

ETHICS: HOW CLOUD COMPUTING HAS IMPACTED THE RULES OF PROFESSIONAL CONDUCT

ABSTRACT

“The heart of a lawyer’s concern involves competently handling a client’s matter while preserving obligations for confidentiality.”¹

Each year, more attorneys implement various cloud computing technologies, such as smartphones, web-based e-mail, and cloud-based data storage, into their legal practice. Whether an attorney uses these forms of technology to deliver legal services from a traditional brick-and-mortar law office or a virtual law practice, an attorney’s ethical obligations of providing competent representation and protecting a client’s confidential information remains the same. As technology continues to shape the way attorneys deliver legal services, numerous state and national bar associations have attempted to help attorneys understand their ethical obligations in a digital age and provide them with sufficient guidance to fulfill those obligations. This Article discusses the need to embrace these efforts to ensure the legal community understands the ethical concerns associated with cloud computing technologies so that attorneys are able to take reasonable measures to protect themselves and their practice.

1. J. Daniel J. Crothers, *Electronically Stored Information: The Overview*, GAVEL, Aug. 2010, at 20.

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I. INTRODUCTION

Years ago, attorneys were most commonly found in traditional brick-and-mortar law offices, which were crowded with dozens of shelves filled with legal reporters and digests, and countless file cabinets containing droves of confidential information. During these times, attorneys were

confined within the walls of their law offices and routinely interacted with clients, colleagues, and the judiciary in person, by phone, or by letter. Today, through the use of devices like the iPhone and Blackberry, web-based e-mail such as Gmail and Yahoo! Mail, and products such as SharePoint, Google Docs, or Dropbox, attorneys have been able to step outside the walls of the traditional brick-and-mortar law offices and revolutionize not only the way clients are able to access legal services, but how those services are performed and delivered.²

Each year, attorneys continue to move away from traditional legal offices and transition to virtual law practices, which can be based from any location where an internet connection is available.³ From these virtual law practices, various forms of cloud computing are used to communicate with clients and colleagues, draft work-product, electronically file court documents, and manage legal information.⁴ As a result of the increased use of cloud computing technology, attorneys have been able to reduce costs and legal fees, increase efficiency, deliver various unbundled legal services, and, perhaps most importantly, allow for increased access to justice.⁵ Despite the many benefits derived from virtual law practice, and the cloud computing technology it relies on, there are also many unique ethical and security risks associated with this technology that numerous state bar associations have attempted to address.⁶

The state bar associations, however, are not the only entities concerned with the various ethical and security dilemmas prompted by the increased usage of the various cloud computing technologies in the legal profession. In 2009, the American Bar Association (ABA) created the ABA Commission on Ethics 20/20 (the 20/20 Commission) in order to determine if the Model Rules of Professional Conduct were keeping pace with the

2. See generally NEIL RICKMAN & JAMES M. ANDERSON, KAUFFMAN-RAND INST. FOR ENTREPRENEURSHIP PUB. POLICY, INNOVATION IN THE PROVISIONS OF LEGAL SERVICES IN THE UNITED STATES: AN OVERVIEW FOR POLICY MAKERS 3-4 (2011); Debra Cassens Weiss, *Some Brick-and-Mortar Law Firms Also Offer Cheaper, Web-Based Services*, A.B.A. J. (Nov. 8, 2012, 6:00 AM), http://www.abajournal.com/news/article/some_bricks-and-mortar_law_firms_also_offer_cheaper_web-based_services/.

3. See A.B.A. LEGAL TECH. RESEARCH CTR., 2012 AMERICAN BAR ASSOCIATION LEGAL TECHNOLOGY SURVEY: EXECUTIVE SUMMARY 99 (2012) [hereinafter A.B.A. TECH. SURVEY REPORT]. In 2012, 7% of the attorneys surveyed described their practice as a “virtual law office” compared to 3% in 2011. *Id.*

4. STEPHANIE KIMBRO, VIRTUAL LAW PRACTICE: HOW TO DELIVER LEGAL SERVICES ONLINE 4-6 (2010).

5. *Id.*; see also STEPHANIE KIMBRO, VIRTUAL LAW PRACTICE: RISK MANAGEMENT HANDOUTS OF LAWYERS MANUAL 2 (2010).

6. See discussion *infra* Part III.A.

rapidly evolving legal profession.⁷ After a three-year study, the 20/20 Commission submitted numerous Resolutions and Reports to the ABA House of Delegates, including a variety of proposed amendments to the Model Rules of Professional Conduct.⁸ Despite the proposals set forth in the Resolutions presented to the ABA House of Delegates, the 20/20 Commission emphasized that because of rapid technological advances, it is likely the Committee will be forced to continually reexamine the Model Rules and related policies for years to come.⁹

Although many state bar associations and the ABA have taken proactive stances to ensure that their respective rules of professional conduct are not outpaced by the ever-changing technologies employed by virtual law practices, not all states have been as responsive or comprehensive in their efforts to do so.¹⁰ For example, in North Dakota, outside of two ethics opinions issued by the State Bar Association of North Dakota (SBAND) concerning attorneys' use of unencrypted e-mail and online data storage, local attorneys have minimal guidance as to the proper ways to ethically and securely integrate various cloud computing technologies into their legal practices.¹¹

This Note suggests the North Dakota Rules of Professional Conduct have become outdated and outpaced by the technologies associated with virtual law practice, and no longer provide the proper and necessary guidance for the state's legal community. Part II of this Note analyzes the legal community's increased usage of three specific forms of cloud computing – smartphones, web-based e-mail, and cloud-based data storage – and how this usage not only creates various benefits to both attorneys and clients, but numerous ethical and security concerns as well. Part III describes the legal community's response to the emerging trends of virtual law practice on both the state and national level. Part IV discusses North Dakota's current rules of professional conduct and urges the state to adopt the ABA's newly amended Model Rules of Professional Conduct.

7. ABA COMM'N ON ETHICS 20/20, INTRODUCTION AND OVERVIEW 1 (2012) [hereinafter 20/20 COMMISSION INTRODUCTION], available at http://www.americanbar.org/content/dam/aba/administrative/ethics_2020/20120508_ethics_20_20_final_hod_introduction_and_overview_report_authcheckdam.pdf.

