



Empowering the Workforce in a Rich Media World

October 2014

Andrew Vo sandisk.com/SSDsolutions

Summary

To gain the competitive advantage of being "media savvy," companies must now deploy or create rich media at every level of the organization and view individual team members as critical links in the communication supply chain. While the relevant tools and apps to support this trend are in place, those resources have also placed a drag on device performance and overall productivity. We'll explore several of the key roadblocks and give you recommendations for dealing with the new world of rich media. As mobile workers rely more than ever on devices for connections to business-critical applications, breakthroughs in solid state technology bridge the gap.

Every company is a media company

Conglomerates like GE and P&G now consider themselves media companies, and have gone as far as to form editorial newsrooms that are larger than traditional newspaper and magazine teams. Journalists are now hired at senior levels and platoons of "content strategists" oversee numerous communications channels.

Every Excel spreadsheet tells a story. Every Twitter feed supports a host of corporate objectives, whether that's branding, tactical acquisitions or testing of new products. This means every employee is now viewed as a critical communicator. While the era of the cubicle has not quite concluded, how we work and how we think about our "computer" and its utility is rapidly evolving, and we're demanding more.

¹ PCWorld, "The astounding evolution of the hard drive" Sept 12, 2013
² Forrester Research, 2013 Mobile Workforce Adoption Trends

Left to our own devices

The very first hard drive was the size of a refrigerator and weighed more than a ton. We've come a long way, but a laptop hard-drive that spoils a budget planning meeting or a pitch to a prospect might as well be a refrigerator.

The cost of memory is not the issue. PCWorld¹ estimates that in the past 30 years, the cost of storing a gigabyte of data has plunged from more than \$100,000 to mere pennies and if a sales team or a market researcher cannot readily access any portion of that gig, the new value proposition quickly disappears.

A recent Forrester Research report² states, "gone are the days when employees wielded a simple set of tools to get work done." Today's workers are media savvy and design conscious. They're the internal keynote speakers at budget planning conferences, using high-end graphics to present information in a crisp and compelling manner. They're not only building but also supporting online sales presentations, webinars and live demos — a new form of competitive advantage.

Ultimately, speed of access to applications and information is the issue now. Dashing from their open-design workspaces to formal scrums and informal hallway collaborations, even single-location, office-based workers are essentially mobile in their workflows. Like their road warrior counterparts, they're concerned with rapid access to folders, how quickly applications open and close and how fast their computers boot up and shut down.

The elusive "Everything, Everywhere"

While "greed for speed" and "readily available" command the day, our headlong sprint toward "out-of-thebox" implementations and adoption throughout the organization remains tethered to files inside an office. Gartner goes so far as to suggest that now through 2018, a variety of devices, user contexts and interaction paradigms will make "everything everywhere" strategies unachievable³.

At the same time, this highly-skilled mobile workforce, growing at 20%, experiencing the luxury of BYOD (bring your own device) and comfortable with consumer-designed technology, has no patience with employerprovided equipment. You'll also hear about it from the IT leaders: slow application response times and long boot up cycles; reliance on Microsoft applications and Google drives and the accompanying "feature creep" which inhibits all parts of the stack, including storage, operating systems and productivity suites.

Here are just a few of the elements of the corporate encumbrance, including presentation trends, data size, email behavior and Cloud-app inhibitors:

Proliferation of PowerPoint (PPT)

You can trace the beginning of "producing presentation graphics for overhead projection" to the year 1984. Three years later, the company that developed "Presentation" was sold to Microsoft for \$14 million⁴. Originally designed for management and sales personnel, PPT usage now encompasses just about every function and responsibility level in the organization. On the 25th anniversary of PPT in 2009, Microsoft estimated that there were one-half billion users and 30 million presentations every day⁵.

By trying to make presentations more convincing and engaging, the natural tendency of any user is to load PPT with rich media. The result? An ever-increasing file size, complexity of the added elements and "deck bloat." Presentation decks are bulging in size with video files, high-res images and other rich media as companies try to position themselves as leaders in their respective spaces. Even presentations viewed internally have contributed to the drag on productivity.



³ Gartner, Inc. "Top 10 Strategic Technology Trends for 2014"

⁴ Bright Hub, "Microsoft Power Point: History & Features" 2008

There are numerous reasons why PPT file sizes may get out of hand — it's not just rich media. Culprits from the application itself include: saving as earlier-version PowerPoint files, default settings, embedded objects, raster graphics, fast saves, fonts and even the review features.

