefits are clear in terms of the increased productivity and flexibility mobile solutions bring. In short, mobile solutions help engineers and designers complete projects on time and within budget, a key requirement for success in any business.

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