8. See *id.* at 1-3, 7-13.

9. *Id.* at 13.

10. See discussion *infra* Part IV.

11. See State Bar Assoc. of N.D. Ethics Comm., Op. 99-03, at 1 (1999) (discussing the use of an online data backup service); State Bar Assoc. of N.D. Ethics Comm., Op. 97-09, at 1 (1997) (discussing the use of unencrypted web-based e-mail).

II. THE ERA OF VIRTUAL LAW PRACTICE

Although there are numerous ways a person might define the confines of a “virtual law practice,” a simple definition would be “a professional law practice that exists online through a secure portal and is accessible to both the client and the lawyer anywhere the parties may access the Internet.”¹² On the other hand, legal scholars have also classified a virtual law practice as a form of “eLawyering” – which is defined as “all the ways in which lawyers can do their work using the Web and associated technologies.”¹³ Regardless of the exact definition, all virtual law practices delivering online legal services rely on the use of various forms of cloud computing technology.¹⁴

Just as there are numerous ways to explain or define a virtual law practice, there are numerous definitions of cloud computing. For example, a Pennsylvania Bar Association ethics opinion described cloud computing as “merely ‘a fancy way of saying stuff’s not on your computer.’”¹⁵ For a more technical definition, others have defined cloud computing as “[i]nternet-based computing in which large groups of remote servers are networked so as to allow sharing of data-processing tasks, centralized data storage, and online access to computer services or resources.”¹⁶ One type of cloud computing technology, which is used to facilitate virtual law practice, is software as a service (SaaS).¹⁷ Some examples of cloud computing applications and software that are relied upon by both traditional brick-and-mortar law firms and virtual law practices are iPhones or BlackBerrys, web-based e-mail such as Gmail and Yahoo! Mail, legal research databases such as Lexis and Westlaw, web conferencing programs such as Skype and FaceTime, and electronic document filing (e-filing).¹⁸ According to the ABA’s most recent Technology Survey Report, the

12. KIMBRO, *supra* note 4, at 4.

13. *Id.* (quoting Richard Granat & Marc Lauritsen, *The Many Faces of E-Lawyering*, L. PRAC., Jan-Feb. 2004, at 36).

14. *See id.* at 4-6.

15. Penn. Bar Assoc. Comm. on Legal Ethics & Prof’l Responsibility, Formal Op. 2011-200, at 1 (2011) (describing the ethical obligation for attorneys using cloud computing technologies).

16. *Cloud Computing Definition*, DICTIONARY, <http://dictionary.reference.com/browse/cloud+computing?s=t> (last visited Jan. 26, 2013).

17. KIMBRO, *supra* note 4, at 2. “SaaS” is defined as “a software delivery method that provides access to software and its functions remotely as a Web-based service.” *Software as a Service (SaaS) Definition*, WEBOPEDIA, <http://www.webopedia.com/TERM/S/SaaS.html> (last visited Feb. 22, 2013).

18. KIMBRO, *supra* note 4, at 2

number of respondents who have implemented a web-based software or solution for law-related tasks continues to increase.¹⁹

This Part begins by detailing the increased usage and benefits of three specific forms of cloud computing technology utilized in the delivery of virtual legal services – smartphones, web-based e-mail, and online data storage.²⁰ Section B discusses the various ethical and security risks that accompany the usage of the various forms of cloud computing technology. Specific attention is given to the risks associated with an attorney’s duties to protect the confidential information and to remain fully competent in all methods and procedures used to represent a client.²¹

A. THE EMERGENCE OF TECHNOLOGICALLY ENHANCED LEGAL PRACTICE

Each year since 1990, the ABA has conducted the Legal Technology Survey Report in order to educate legal professionals on the increased uses and trends of technology in the legal profession.²² In 2012, over 75,000 attorneys in private practice were asked “whether they would describe their practice as a virtual law practice.”²³ Seven percent of respondents answered “Yes,” 91% answered “No,” and 2% were unsure.²⁴ Compared to the same survey conducted in 2011, the number of respondents who considered their firm to be a virtual law practice doubled over the past year.²⁵

Although the number of attorneys who have transitioned completely to a virtual law practice is relatively low, many attorneys have integrated various cloud computing technologies used by virtual law practices into

19. A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 52. Since 2011, the number of respondents who reported using such cloud computing technology has increased approximately 5%. Today, the number of respondents has increased to 21%. *Id.*

20. *See* discussion *infra* Part II.A. The focus of this Note is limited to the use of these three specific types of cloud computing technologies throughout the legal profession.

21. *See* discussion *infra* Part II.B.

22. A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 5.

Beginning in 2001 the survey targeted lawyers exclusively. Like the last eleven survey reports, the 2012 reports are segmented by technology, and rely on the number of lawyers in a firm as an additional metric on almost all questions. The final survey reports are published in six-volumes – five focus on a distinct environment or area of technology use and a sixth focuses on baseline law firm technology

Id. at 6.

23. *Id.* at 99.

24. *Id.* at 99-100. The 7% of respondents who described their firms as virtual law practices were asked what they believed was the defining characteristic of a virtual law practice. Sixty percent cited a “‘lack of traditional physical office,’ 44% ‘minimal in-person contact with clients,’ 33% ‘use of web-based tools for client interaction,’ 23% ‘use of a secure client portal/extranet,’ 21% ‘offering unbundled legal services,’ and 2% chose the ‘other’ category.” *Id.*

25. *Id.* In 2011, 3% of respondents described their practice as a virtual law practice. *Id.*

their traditional brick-and-mortar law offices, enabling them to enjoy the numerous benefits associated with such technology.²⁶ For example, the most recent ABA Technology Survey Report revealed increased usage of smartphones, web-based e-mail, and cloud-based data storage in the delivery of legal services.²⁷ As a result of this increased usage of various forms of cloud computing technology, attorneys around the country have been able to lower overhead costs, expand their client base, increase efficiency in handling large volumes of data, improve production and communication, and become increasingly mobile.²⁸

