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Law Practice Technology

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As of June 1st, 2012, the number of objects stored on Amazon's S3 cloud service amounted to 3.3 objects for every star in the Milky Way galaxy.¹ In 2013, the amount of data stored on all cloud services surpassed an exabyte—of which one equals 1,073,741,824 gigabytes.² Cloud computing has been, and with the advent of new technologies, will likely continue to entail evolving concepts and functionalities.

What is cloud computing?

In layman's terms, cloud computing can be defined as "a technology platform for software applications that are hosted on a computer system somewhere other than your office and is accessible anytime and from anywhere via the Internet using a standard web browser."³ IBM defines cloud computing as "the delivery of on-demand computing resources—everything from applications to data centers—over the Internet on a pay-for-use basis."⁴ Delivery connotes a conveyance; cloud computing therefore exists as a service which involves the transfer of a product from one party to another. This understanding has resulted in new terms within the cloud lexicon.

In particular, IBM has identified three services resulting from the proliferation of the cloud: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).⁵ SaaS is likely most familiar to the layperson and includes online applications like Dropbox and Google Docs.⁶ These services are typically free and offer an easy means to collaborate among a few people, but nonetheless, are more suited for individualized needs.⁷ PaaS provides more extensive support solutions that primarily aid developers who do not have the

¹ John Callaham, *Research firm: Over 1 exabyte of data is now stored in the cloud*, Neowin, <http://www.neowin.net/news/research-firm-over-1-exabyte-of-data-is-now-stored-in-the-cloud> (20 Feb. 2013).

² *Id.*

³ Andrew Adkins III, *Law Firm Management in the Cloud: Leveling the Playing Field for Law Firms*, Legal Technology Institute, http://www.legal.rippe.com/LMS_Documents/cloudwp.pdf (Fall 2011) at 3.

⁴ IBM, *What is cloud? Computing as a service over the Internet*, <http://www.ibm.com/cloud-computing/us/en/what-is-cloud-computing.html>.

⁵ *Id.*

⁶ Skytap, *Demystifying SaaS, PaaS, and IaaS*, <http://www.skytap.com/blog/demystifying-saas-paas-and-iaas> (May 22, 2011).

⁷ *Id.*

resources, or need, to develop the underlying hardware that will host the application.⁸ An example of a PaaS is Facebook, which contains its own platform for web developers to create and promote content.⁹ This also means, however, that the developer is limited to the existing capabilities of the PaaS provider.¹⁰ IaaS provides the most comprehensive structure for cloud computing services and is typically used by larger, established consumer entities.¹¹ IaaS, like its name indicates, delivers the infrastructure necessary to maximize the capabilities of a dedicated full-time site without the necessity of the client having to actually physically host the requisite servers or data centers.¹²

IBM further differentiates the manner in which these services are hosted through identifying different forms of clouds: public, private, and hybrid.¹³ In public clouds, all infrastructure, e.g. hardware and software, is owned and operated by the company providing the cloud service.¹⁴ In this way, a company can harmonize its delivery of its cloud-based services so as to lower costs and streamline the user experience.¹⁵ Private cloud operators support more customizable options.¹⁶ This allows for targeted use of resources and a hedge against problems associated with multi-tenancy.¹⁷ Hybrid clouds utilize the abilities of both public clouds—accessing servers across different data networks—and private clouds—customization of infrastructure to serve specific client needs.¹⁸

Lawyers in the Cloud

With this background in mind, this paper will now turn to the effects of cloud computing within the legal field. These implications have not been lost on web developers, who have constructed a plethora of web-based SaaS platforms to cater to the legal industry.¹⁹ The duties of a legal practitioner are rarely neatly pigeon-holed into one narrow framework; rather, they encompass a gambit of responsibilities that run from the substantive to the clerical.²⁰ For that reason, technology-based solutions like cloud computing that offer an avenue for increasing an

⁸ *Id.*; IBM, *supra* note 4.

⁹ Skytap, *supra* note 6.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*; IBM, *supra* note 4.

¹³ IBM, *supra* note 4.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Stephanie Kimbro and Tom Mighell, *Popular Cloud Computing Services for Lawyers: Practice Management Online* 37:5,

http://www.americanbar.org/publications/law_practice_magazine/2011/september_october/popular_cloud_computing_services_for_lawyers.html; Adkins, *supra* note 3 at 12–13.

²⁰ American Bar Association, *Cloud Computing/Software as a Service for Lawyers*, http://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/harts_fyis/saas.html.

attorney's time spent on the merits of their clients' cases, rather than the administrative aspects of it, hold promise.

