

The Federal Lawyer in Cyberia

MIKE TONSING

It Is the Best of Apps. It Is (Potentially) the Worst of Apps.

Dropbox™ (www.dropbox.com) may be the best free application to become available in the last several years for busy lawyers who are technologically challenged. The application is nearly perfect. It is so simple it is nearly foolproof. It fills a definite need and requires no training. It allows users to download free software and then upload, free of charge, up to two gigabytes of data to its Internet-based servers; data can then be accessed on any device from anywhere, with the user needing only a password. For example, I could upload a letter I wrote in MSWord™ and then download it to my iPhone™. I can upload the letter with the simplicity of “drag and drop”—simply moving the file on the screen of my device. Think Rosetta stone—a Rosetta stone that can be accessed effortlessly from virtually anywhere on the planet.

On the other hand, although it is unlikely, Dropbox may also be the worst of applications for these same lawyers. One should not rush headlong toward this attractive resource. Let me provide a little background and the good stuff.



Background and Good Stuff

I have written about “the cloud” before. Let me return to that topic again. Dropbox epitomizes a revolutionary shift that has already begun to transform our relationship with technology. The revolution is known as “cloud computing.”

The cloud has been one of Silicon Valley’s biggest buzz terms for the last couple of years. Last year, the term moved from the excited talk of tech insiders into the minds of mainstream users thanks to the launch of services like iCloud™, which was developed by Apple™. (Apple’s iCloud enables subscribers to store their music and other items in a central place that can be easily accessed by a multitude of different devices.)

Tech industry analysts are betting that cloud computing will become the defining trend in computer technology. Large companies like Apple, Hewlett-Packard™, and Oracle™ are overhauling their businesses in order to produce the tools that will facilitate and enable cloud computing services. And these companies have a good reason for doing so: according to knowledgeable sources at Gartner Research, consumers of electronic technology are projected to spend \$16 billion annually on cloud services by 2016. Just last February, Apple confirmed that its newly an-

nounced Mountain Lion™ operating system will come with built-in iCloud syncing and storage. That is very important. But, what exactly does this development mean for us as lawyers?

The concept of the cloud can be daunting to non-techies even today, after a year or two of hype. Asking what cloud computing is can lead to all but meaningless techno-babble answers laced with irrelevant industry statistics. That surely does not help the typical lawyer grasp what’s so different about the cloud, what it all may mean to the everyday practice of law, and why it is all happening now.

Here’s the answer: Everything you’re doing today that is digital can be made instantly and nearly universally available, provided you upload it to the cloud—a place where it can be stored and then accessed through the Internet. The cloud is—or soon will be—ubiquitous.

Why should you buy software that regularly needs upgrading and maintenance? Instead, you can access both the software—and the data you want to maintain on it—in the cloud, and the software supplier can keep the software up-to-date seamlessly with absolutely no effort on your part. In addition, you can access and manipulate the data from anywhere, from any device, with just a password.

To refine your understanding of the cloud, there may be no better vehicle around than Dropbox. Dropbox, the company, was founded in 2007 in San Francisco, where your Cyberian columnist has his law office. The rise of Dropbox tracks the cloud’s quick move from the fringes of the tech universe into its very core. Last September, Dropbox scored an astounding \$250 million in venture capital. In just over four years the application has amassed about 50 million users.

In January 2012, Dropbox was voted the “start-up of the year” at the annual “Crunchies Awards”—an event at which tech cogniscenti gather in San Francisco’s beautiful Davies Symphony Hall and distribute Crunchies to recognize and celebrate the most compelling start-up companies and Internet and technology innovations of the preceding year.

Dropbox was created by two precocious graduates of the Massachusetts Institute of Technology who were frustrated about having to e-mail collaborative files back and forth to each other. This frustration would not have resulted in a marketable product had these two graduated 10 years earlier. But, propitiously, about the time their simmering distemper was ready to erupt—around 2007—their problem had become

an issue for ordinary computer users like us for several reasons.

By then, unlike earlier, many of us had acquired more than one computing device. Indeed, statistics compiled by IDC, a technology research firm, show that, by 2010, 124 million adult Americans had more than one device connected to the Internet. IDC projects that this number will climb to 184 million by 2016.

