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Text Message Service of Process - No LOL Matter: Does Text Message Service of Process Comport with Due Process?

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TEXT MESSAGE SERVICE OF PROCESS— NO LOL MATTER: DOES TEXT MESSAGE SERVICE OF PROCESS COMPORT WITH DUE PROCESS?

Abstract: U.S. courts have been slow to embrace new technologies. This is especially true when it comes to service of process. With people in the United States relying heavily on cell phones and text message technology, text messages offer a unique method for serving process. Text messages would be useful for serving a defendant when the defendant cannot be located. Further, text messages are sent almost instantaneously and are inexpensive. In addition, unlike e-mail, text messages do not require Internet access. Given these advantages, this Note examines whether text message service of process is constitutional. It argues that text message service of process is not *per se* unconstitutional. Nevertheless, the current technological limitations of text messages counsel against using text messages to serve process at this time. Assuming that these limitations are ultimately fixed, this Note then proposes a legal framework for permitting text message service of process.

INTRODUCTION

Since the introduction of text message technology, people in the United States have readily used text messages as a means of communicating with others.¹ Imagine that among the “Hi, how are you?” and the “You will never believe what happened today!” messages is a text message saying, “You’ve been served.”²

In 2008, the Australian Capital Territory Supreme Court became the world’s first court to authorize service of a default judgment on the defendants by sending each defendant a message on Facebook.³ After

¹ Aaron Smith, *Americans and Text Messaging*, PEW INTERNET & AM. LIFE PROJECT, 2 (Sept. 19, 2011), <http://pewinternet.org/~media/Files/Reports/2011/Americans%20and%20Text%20Messaging.pdf>.

² Cf. Andriana L. Shultz, Comment, *Superpoked and Served: Service of Process via Social Networking Sites*, 43 U. RICH. L. REV. 1497, 1497 (2009) (hypothesizing what it would be like to receive service of process via Facebook).

³ John G. Browning, *Served Without Ever Leaving the Computer: Service of Process via Social Media*, 73 TEX. B. J. 180, 181 (2010); Ronald J. Hedges et al., *Electronic Service of Process at Home and Abroad: Allowing Domestic Electronic Service of Process in the Federal Courts*, 4 FED. CTS. L. REV. 55, 69 (2010).

Australia permitted service through social media, other countries followed.⁴ For example, Canada and New Zealand have both permitted service via Facebook, and, in 2009, the United Kingdom allowed an injunction to be served by Twitter.⁵ Most recently, Australian courts are again leading the way in the integration of new technology into the court system by permitting service of legal documents by text message.⁶ Whereas Australian courts quickly embrace utilizing new technology in the court system, U.S. courts have been cautious in incorporating technology.⁷ In 2000, for example, only nine federal courts permitted electronic filing.⁸ Although approximately ninety-nine percent of federal courts now utilize electronic filing, courts have been even more cautious in permitting service of process by new forms of technology.⁹ Only one federal appeals court has considered whether e-mail service of process is permissible on a foreign defendant.¹⁰ And, in fact, no domestic defendant has been served by e-mail.¹¹

The use of text messages in the United States is extensive, yet that technology still has its limitations.¹² Currently, more than eighty-percent of adults in the United States own a cell phone.¹³ Of those cell phone users, the average user sends and receives 41.5 text messages per day.¹⁴ That number escalates to 109.5 text messages among adults aged eight-

⁴ Browning, *supra* note 3, at 182.

⁵ *Id.*

⁶ See *infra* notes 192–199 and accompanying text.

⁷ Compare *Jemella Austl. Pty Ltd. v Bouobeid (No. 2)* [2009] FCA 1567, 2010 WL 1533394 at para. 4 (Austl.) (permitting service by text message), and Browning, *supra* note 3, at 181 (discussing service of process by Facebook in Australia), with *Rio Props., Inc. v. Rio Int'l Interlink*, 284 F.3d 1007, 1012–13, 1017–18 (9th Cir. 2002) (holding that e-mail service of process on a foreign defendant was permissible and satisfied due process), and Browning, *supra* note 3, at 182 (noting that despite European courts using service by networking sites, the United States has not followed suit).

⁸ Sharon D. Nelson & John W. Simek, *Electronic Filing in the Federal Courts: A Status Report*, SENSEI ENTERPRISES, INC., 1, available at <http://www.judicialaccountability.org/electronic%20Filing%206-26-02.pdf> (last visited Oct. 29, 2012).

⁹ Browning, *supra* note 3, at 182; Hedges et al., *supra* note 3, at 58.

¹⁰ See *Rio Props.*, 339 F.3d at 1012–13.