1. *Smartphone Use*

Through the use of cloud computing technology, smartphone users are now able to access all of their applications, data, and communications on remote servers no matter where they are.²⁹ As a result, smartphone ownership has skyrocketed throughout the country.³⁰ According to research conducted by the Pew Internet & American Life Project, as of February 2012, 46% of American adults own a smartphone.³¹ Since 2011, almost every major American demographic group has experienced increases in smartphone ownership.³² In addition to the growing trend of smartphone ownership among the public, various professions have also seen drastic increases in smartphone usage throughout the years,³³ especially the legal profession.³⁴

According to the 2012 ABA Technology Survey Report, “[88%] of [attorneys] report[ed] the *availability* of smartphones at their firms” and “[76%] of [attorneys] report[ed] *personally using* smartphones for law-

26. KIMBRO, *supra* note 4, at 17.

27. See A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 38-39, 108, 157.

28. KIMBRO, *supra* note 4, at 16-17; Penn. Bar Assoc. Comm. on Legal Ethics & Prof'l Responsibility, at 2-3 (2010).

29. Steve Hamm, *How Cloud Computing Will Change Business*, BLOOMBERG BUSINESSWEEK (June 04, 2009), http://www.businessweek.com/magazine/content/09_24/b4135042942270.htm.

30. AARON SMITH, PEW RESEARCH CTR., 46% OF AMERICAN ADULTS ARE SMARTPHONE OWNERS 2 (2012), *available at* <http://pewinternet.org/~media/Files/Reports/2012/Smartphone%20ownership%202012.pdf>.

31. *Id.* In 2011, 35% of American adults owned a smartphone. *Id.*

32. *Id.* at 3. “[M]en and women, younger and middle-aged adults, urban and rural residents, the wealthy and the less well-off . . . experienced a notable uptick in smartphone penetration over the last year . . .” *Id.*

33. See generally Sindya N. Bhanoo, *Doctors and Medical Students Embrace Smartphones*, WASH. POST (May 19, 2009), <http://www.washingtonpost.com/wp-dyn/content/article/2009/05/18/AR2009051802234.html>.

34. See generally A.B.A. TECH. SURVEY REPORT, *supra* note 3 (describing trends in smartphone and cellphone usage among attorneys).

related tasks”³⁵ In addition, the survey revealed that the availability and usage of smartphones for law-related tasks correlates with the size of the firms. For example, 83% of respondents from firms employing 500 attorneys or more reported using smartphones for law-related tasks compared to 77% in firms consisting of 2 to 9 attorneys.³⁶

In addition to the increase in smartphone availability throughout the legal profession, the ways in which attorneys are incorporating smartphone usage into their practices are evolving as well.³⁷ Through the use of smartphones, attorneys are now able to check work-related e-mail, communicate with clients, conduct legal research, and perform a variety of other law-related tasks without having to be in an office.³⁸ For example, the ABA Technology Survey Report shows that 74% of the attorneys “who report practicing in a courtroom” use their smartphones to send and check e-mail, update their calendars, conduct real-time communications, and access the Internet while they are in the courtroom.³⁹ As technological advances continue to take place, the smartphone uses employed by attorneys to deliver legal services will undoubtedly continue to evolve.

2. *Web-Based E-mail*

Currently, there are no uniform statistics regarding the exact number of users of the different web-based email providers. However, recent studies have suggested that Windows Live Hotmail, Gmail, and Yahoo! Mail serve more than one billion users worldwide.⁴⁰ Although web-based e-mail has become incredibly popular among the public, these web-based email providers are not as widely used in the legal profession, even in law firms dubbed “virtual law practices.”⁴¹

In 2012, the ABA Technology Survey Report analyzed the various uses of e-mail throughout the legal profession and chronicled the differences between larger firms and smaller firms.⁴² The ABA report revealed 99% of

35. *Id.* at 34 (emphasis in original). In 2011, 71% of respondents reported personally using smartphones for law-related tasks. *Id.*

36. *Id.* “Eighty-one percent of respondents from firms of 100 or more [attorneys] report personally us[ing] . . . smartphones for law-related tasks . . . followed by 78% from firms of 10-49 attorneys, 77% from firms of 2-9 [attorneys,] and 67% solo [attorneys].” *Id.*

37. *See id.* at 68, 136-37.

38. *See id.* at 136-37.

39. *Id.* at 68. Sixty-eight percent of the respondents check for new e-mail, 64% send e-mail, 49% use their smartphones’ calendars, 34% conduct real-time communications, 33% access the Internet, 16% conduct online research, and 7% access firm networks. *Id.*

40. Mark Brownlow, *Email and Webmail Statistics*, EMAIL MARKETING REPORTS (Dec. 2012), <http://www.email-marketing-reports.com/metrics/email-statistics.htm>.

41. *See* A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 108

42. *Id.*

respondents personally used e-mail software for law-related tasks but only 13% of those respondents stated that web-based e-mail was available at their law firms.⁴³ In addition, the ABA survey also revealed that 19% of respondents reported using web-based e-mail in order to check law-related e-mail while away from their primary workplaces.⁴⁴ An even smaller number reported using web-based e-mail as their primary workplace e-mail.⁴⁵

Despite the seemingly low number of attorneys using web-based e-mail, especially among larger firms, solo attorneys have reported increased usage of web-based email over the last two years.⁴⁶ Since 2010, the number of solo attorneys using web-based e-mail services for their primary work address has increased from 13% to 19%.⁴⁷ Although larger firms do not tend to use Gmail or other web-based e-mail services, many smaller firms and solo attorneys are drawn to the storage capabilities of these services and the ability to integrate with other free and low cost products.⁴⁸ As a result, it seems likely that these web-based e-mail services will continue to exist in the legal profession throughout the coming years.

3. *Cloud-Based Data Storage*

As the legal profession continues to become more mobile, the ability to access various forms of work product has become incredibly crucial.⁴⁹ Whether an attorney or law firm wishes to access or retrieve a case file, a brief, or any other data at any time and from any location, these tasks can be accomplished through the use of the numerous cloud-based data storage services.⁵⁰ Examples of cloud-based data storage services commonly used by legal professionals are Dropbox, Mozy, Carbonite, and iCloud.⁵¹

43. *Id.* at 40.