Adding to the urgency, these proliferating devices were coming in many different shapes and sizes. It had become relatively commonplace for a lawyer to have a personal computer at work, a Macintosh™ at home, and a smartphone running Android™ or iOS™, and possibly a tablet as well. According to IDC, the number of workers worldwide who are considered “mobile”—that is, capable of working in more than one location—rose from 758.6 million in 2006 to one billion by 2010, and that number is projected to rise to 1.3 billion in 2013, or 37 percent of the world’s workforce. So, moving a single file between and among this multiplicity of devices and changing it into different formats quickly had become a common headache at about the time that the two guys from MIT decided that there had to be a better way. The problem encountered by the creators of Dropbox wasn’t just theirs; more than a billion people would soon be facing it as well.

Still, in 2007, when these guys crafted their solution, Dropbox had a very limited market. Networks lacked the speed to grease the file transfers the developers envisioned. Uploading large files took too long for most people. But network speeds have increased quite a bit since 2007, as broadband connections went mainstream. In addition, the number of people in North America using speedy 3G networks for their smartphones jumped from 20 percent in 2007 to 54 percent in 2011, according to Morgan Stanley research.

Almost certainly, though, even these three parts of the puzzle—multiple gadgets, mobile workforce, and faster networks—wouldn’t have been enough to make Dropbox a success if one other puzzle piece had not fallen into place: the dramatic drop in the price of digital storage. By one estimate arrived at by Clearwell Systems, an information technology research firm, the price of storing one gigabyte of information fell from \$20 in 2000 to 10 cents in 2010. That development gave us more space to store data cheaply. More important, it led companies like Amazon to sell space on their own servers to start-ups like Dropbox. That meant that Dropbox could start for very little money. And, it did. Consequently, Dropbox can offer its basic service—two gigabytes of storage—for free.

The trends mentioned above that have given such impetus to cloud computing are projected to accelerate over the next decade. That, of course, is very good news for Dropbox. And it is very good news for lawyers who have significant amounts of electronic data

to store and to make portable. But, the winner of the Crunchies Award—Dropbox—is already facing enormous competition in the file-sharing space from other start-ups that are doing very similar things, such as Box.net™ and SugarSync™ (my two favorite alternatives right now) as well as CloudMe™ and Egnyte™. The competition is more daunting from the industry’s super-big players, such as Apple and Google™, which are actively expanding the ability of users to share files.

Apple’s recent press release trumpeting the new Mountain Lion™ operating system for its computers says, among other things, that “Mountain Lion is the first OS X release built with iCloud in mind for easy setup and integration with apps.” The release also notes that the “new iCloud Documents [application] pushes any changes to all your devices so documents are always up to date, and a new API helps developers make document-based apps work with iCloud.”

While this is a significant step forward for the cloud adoption time line, it probably isn’t as significant as it may at first seem. First, to take advantage of this new advance one must use all Apple devices and must not mix them with, say, Windows or Android devices, as most users do. And the documents that sync across one’s Apple devices, at this point, will all have to be from Apple’s iWork suite, which not every lawyer has or wants to use, to put it mildly. Moreover, one can only speculate about how long it will be before the word processing software or other application a law firm may want to use will have iCloud support.

As opposed to iCloud, the software needed to run Dropbox, which was a service that the late Steve Jobs reputedly wanted to buy at one point, can be installed on nearly any device (Windows™, Macintosh, iOS™, Android™, Windows Phone™, BlackBerry™, and so forth) and keeps files available to all such devices from anywhere that an Internet connection (or cell phone connection) is available. Because iCloud doesn’t work across platforms, if a lawyer has a Samsung Galaxy™ tablet, as I do, and a PC laptop, as I do, for example, iCloud won’t sync files.

According to a recent posting on VentureBeat.com as this column went to press, Dropbox had not yet provided anyone to talk in-depth about Apple’s announcement that its new operating system would include automated access to iCloud. However, a Dropbox source was quoted as having told VentureBeat’s reporters that it appreciates what Apple has accomplished but feels its solution is much more complete. In a statement to VentureBeat, a representative of Dropbox said that “iCloud is a step forward for Apple, but what our tens of millions of users love is that, unlike iCloud, Dropbox keeps all your files in one place and lets you access and share them from anywhere. Our users also love that Dropbox works with all kinds of devices and apps, not just those from Apple.” Well said.