Deploying solid state technologies can alleviate these PPT bottlenecks and boost productivity by improving access times to rich media applications and overall operating system functionality. Related benefits include faster file write time and reduced time for re-imaging.

Rich media files

Rich media is frequently created in specialized groups like marketing or outside creative agencies. But what about the recipients and intermediaries of rich media files created in Adobe and Photoshop, who have to integrate them quickly into standard office applications?

What happens when those rich media files are shared within the business across sales teams and branch offices or pushed externally to customers and partners? How many workers resort to firing up a desktop system because of mediocre performance from their laptop when dealing with large numbers of images and video files?

Like rich media, 3D modeling is frequently created by the engineering group or in R&D environments as rapid prototyping. But what happens when those prototype files hit the other functions of the business, such as marketing, sales and operations? That could result in a lost sale or backlog in development timelines.

Companies that introduce the significantly faster processing of solid state technologies experience a higher level of agility and productivity across the organization, especially related to working with rich media files.

Email attachment and unnecessary downloading

Routine daily email processing is not a storage-intensive task. But what do users do with omnipresent email attachments? They typically download them to a hard-drive out of habit — spreadsheets, slideshows and images (JPGs, GIFs, PNGs) — so they're instantly accessible (instead of floating in the ether).

Unless they engage in a highly collaborative environment, many users view their email application as a form of transmission and not as a natural form of storage; thus, attachments are downloaded.

And how often do users hit the download button on the Google drive in order to manipulate a spreadsheet or a slideshow as a desktop application?

Saving and retrieving emails from a solid state drive rather than a cumbersome and less reliable hard-drive results in higher productivity rate at lower TCO.

Data file size disconnect

Many rich media email attachments now exceed 25MB, but corporate email that receives these files often restricts any attachment over 10MB. Mainly for security and performance reasons, external email server providers limit the maximum file size that an email account can receive. Otherwise, email servers would risk being overwhelmed. Some free email providers also enforce commercial limitations on the email size — free accounts get a low maximum email size limit but can be increased to the maximum limit by upgrading to a paid account. There may not be budget for that.

However, there are workarounds like Outlook optimizer— applications that automatically compress outgoing file attachments. Or, you can upload the files-to-be-attached to cloud storage servers (like Dropbox or Google Drive) and include the download link in an email. In many cases, you're mostly patching a hard drive environment, with all the attendant limitations, onto a cloud-based system to make it usable in the real world.



Workarounds and patches are ultimately not the answer for today's media-fluent workforce accustomed to maneuvering easily across responsive personal devices and consumer apps. Neither does IT desire a flood of complex presentation files with large attachments causing slow response times, lapsed connectivity for users and a strain on data throughput and the data architecture.

Changing just one piece of the puzzle can result in improved device and network performance when it comes to rich media files. While a solid state drive won't compress an oversized presentation, it will re-image faster, write that large, rich media file to the drive faster and it will be presented without delay on the other end. Solid state drive technology delivers a higher productivity benefit accompanied by lower overall costs.

Conclusion

In this era of rich media and the advancing sophistication of regular business applications, the average user matters more than ever. Equipping and enabling staffers who mostly work with standard, but media- and format-rich documents and spreadsheets means a competitive advantage for a company that can leverage its software investment as effectively and efficiently as possible.

The price point and potential benefit of SSD technology applies to all levels of the organization. Mobile workers and staff that participate in multiple meetings and are frequently off their docking station will benefit from greater storage and improved response time. When even the most basic presentation and other image-based applications launch anywhere from 40 to 75 percent faster, rich media lives up to its potential.

Frequent user tasks like downloading files from the Cloud, zipping files for email attachments, and even the copying of files benefit from the speed support of an SSD. Likewise, rich media applications like Adobe Reader[®] and Photoshop[®] are enhanced by the communications agility and storage support of an SSD. SSDs are much faster, more durable, cooler and operate silently while also drawing less power.

When every company is a media company, the winners will be those who tightly integrate entrenched applications, emerging cloud storage services and solid state drive technologies into their unique work ecosystems.

Powered by SanDisk SSD

The world of digital content grows exponentially every day and SanDisk[®] is designing flash storage solutions so that your valued data is readily available and reliable, even in the most challenging environments. SanDisk solid state drives offer energy-efficient, compact and durable alternatives to traditional hard disk drives for desktops, laptops and ultra-thin PCs.

©2016 Western Digital Corporation or its affiliates. All rights reserved.

SanDisk and the SanDisk logo are trademarks of Western Digital Corporation or its affiliates, registered in the United States and other countries. Other brand names mentioned herein are for identification purposes only and may be the trademarks of their respective holder(s).