44. *Id.* at 152. Eighty-one percent of respondents claimed they used smartphones to check work-related e-mail while away from their primary workplace, 26% used Outlook Web Access, 26% used virtual private networks (VPNs), and 24% used remote access software. *Id.*

45. *Id.* at 108. In 2011 and 2012, 6% of respondents reported using web-based e-mails as their primary work e-mail address. *Id.*

46. *Id.*

47. *Id.* This figure is comprised of 19% of solo attorneys, 4% of attorneys employed by firms of 2-9 attorneys, and 0% of attorneys employed by firms of 10-49 attorneys and firms of 100 or more attorneys. *Id.*

48. *See generally* Carolyn Elefant, *Can an E-Mail Address Make a Negative Impression?*, LEGAL BLOG WATCH (Aug. 12, 2009, 1:52 PM), http://legalblogwatch.typepad.com/legal_blog_watch/2009/08/can-an-email-address-make-a-negative-impession.html.

49. *See* Maria Kantzavelos, *Legal Technology: Taking Your Practice to the Cloud*, 100 ILL. B.J. 188, 189 (2012).

50. *Id.* at 188.

51. *Id.* at 189; *see also* Stephanie L. Kimbro & Tom Mighell, *Popular Cloud Computing Services for Lawyers: Practice Management Online*, L. PRAC., Sept.-Oct. 2011, at 30, 34.

According to the ABA's Technology Survey Report, the availability and usage of online storage has increased substantially in the last two years.⁵² Since 2010, attorneys who reported that online storage is *available* at their firms have increased by 8%.⁵³ In addition, the number of attorneys who reported personally using online data storage for law-related tasks rose from 37% in 2010, to 45% in 2012.⁵⁴ As technology continues to evolve and attorneys become more familiar with cloud data storage and its many benefits, legal experts claim that this technology is "something that can[not] be avoided."⁵⁵

B. THE REALITIES OF INTEGRATING CLOUD COMPUTING TECHNOLOGY IN THE LAW OFFICE

As attorneys around the country continue to recognize the numerous and ever-expanding benefits of using cloud computing technologies to deliver legal services, it has become imperative that attorneys understand the unique ethical and security concerns associated with the use of cloud technology.⁵⁶ These concerns apply to the latest cloud computing technologies, as well as other current technology such as laptops, public wireless networks, and USB drives, which have been utilized in the legal profession for years.⁵⁷ The following section not only focuses on an attorney's duty to remain competent in the representation of their clients and to preserve the confidentiality of information while using the various cloud computing technologies, but the difficulties attorneys may face in their efforts to fulfill these duties.

1. *Technological Competence Required*

According to Rule 1.1 of the ABA's Model Rules of Professional Responsibility, "[a] lawyer shall provide competent representation to a client."⁵⁸ "Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the

52. A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 38.

53. *Id.*

54. *Id.*

55. Kantzavelos, *supra* note 49, at 188.

56. David G. Ries, *Cybersecurity for Attorneys: Understanding the Ethical Obligations*, LAW PRACTICE TODAY (Mar. 2012), http://www.americanbar.org/publications/law_practice_today_home/law_practice_today_archive/march12/cyber-security-for-attorneys-understanding-the-ethical-obligations.html.

57. *Id.*

58. MODEL RULES OF PROF'L CONDUCT R. 1.1 (2006), *available at* http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_1_competence.html.

representation.”⁵⁹ In order to comply with Rule 1.1, the commentary of the rule suggests “a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements”⁶⁰ As a result, an attorney who chooses to integrate various forms of cloud computing technology into his or her virtual law practice or traditional brick-and-mortar practice is responsible for obtaining the requisite level of expertise with the respective technology. If the attorney is unable to do so, that attorney is required to seek out qualified individuals who can ensure competency.⁶¹

Although this requirement seems fairly easy to satisfy, many of the latest cloud computing technologies, such as cloud-based data storage, can be highly complex and may be beyond some attorneys’ comprehension. Therefore, before an attorney chooses to use a form of cloud computing technology, that attorney must take various precautions to ensure the service is adequate and conducive to practicing law.⁶² For example, if an attorney chooses to store client information on an online data storage service like Dropbox or Barracuda Networks, the attorney needs to carefully examine the respective Service Level Agreement (SLA) and understand how this agreement could impact the delivery of legal services.⁶³

According to experts, there are a variety of inquiries an attorney should make when examining a service’s SLA in order to ensure their legal practice is not negatively impacted when such technology is implemented into their practice.⁶⁴ First, in order to determine what happens to stored data when the relationship between the law firms and service provider is terminated, an inquiry must be made into the service provider’s “[d]ata retention and return polic[y].”⁶⁵ Next, an attorney or law firm must understand how the service provider may respond to “government and civil search and seizure actions.”⁶⁶ Third, attorneys and law firms are advised to identify any agreements between the service provider and any third parties who may be responsible for maintaining or supporting the servers storing

59. *Id.*

60. *Id.* cmt. 8.

61. See David G. Ries, *Safeguarding Confidential Data: Your Ethical and Legal Obligations*, L. PRAC., July- Aug 2010, at 50.

62. See KIMBRO, *supra* note 4, at 8.

63. See *id.* at 8, 60-61.

64. *Id.* at 60-61.

65. *Id.* at 50, 62.

66. *Id.* at 50.

the data.⁶⁷ Fourth, an attorney or law firm should locate where the service provider's server is located in order to determine whether the relationship is subject to international laws. Fifth, it is extremely important to ensure the service provider has the necessary means and safeguards to prevent against confidentiality breaches.⁶⁸ By carefully researching and examining the SLA's of prospective software programs, attorneys may be better able to ensure they are not at risk of being negatively impacted through their use of such technology in their legal practice.⁶⁹

Although these inquiries may help an attorney reduce the risks associated with integrating various cloud computing technologies and services into their legal practice, these inquiries alone do not satisfy the duty of an attorney to remain competent. Under the competence rule, attorneys are required to employ daily practices to ensure that he or she obtains the requisite knowledge and skill to adequately and ethically deliver legal services to clients.⁷⁰ If an attorney is unable to remain competent with the changes in how legal services are delivered, the attorney should seek the guidance of skilled technical support staff that are able to ensure training, security awareness, compliance; and conduct periodic audits and updates.⁷¹ By employing qualified support staff to assist in the integration of technology, "technologically illiterate" attorneys can ensure they possess the "knowledge, skill, thoroughness and preparation" required by Rule 1.1 of the ABA Model Rules of Professional Conduct.⁷²

2. *Cloud Computing Confidentiality*

Whether an attorney stores confidential information in the basement of a traditional brick-and-mortar firm or on a cloud-based server like Carbonite or Mozy, that attorney is responsible to uphold the duty of confidentiality set forth by Model Rule 1.6.⁷³ Model Rule 1.6 states, "[a] lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent."⁷⁴ A lawyer is also required to

67. *Id.* at 51.