As lawyers can sometimes be on the slower end of adapting to technological change, the significance of finding software early on that promotes usability and functionality can be highly important in encouraging attorneys to return to that technology. Finding platforms that offer demo periods, promote a robust updating environment, and solicit user feedback can signal to a legal practitioner that a software company values its customer base and responds to its concerns.²¹ In regards to service, SaaS platforms typically streamline the customer experience in identifying one point of contact for support.²² Consumers should be careful to contemplate the possible lack of an established user base and support staff among these newer SaaS companies in deciding whether service issues could become problematic.²³

The cost calculation of determining whether to commit to SaaS will turn on a number of factors including, but not limited to: the number of users, monthly subscription costs that keep the product updated (versus expensive upgrade costs associated with licensed products), and other potential incidental fees.²⁴ In addition, the flexibility of SaaS platforms allows attorneys to add users and upgrade (and reduce) data storage space as the situation demands, rather than engaging in costly physical expansions that might not always be utilized fully.²⁵ Given attorneys' drive to reduce client costs, especially since the economic recession that severely impacted the legal profession during 2007 and on, the balance between costs and savings as it relates to cloud computing should not be overlooked.

Other aspects of SaaS platforms warrant consideration. Availability of the SaaS platform also carries with it its own advantages and drawbacks. Access can occur anywhere there is internet which, given today's technologically driven environment, ensures continuity across locations and devices.²⁶ By the same token, however, that also means the user is dependent upon an internet connection if they have failed to sync information from their platform to a local drive.²⁷ Security and ethics concerns arise in the cloud computing context as well, and attorneys will wish to investigate the security measures of any vendor they sign with, as well as take redundancy measures through their own backup centers.²⁸

The ethics question raises cause for a few more comments. In the fourteen jurisdictions that have addressed cloud computing, or similar technologies, all have authorized its use where the attorney exercises reasonable care in its application. Common guidelines issued to the legal profession for what constitutes 'reasonable care' across these jurisdictions include: assess the vendor's security features and terms of service to ensure the vendor maintains appropriate measures to protect client information/confidentiality, create protocols for the disposition of data upon termination of client representation and instances of breaches in data security, and consider

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ IT Law Group, *Use of Cloud Computing in a Law Office*, <http://www.itlawgroup.com/resources/articles/207-use-of-cloud-computing-in-a-law-office-managing-risk>.

²⁶ American Bar Association, *supra* note 20.

²⁷ *Id.*

²⁸ *Id.*

obtaining client consent before storing their information on the cloud.²⁹ The ABA eLawyering Task Force reached similar conclusions in 2011.³⁰

Andrew Adkins, in his paper on cloud computing within law firms, identifies several myths that may be discouraging practitioners from adapting to the cloud.³¹ First, Adkins points out the legal industry's friction to change and that, because of this anachronism, attorneys may believe cloud computing to be the next technological fad that will disappear as soon as the next one appears.³² But, in fact, an ABA survey shows that 71% of all respondents reported utilizing remote-access software.³³ That number drastically increases depending on the size of the firm, with firms housing over one-hundred attorneys indicating that 95% of its employees use remote-access for law-related tasks.³⁴ Second, some lawyers might believe that a fully integrated IT system serves their interests best.³⁵ Given the capabilities of cloud computing platforms to co-exist seamlessly within a network, this concern serves more as a distant reminder of prior decades, rather than the technologies that exist in the present.³⁶ For example, case management software, a billing client, an accounting program, and a document management system can all operate on different clouds but exist on the same computer, just as applications on a personal laptop might all access the internet but run off of different servers.³⁷

The third and final myth is that the cloud will render confidential data vulnerable to security breaches.³⁸ According to survey data, many lawyers already store data off-site for backup, and off-site is precisely where cloud data exists.³⁹ In addition, a small percentage of attorneys encrypt their emails which results in poorly protected information should the right person seek it; this indicates a fundamental lack of concern in the legal profession over security.⁴⁰ Why then is there such a fuss over cloud computing? Adkins finally stresses the reputational value of cloud computing data centers, which are rated Tier 1 through Tier 4 based on their respective security measures.⁴¹ If the appropriate due diligence is undertaken by the attorney, there is little reason to believe data security in the cloud should be a concern given the requisite research is performed in selecting a vendor and in identifying other appropriate security measures.

²⁹ American Bar Association, *Cloud Ethics Opinions Around the U.S.*, http://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html.

³⁰ eLawyering Task Force, *Guidelines for the Use of Cloud Computing in Law Practice*, American Bar Association: Law Practice Management Section, <http://meetings.abanet.org/webupload/commupload/EP024500/relatedresources/cloudcomputingguidelines05.30.2011.pdf>

³¹ Adkins, *supra* note 3 at 6.