CYBERIA *continued on page 22*

Not So Good Stuff

Dropbox is nearly perfect, but not perfect. It is, after all, software. Thus, ironically, one needs to install it in order to access the cloud. One must install it on every device in one's inventory.

Potentially more significant for unwitting lawyers is the possibility that privileged documents could be compromised by housing them in the cloud. My earlier column on the cloud addressed this issue in another context and concluded that ethical constraints did not preclude the use of the cloud. With Dropbox or any other such storage system, one should investigate the level of encryption used. One should also check out the company's privacy and use policies. Readers might also want to visit an ominous posting on a site known as Hytechlawyer.com, where, in May 2011, the author warned that a fix to the Dropbox security system had not satisfied him. His story began as follows: "[T]here has been much discussion regarding possible vulnerabilities in Dropbox security that might make the service unsuitable for use by attorneys and others required to protect the confidentiality of data. Reportedly, these issues have been addressed by a software fix. See hytechlawyer.com/?p=339. However, for lawyers a more fundamental inquiry is required." The writer's account focused on issues like the possibility that data in the cloud could be given to unauthorized or unintended sources via a subpoena or otherwise.

The posting is worth reading.

Finally, even though the mass migration to the cloud now seems to be inexorable, our rush to adopt this convenience should be tempered by lawyerly prudence. There are those who would be delighted to disrupt the Internet on a global scale. Reliance on the Internet always should be tempered by that reality.

Conclusion

Cloud-based computing is upon us. Cyberian lawyers should make this reality work to their maximum benefit but always within the bounds of ethics and prudence. Dropbox and its alternatives should be investigated and, in the right circumstances, may well be a great solution. Meanwhile, see you next month in Cyberia. **TFL**

Michael J. Tonsing practices law in San Francisco. He is a member of the FBA editorial board and has served on the Executive Committee of the Law Practice Management and Technology Section of the State Bar of California. He also mentors less-experienced litigators by serving as a "second chair" to their trials (www.YourSecondChair.com). He can be reached at mtonsing@lawyer.com.

know that at least one member of Congress argued the government should not be in the business of telling Americans that buying a sailboat was not a good use of their home equity.

⁴26 U.S.C. § 163(h)(2).

⁵26 U.S.C. § 163(h)(3)(B) and (C).

⁶See *P.S. Pau*, 73 TCM 1819, T.C. Memo. 1997-43, and *P.E. Catalano*, 79 TCM 1632, T.C. Memo. 2000-82.

⁷Field Service Advice Memoranda 200137033 (June 18, 2001).

⁸National Association of Realtors Annual Mean Prices, published at www.realtor.org/research/research/ehsdata.

⁹National Association of Realtors Annual Median Prices, published at www.realtor.org/research/research/ehsdata.

¹⁰The Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 2010–2014, JCS-3-10 (Dec. 15, 2010).

¹¹See Eric Toder, et al., Reforming the Mortgage Interest Deduction, Urban Institute, at www.urban.org/url.cfm?ID=412099 (April 2010).

¹²Internal Revenue Service, *In 2012, Many Tax Benefits Increase Due to Inflation Adjustments*, IR-2011-104, Oct. 20, 2011.

¹³Benjamin H. Harris and Daniel Baneman, *Who Itemizes Deductions?*, TAX NOTES, Jan. 17, 2011, at 345.

¹⁴Examples abound, but two recent bipartisan efforts are the National Commission on Fiscal Responsibility and Reform, *The Moment of Truth*, Dec. 2010 p. 31 at www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf and the Bipartisan Policy Center's Debt Reduction Task Force, *Restoring America's Future*, Nov. 2010, pp. 33-34 at www.bipartisanpolicy.org/projects/debt-initiative/about.

¹⁵Congressional Budget Office, *Budget Options Volume 2*, 187-88 (August 2009).