68. *Id.* at 53, 61.

69. *See id.* at 61-62.

70. Kantzavelos, *supra* note 49, at 193.

71. *See* Ries, *supra* note 61. According to the 2012 ABA Technology Survey Report, 35% of respondents reported that their firms do not have technical support staffs. A.B.A. TECH. SURVEY REPORT, *supra* note 3, at 10.

72. Kantzavelos, *supra* note 49, at 193.

73. *See* MODEL RULES OF PROF'L CONDUCT R. 1.6 (2006), available at http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_6_confidentiality_of_information.html.

74. *Id.* 1.6(a).

“make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.”⁷⁵ The commentary to the rule illustrates that attorneys must make “reasonable efforts” to safeguard client information and prevent against unauthorized access to confidential communications to avoid violating the duty of confidentiality.⁷⁶ The relevant factors used to determine whether an attorney has made “reasonable efforts” to protect confidentiality include: “the sensitivity of the information, the likelihood of disclosure if additional safeguards are not employed, the cost . . . [and] difficulty of implementing the safeguards, and the extent to which the safeguards adversely affect the lawyer’s ability to represent clients.”⁷⁷

As the popularity of cloud computing technology and its many uses continues to increase, threats to information stored on computers, mobile devices, and information systems increase as well.⁷⁸ These threats range from “lost or stolen laptops or mobile devices, to dishonest, disgruntled, or untrained insiders, to sophisticated hacking attacks.”⁷⁹ According to Scott Blackmer, founding partner of the Information Law Group, “[c]yber espionage is perhaps a more widespread and pressing concern” and is affecting attorneys with “increasing frequency.”⁸⁰ According to one expert, approximately “80 major law firms were hacked” in 2011.⁸¹ As a result the FBI met with major law firms to warn them that their valuable corporate information was at risk of being compromised and to help reduce future attacks.⁸²

75. *Id.* 1.6(c).

76. *Id.* cmt. 18-19.

77. *Id.* cmt. 18.

78. See Ries, *supra* note 61; see also *Consumer Privacy and Protection in the Mobile Marketplace: Hearing Before the Subcomm. on Consumer Protection, Product Safety, and Insurance of the S. Comm. on Commerce, Science, and Transportation*, 112th Cong. 289 (2011). In 2011, the United States Senate Subcommittee on Consumer Protection, Product Safety and Insurance addressed the importance of ensuring that consumers’ private information is adequately safeguarded. *Id.*

79. See Ries, *supra* note 61.

80. Alejandro Martinez-Cabrera, *Law Firms are Lucrative Targets of Cybercams*, S.F. CHRON. (Mar. 20, 2010), <http://www.sfgate.com/business/article/Law-firms-are-lucrative-targets-of-cybercams-3269938.php>; see also Catherine Dunn, *U.S. Businesses See Uptick in Cyberattacks by Russia, China*, CORP. COUNS. (Nov. 7, 2011), http://www.law.com/corporate_counsel/PubArticleCC.jsp?id=1202525004831 (discussing the “[e]lectronic economic espionage and the plundering of trade secrets” conducted by Russian and Chinese actors).

81. Martha Neil, *Corporate Clients Should Ask Specific Questions About Law Firm Computer Security, Experts Say*, A.B.A. J. (Feb. 21, 2012), http://www.abajournal.com/news/article/corporate_clients_must_ponder/?utm_source=maestro&utm_medium=email&utm_campaign=tech_monthly.

82. *Id.*

Although it is practically impossible for attorneys – and even for the largest firms – to mitigate every security risk associated with storing confidential information and communications electronically, there are certain measures attorneys can take to ensure they have made reasonable efforts to safeguard client information and prevent against unauthorized access to confidential communications.⁸³ According to Stroz Friedberg, a digital risk consultancy, law firms should take a “risk-oriented approach to protecting client information.”⁸⁴ In other words, a firm should assume their network will be hacked and attempt to identify which information is most at risk.⁸⁵ By anticipating what information is most likely to be at risk of a cyberattack, a firm will be able to segregate that information and ensure that it is highly protected.⁸⁶ Additional security measures include: secure use authentication, reasonable monitoring to detect unauthorized access, encryption of all transmitted files containing highly sensitive information, up to date security software, and adequate training and education of employees.⁸⁷ By implementing these security measures, attorneys are more likely to fulfill their obligation, as prescribed by Model Rule 1.6, to take “reasonable efforts” to safeguard client information and prevent against unauthorized access to confidential communications.

III. THE LEGAL COMMUNITY’S RESPONSE TO CLOUD COMPUTING TECHNOLOGY

Due to recent advances in cloud computing technology, the ways attorneys are able to perform and deliver legal services have drastically changed.⁸⁸ As a result, both state and national bar associations have taken proactive stances in ensuring their respective rules of professional conduct are not outpaced by the ever-changing technologies employed by attorneys to provide various legal services.⁸⁹ This section analyzes the states’ attempts to address the numerous ethical concerns associated with integrating cloud computing technology and the delivery of legal services.⁹⁰

83. Catherine Dunn, *How Secure are Law Firms’ Computer Networks*, CORP. COUNS. (Feb. 21, 2012), http://www.law.com/corporatecounsel/PubArticleCC.jsp?id=1202542995472&hubType=Top%2520Story&How_Secure_Are_Law_Firms_Computer_Networks&slreturn=20130104234326.