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.* at 7.

Virtual Law Firms

As cloud computing takes root in the legal world, its capabilities also herald the arrival of virtual law firms. According to an ABA survey, five percent of lawyers in 2013 consider their practice virtual (down from seven percent in 2012).⁴² Attorney Carolyn Elefant attributes this decline to several factors: lack of sustainability due to low income producing one-off cases; the rise of platforms like LegalZoom that make it difficult for clients to understand the added value a lawyer brings to the table when they can, for example, incorporate their business themselves; the failure of state bars to uniformly adopt rules pertaining to virtual law firms, thereby creating a climate of uncertainty; and a lack of consensus among ‘virtual lawyers’ as to what it means to be one, raising the possibility that virtual lawyers believe that they are not viewed with the same regard as traditional lawyers.⁴³

The ABA survey, however, did not define virtual; rather, it asked its participants to do so. Fifty-eight percent responded that the lack of a traditional bricks-and-mortar office denoted virtual, fifty-two percent believed “minimal in-person contact with clients” dignified a practice as virtual, and forty-six percent underscored the idea that the technologies used in practice, like cloud computing, constituted a virtual law firm.⁴⁴ Regardless of how they define themselves, virtual law practitioners insist upon the procedures outlined above in the discussion on cloud computing, like ensuring adequate security measures, paying special attention to internet-based ethics requirements, and keeping costs low by reducing traditional overhead expenses.⁴⁵

Legal practice through online platforms presents an opportunity for savings in a legal climate increasingly focused on the bottom line.⁴⁶ One Washington, D.C.-based virtual law practice cut overhead costs by approximately fifty percent in comparison to traditional firms.⁴⁷ These savings are passed on to clients and help in maintaining the salaries of virtual lawyers and in recruiting new ones.⁴⁸ Consolidated service providers like DirectLaw⁴⁹ assist in the transition to the virtual legal field, and seasoned players like VLP Law Group⁵⁰ prove that acquiring high-end talent, and clients, is possible in the virtual world.

Virtual law firms also raise a number of unique issues. Acquiesce to representing a client entails risks like identity theft in the virtual world. For example, an imposter may use an online

⁴² G.M. Filisko, *Lawyers’ definitions of virtual practice vary, but not when it comes to finding success*, ABA Journal, http://www.abajournal.com/magazine/article/lawyers_definitions_of_virtual_practice_vary_but_not_when_it_comes (Apr. 2014).

⁴³ Carolyn Elefant, *Virtual Firms on the Decline—Why??*, <http://myshingle.com/2013/08/articles/trends/virtual-firms-on-the-decline-why> (Aug. 16, 2013).

⁴⁴ Filisko, *supra* note 42.

⁴⁵ *Id.*

⁴⁶ Rachel Zahorsky, *Virtual law firm plans to multiply like magic*, ABA Journal, http://www.abajournal.com/magazine/article/virtual_law_firm_plans_to_multiply_like_magic (Apr. 2013).

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ <http://www.directlaw.com/>

⁵⁰ <http://www.vlplawgroup.com/>

legal portal to seek representation and attempt to dupe a lawyer into granting him or her unauthorized privileges.⁵¹ In addition, there exists a higher risk of violating unauthorized-practice-of-law rules in instances where clients can access a virtual law firm from anywhere where an internet connection exists.⁵² Finally, some clients, and their respective situations, simply are not prepared to be processed and counseled in a virtual manner; in particular, criminal cases that involve emotionally charged parties or facts.⁵³ Virtual lawyers also acknowledge the isolation that comes with this type of practice: without a traditional office, it is difficult to build a sense of camaraderie within firms of this character.⁵⁴ This isolation also raises barriers to collaboration and advancement of the profit line if lawyers within a firm do not know they have attorneys that specialize in certain areas.⁵⁵

Conclusion

What does the future hold for cloud computing, virtual law firms, and the legal profession? Like so many answers in the legal field, it depends. The increasing costs of storing ever-increasing amounts of information may force firms to turn to housing data off-site through cloud-based services. New technologies, yet unforeseen, may render the cloud obsolete, replaced by a new form of caching materials. Virtual law firms may be looked back at five years from now as an obsolete fad, or the practice might instead become the new normal. Wherever the legal profession ventures, lawyers must do a better job of remaining attune to technological developments that not only directly impact their practice, but also to those advances which can be adapted to a legal context to improve upon client service. In the end, lawyers must be competent advocates, and in the 21st century, ignoring technology seriously infringes upon that responsibility.

⁵¹ Filisko, *supra* note 42.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*