84. *Id.*

85. *Id.*

86. *Id.*

87. *See* Ries, *supra* note 61, at 51-52; *see also* Dunn, *supra* note 83 (discussing further security measures needed to protect law firms from cyberattacks).

88. *See* KIMBRO, *supra* note 4, at 1-2.

89. *See* discussion *infra* Part III.A-B.

90. *See* discussion *infra* Part III.A.

Then, this section discusses the ABA's recent decision to amend the Model Rules of Professional Conduct to help attorneys understand the unique ethical concerns associated with technology so that they are able to take necessary and reasonable measures to protect themselves and their practice.⁹¹

A. STATES' ATTEMPTS TO ADDRESS ETHICAL DILEMMAS OF CLOUD-BASED LEGAL PRACTICE

Although there are numerous ethical concerns prompted by integrating cloud computing technologies into legal practice, this section focuses specifically on states' attempts to clarify that an attorney's duty to remain competent and to protect the confidentiality of information applies equally to electronic data sent or stored by cloud computing technology. In order to accomplish this, states have issued formal and informal ethics opinions to address the use of the various cloud computing technologies and to direct attorneys to take reasonable precautions to protect electronically stored and transmitted data.⁹² However, in doing so, each state has varied in determining what qualifies as "competent and reasonable measures" to safeguard client data.⁹³ These opinions have offered compelling reasons why using cloud-based software and storage is permissible provided that attorneys meet the existing reasonable care standards and continue to do so as technology evolves.

1. *Arizona*

In 2005, the State Bar of Arizona's Committee on the Rules of Professional Conduct (the "Arizona Committee") issued Opinion No. 05-04 to address the ethical concerns related to attorneys' use of various technologies, and the necessary steps attorneys must make to safeguard electronic information.⁹⁴ According to the Arizona Committee, "an attorney or law firm is obligated to take competent and reasonable steps" to assure that the confidential information in electronic form is not lost, destroyed or disclosed through theft or inadvertence.⁹⁵ In order to satisfy the "competent and reasonable steps" requirement, an attorney must be

91. See discussion *infra* Part III.B.

92. See discussion *infra* Part III.A.1-3; see also Prof'l Ethics of the Fla. Bar, Op. 06-1 (2006); Me. Bd. of Overseers of the Bar of Prof'l Ethics, Op. 194 (2008); N.J. Comm. on Prof'l Ethics, Op. 701 (2006); Nev. Standing Comm. on Ethics & Prof'l Responsibility, Formal Op. 33 (2006); Va. Standing Comm. on Legal Ethics, Op. 1818 (2005).

93. See Ries, *supra* note 61.

94. State Bar of Ariz., Op. 05-04 (2005) (discussing the confidentiality concerns associated with electronically storing confidential information).

95. *Id.*

competent enough to “evaluate the nature of the potential threat to the client’s electronic files and to evaluate and deploy appropriate computer hardware and software to accomplish that end.” If an attorney lacks the required competence, the attorney must employ the services of an expert consultant that possess the requisite competence.⁹⁶

In 2009, the Arizona Committee issued another opinion dealing with “online file storage and retrieval sytem[s]” and provided a more detailed discussion regarding the definition of “competent and reasonable” measures.⁹⁷ According to Opinion 09-04, “competent and reasonable” measures include the use of secure socket layer (SSL) protocol, firewalls, password protection, and encryption.⁹⁸ In addition, the Arizona Committee emphasized that as technology continues to advance, “lawyers should periodically review security measures in place to ensure that they still reasonably protect the security and confidentiality of the clients’ documents and information.”⁹⁹

2. *New York*

In 2010, the New York State Bar Association Committee on Professional Ethics (the New York Committee) issued Opinion 842 in order to address the ethical concerns associated with the use of an online storage provider to store client confidential information.¹⁰⁰ According to the New York Committee, an attorney may utilize an online data storage system to store confidential information provided that attorney “takes reasonable care to ensure that confidentiality will be maintained in a manner consistent with the [attorney’s] obligations under Rule 1.6.”¹⁰¹ In order to satisfy the “reasonable care” requirement, the New York Committee stated that attorneys are required to “stay abreast of technological advances” and should investigate the online data storage provider’s security policies and recoverability methods, employ adequate technology to protect against “reasonably foreseeable attempts to infiltrate the stored data,” and to ensure the provider’s ability to remove or transfer the data if the relationship is terminated.¹⁰² However, the New York Committee made it clear that

96. *Id.*

97. State Bar of Ariz., Op. No. 09-04 (2005) (discussing the ethical concerns associated with an online file storage and retrieval system for client access to documents).

98. *Id.*

99. *Id.*

100. N.Y. State Bar Assoc. Comm. on Prof’l Ethics, Op. 842 (2010) (discussing the use of an online storage provider to store client confidential information).

101. *Id.*

102. *Id.*

“exercising ‘reasonable care’ under Rule 1.6 does not mean that the lawyer guarantees that the information is secure from *any* unauthorized access.”¹⁰³

3. *Pennsylvania*

Since 2010, the Pennsylvania Bar Association Committee on Legal Ethics and Professional Responsibility (the Pennsylvania Committee) has issued numerous opinions regarding an attorney’s use of various cloud computing technologies and have attempted to address the ethical concerns associated with such technology.¹⁰⁴ For example, according to Informal Opinion 2010-060, attorneys are not prohibited from using cloud based case management programs or smartphones that are synchronized through “the cloud” as long as appropriate measures are taken to ensure compliance with the Rules of Professional Conduct.¹⁰⁵ In this case, the Pennsylvania Committee found appropriate measures included: regularly “backing up data,” “installing [] firewall[s], . . . [and] avoiding inadvertent disclosures.”¹⁰⁶

In 2011, the Pennsylvania Committee issued Formal Opinion 2011-200 in an effort to address the ethical concerns of several types of cloud computing technology, such as smartphones, web-based e-mail, online data storage, software as a service (SaaS), and platform as a service (PaaS).¹⁰⁷ Opinion 2011-200 held “[i]n the context of ‘cloud computing,’ an attorney must take reasonable care to make sure that the conduct of the cloud computing service provider conforms to the rules to which the attorney . . . is subject.”¹⁰⁸ Here, “reasonable care for ‘cloud computing’” was determined to encompass regularly backing up data, installing a firewall, encrypting electronic records containing confidential information, and implementing audit procedures to monitor accessibility of information.¹⁰⁹

103. *Id.* (emphasis in original).

104. *See* Penn. Bar Assoc. Comm. on Legal Ethics & Prof’l Responsibility, Formal Op. 2010-200 (2010) (discussing the confidentiality concerns associated with virtual law offices); Informal Op. 2010-060 (2010) (discussing cloud computing technology).

105. Penn. Bar Assoc. Comm. on Legal Ethics & Prof’l Responsibility, Informal Op. 2010-060, at 4 (2010).

106. *Id.* at 3.

107. Penn. Bar Assoc. Comm. on Legal Ethics & Prof’l Responsibility, Formal Op. 2011-200, at 1 (2011).

108. *Id.* at 8.

109. *Id.*

B. AMENDMENTS TO THE ABA MODEL RULES OF PROFESSIONAL CONDUCT

The state bar associations are not alone in their attempts to address the ethical dilemmas associated with an attorney's use of the various forms of cloud computing to conduct their legal services. In August 2009, the President of the American Bar Association (ABA) created the 20/20 Commission and charged the Commission to engage in "a three-year study of how globalization and technology are transforming the practice of law and how the regulation of attorneys should be updated in light of those developments."¹¹⁰ Specifically, the 20/20 Commission was directed to conduct "a plenary assessment of the ABA Model Rules of Professional Conduct and related ABA policies," and was charged with the responsibility of "protecting the public; preserving the core professional values of the American legal profession; and maintaining a strong, independent, and self-regulated profession."¹¹¹

In order to ensure "transparency, broad outreach[,] and opportunities for frequent input into [the 20/20 Commission's] work," the 20/20 Commission went to great lengths to gather as much information as possible from the public and legal community.¹¹² For example, the Commission gathered insight from the bar, judiciary, and the public by holding a variety of open meetings, public hearings and roundtables, various webinars, and accepted hundreds of written and oral comments.¹¹³ In addition, the 20/20 Commission also delivered more than one hundred presentations about its work and findings to "numerous ABA entities, and local, state, and international bar associations"¹¹⁴ and created seven "Working Groups" consisting of members from various ABA and outside entities.¹¹⁵

110. 20/20 COMMISSION INTRODUCTION, *supra* note 7, at 1.

111. *Id.*

112. *Id.* at 2.

113. *Id.* at 2-3.

114. *Id.* at 3. In addition to presenting to various "local, state, and international bar associations[.]" the Committee has also offered presentations to "the Conferences of Chief Justices, the House of Delegates, ABA Board of Governors, [and] the National Conference of Bar Presidents." *Id.*

115. *Id.* Among the entities were

the ABA Standing Committee on Ethics and Professional Responsibility, ABA Standing Committee on Professional Discipline, the ABA Standing Committee on Client Protection, ABA Standing Committee on Delivery of Legal Services, ABA Section of International Law, ABA Section of Litigation, ABA Section of Legal Education and Admissions to the Bar, ABA Section of Real Property, Trust and Estate Law, ABA Task Force on International Trade in Legal Services, ABA General Practice, Solo and Small Firm Division, ABA Young Lawyers Division, ABA

In 2012, the Committee presented numerous proposals to the ABA House of Delegates in order to continue to provide guidance for attorneys regarding their ethical obligations to protect clients' confidential information when employing the use of the various cloud computing technologies.¹¹⁶ As part of these proposals, the Committee recommended amendments to the Model Rules of Professional Conduct and the respective commentary.¹¹⁷ These amendments to the Model Rules of Professional Conduct were designed to update the language of the Model Rules "to reflect the realities of a digital age,"¹¹⁸ and to ensure attorneys take "appropriate and reasonable measure when taking advantage of technology's many benefits" without imposing unattainable duties upon attorneys.¹¹⁹

1. *Proposed Amendments to Comment [6] of Model Rule 1.1*

Model Rule 1.1 requires an attorney to provide competent representation, and Comment [6] suggests that in order to remain competent an attorney must "keep abreast of the changes in the law and its practice."¹²⁰ Due to the "sometimes bewildering pace of technological change," the Commission concluded that in order for an attorney to "keep abreast of the changes in the law and its practice," the attorney must possess a basic understanding of the relevant technology.¹²¹ Therefore, the 20/20 Commission proposed the following amendment to the commentary of Model Rule 1.1 (insertions underlined):

[6] To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in

Standing Committee on Specialization, ABA Section of Law Practice Management, and the National Organization of Bar Counsel.

Id.

116. *Id.* at 7-9.

117. *Id.* The Committee proposed to amend the black letter and comments to Model Rule 1.0; the comments to Model Rule 1.1; the comments to Model Rule 1.4; the black letter and comments to Model Rule 1.6; and the black letter and comments to Model Rule 4.4. This Note is limited to discussing the proposed amendments to Model Rule 1.1 and 1.6.

118. ABA COMM'N ON ETHICS 20/20, TECH. & CONFIDENTIALITY REPORT 7 (2012) [hereinafter 20/20 COMMISSION REPORT], available at http://www.americanbar.org/content/dam/aba/administrative/ethics_2020/20120508_ethics_20_20_final_resolution_and_report_technology_and_confidentiality_posting.authcheckdam.pdf.

119. *Id.* at 7.

120. MODEL RULES OF PROF'L CONDUCT R 1.1 cmt. 6 (2006), available at http://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_1_competence.html.

121. 20/20 COMMISSION INTRODUCTION, *supra* note 7, at 8.

continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject.¹²²

By amending Comment [6] of Model Rule 1.1, the 20/20 Commission did not intend to impose any new obligations on an attorney, but rather to “offer greater clarity . . . and emphasize the growing importance of technology to modern law practice.”¹²³

2. *Proposed Amendments to Model Rule 1.6*

Although Model Rule 1.6(a) states that an attorney has a duty not to reveal a client’s confidential information, the Rule does not indicate what ethical obligations an attorney has to prevent disclosing such information.¹²⁴ As a result, the 20/20 Commission concluded that this obligation needed to be removed from the Rule’s commentary and placed explicitly in the black letter of the Rule.¹²⁵ Therefore, the 20/20 Commission created a new paragraph (c) in Model Rule 1.6, specifically stating, “A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.”¹²⁶

In addition to the proposed amendments to paragraph (c) of Model Rule 1.6, the 20/20 Commission also amended Comment [16] to provide guidance as to what constitute “reasonable efforts” to prevent the revelation of a client’s confidential information.¹²⁷ According to the amended portion of Comment [16], the factors to be considered in determining whether an attorney has made reasonable efforts to prevent the revelation of confidential information includes, but is not limited to the following:

[T]he sensitivity of the information, the likelihood of disclosure if additional safeguards are not employed, the cost of employing additional safeguards, the difficulty of implementing the safeguards, and the extent to which the safeguards adversely affect the [attorney’s] ability to represent clients (e.g., by making a

122. ABA COMM’N ON ETHICS 20/20, TECH. & CONFIDENTIALITY RESOLUTION 3 (2012) [hereinafter 20/20 COMMISSION RESOLUTION], available at http://www.americanbar.org/content/dam/aba/administrative/ethics_2020/20120508_ethics_20_20_final_resolution_and_report_technology_and_confidentiality_posting.authcheckdam.pdf.

123. 20/20 COMMISSION INTRODUCTION, *supra* note 7, at 8.

124. MODEL RULES OF PROF’L CONDUCT R. 1.6(a) (2006).

125. *Id.*

126. 20/20 COMMISSION RESOLUTION, *supra* note 122, at 4.

127. *Id.* at 4-5.

device or important piece of software excessively difficult to use).¹²⁸

As noted in ethics opinions relating to cloud computing,¹²⁹ this obligation is not new.¹³⁰ Rather, the amendments to Comment [16] will ensure that attorneys “understand their ethical obligations to protect client confidences in a digital age and give them sufficient guidance to fulfill that obligation.”¹³¹

IV. PROPOSAL TO UPDATE NORTH DAKOTA’S RULES OF PROFESSIONAL CONDUCT

As of April 11, 2011, North Dakota will be the first state in the country to have an entirely electronic trial court record.¹³² In 2010, the state unveiled a new case management and document management system statewide, followed by the new electronic filing (e-filing) system.¹³³ Through the use of this e-filing system, North Dakota lawyers are able to access court documents electronically from their offices, file documents faster, and avoid courier and delivery expenses.¹³⁴

Despite the state’s perceived proclivity to lead the nation in implementing technology into the legal profession, North Dakota has not been as proactive in ensuring that its rules of professional conduct are not outpaced by the cloud computing technologies associated with virtual law practice and e-filing. For example, the last time North Dakota updated or made substantive changes to its rules regarding an attorney’s obligation to provide competent representation and to protect a client’s confidential information – Rules 1.1 and 1.6 of the North Dakota Professional Rules of Conduct – was in 2006.¹³⁵ In addition, since 1997, the State Bar Association of North Dakota (SBAND) has only issued two ethics opinions

128. *Id.*

129. *See, e.g.*, Ala. State Bar Office of Gen. Counsel, Formal Op. 2010-02 (2010); Ariz. State Bar Comm. on the Rules of Prof’l Conduct, Formal Op. 09-04 (2009); N.Y. State Bar Ass’n Comm. on Prof’l Ethics, Advisory Op. 842 (2010).

130. 20/20 COMMISSION INTRODUCTION, *supra* note 7, at 8.

131. *Id.*

132. *North Dakota State Courts E-Filing*, N.D. COURTS (Dec. 2010), <http://www.ndcourts.gov/CLE/PowerPoint.pdf>.

133. *Id.* At first, one county was assigned as the “pilot county” and the system was continually refined based on this county’s experiences. *Id.*

134. *Id.* In order to ensure that attorneys are able to effectively use the e-filing system, the Supreme Court of North Dakota website provides numerous resources to assist attorneys in filing documents electronically. *E-Filing in North Dakota State Courts*, N.D. COURTS, <http://www.ndcourts.gov/CLE/> (last visited Feb. 25, 2013). For example, the website provides a PowerPoint presentation, E-File User Guide, E-File Quick Reference Guide, Guidelines for E-filing, and other resources to help attorneys become proficient with the e-filing system. *Id.*

135. N.D. RULES OF PROF’L CONDUCT R. 1.1, 1.6 (2006).

associated with the various cloud computing technologies used to deliver legal services.¹³⁶ As a result, the state's attorneys have been provided with minimal guidance as to how to address the unique ethical and security risks associated with implementing the various cloud computing technologies into their legal practices.

As North Dakota prepares to transition to an entirely electronic filing system, the State must ensure its rules of professional conduct reflect the realities of the digital age. This could be easily accomplished by adopting the 20/20 Commission's proposed amendments to the ABA Model Rules of Professional Conduct, especially Model Rules 1.1 and 1.6. By doing so, North Dakota would simultaneously update its professional rules of conduct and would clarify that an attorney's duty to remain competent and to protect the confidentiality of information applies equally to electronic data sent or stored by cloud computing technology. In addition, by adopting the proposed amendments to Model Rules 1.1 and 1.6, attorneys would be better informed as to what "reasonable efforts" are necessary to provide competent representation and prevent against unauthorized access to confidential communications.

V. CONCLUSION

Although the 20/20 Commission's proposed amendments to the ABA Model Rules of Professional Conduct have yet to be fully accepted and implemented, states should not ignore these attempts to align current technology with the ethical obligations of attorneys. Instead, states should embrace these proposals and seek to provide their respective legal communities with the necessary guidance to reap numerous benefits associated with cloud computing technologies without violating ethical obligations. As a result, states will ensure attorneys are able to not only implement the numerous cloud computing technologies in their traditional or virtual law practices, but also, ensure that attorneys understand the unique ethical concerns associated with such technology so that they are

136. *See* State Bar Assoc. of N.D. Ethics Comm., Op. 97-09 (1997) (discussing the use of unencrypted web-based e-mail); *see also* State Bar Assoc. of N.D. Ethics Comm., Op. 99-03 (1999) (discussing the use of an online data backup service).

able to take necessary and reasonable measures to protect themselves and their practice.

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