¹¹ See, e.g., *id.* But see *D.R.I., Inc. v. Dennis*, No. 03 Civ. 10026(PKL), 2004 WL 1237511, at *2 (S.D.N.Y. June 4, 2003) (permitting service by e-mail on a defendant whose whereabouts were unknown).

¹² See *infra* notes 13–16, 219–246 and accompanying text.

¹³ Aaron Smith, *35% of American Adults Own a Smartphone*, PEW INTERNET & AM. LIFE PROJECT, 2 (July 7, 2011), http://pewinternet.org/~media/Files/Reports/2011/PIP_Smartphones.pdf (reporting that eighty-three percent of adults own cell phones); see also Karen Zickhur, *Generations and Their Gadgets*, PEW INTERNET & AM. LIFE PROJECT, 2 (Feb. 3, 2011), http://www.pewinternet.org/~media/Files/Reports/2011/PIP_Generations_and_Gadgets.pdf (reporting that eighty-five percent of adults own cell phones).

¹⁴ Smith, *supra* note 1, at 2.

een to twenty-four.¹⁵ Even though text messages are highly used in the United States, they have limitations, such as the inability to attach documents and the lack of confirmation of receipt for messages sent across phone models or network providers.¹⁶ Nevertheless, the use of text messages to serve documents in Australia suggests that text message service of process may eventually find its way into U.S. courts.¹⁷

Service of process by text message offers many advantages.¹⁸ Because they are instantaneous, they provide an efficient means for effecting service of process.¹⁹ Further, text messages are inexpensive.²⁰ In addition, given the ease with which individuals move around the world today, they provide a mechanism to effect service of process when the physical location of the individual is unknown.²¹ Yet, unlike e-mail service of process, text messages do not require the individual to have Internet access.²²

This Note examines whether text message service of process satisfies constitutional due process.²³ Part I examines how the due process standard has evolved from a rigid personal service requirement to the modern “reasonably calculated” standard.²⁴ It then examines the advantages and disadvantages of the traditional constitutionally sufficient methods of service of process, including those methods codified in the

¹⁵ *Id.*

¹⁶ See *infra* notes 219–246 and accompanying text.

¹⁷ *Cf. Rio Props.*, 284 F.3d at 1018 (advocating a balancing test for determining whether the benefits of e-mail service of process outweigh the limitations of e-mail).

¹⁸ See *infra* notes 19–22 and accompanying text.

¹⁹ See Jennifer Hord, *How SMS Works*, HOW STUFF WORKS, <http://computer.howstuffworks.com/e-mail-messaging/sms.htm> (last visited Oct. 29, 2012) (stating that text messages can be delivered within minutes of sending). Even though delivery of text messages is usually near-instantaneous, during times of high traffic, it may take hours for a text message to be delivered. *Id.* Further, if a person is out of range or the cell phone is turned off such that the text message cannot be delivered, the message will be stored in a server center for a few days until it can be delivered. *Id.*; see also *Text Messaging*, VERIZON, <http://support.verizonwireless.com/faqs/TXT%20messaging/faq.html> (last visited Oct. 29, 2012) (stating that Verizon will attempt to deliver a text message for 120 hours).

²⁰ Kate Murphy, *All the Texts, Without All the Costs*, N.Y. TIMES, Nov. 3, 2011, at B8 (stating that sending a text message costs around twenty cents, and that there are cell phone applications that permit individuals to send text messages for free).

²¹ *Cf. New Eng. Merchs. Nat'l Bank v. Iran Power Generation & Transmission Co.*, 495 F. Supp. 73, 81 (S.D.N.Y. 1980) (noting that electronic forms of service of process permit service to be effected even when the defendant cannot be physically located).

²² *An Overview of Textmessaging*, AT&T, <http://www.att.com/esupport/article.jsp?sid=52379&cv=820#fbid=OOajbAXLPgG> (last visited Oct. 29, 2012) (outlining mobile-to-mobile text messaging); *Text Messaging*, *supra* note 19 (explaining the various methods to send text messages).

²³ See *infra* notes 29–286 and accompanying text.

²⁴ See *infra* notes 29–54 and accompanying text.

Federal Rules of Civil Procedure.²⁵ Part II discusses how courts have recognized the need to adapt their procedures to accommodate new technology.²⁶ Part III argues that text message service of process is constitutionally sufficient to meet due process; however, given the limitations of text message technology, it is not currently feasible.²⁷ Finally, Part IV proposes a procedural framework for permitting service of process via text message should text message technology improve.²⁸

I. FROM PERSONAL SERVICE TO REASONABLY CALCULATED: THE PROGRESSION OF THE SERVICE STANDARD AND TRIED-AND-TRUE METHODS THAT SATISFY DUE PROCESS

The required means for service of process have varied since the adoption of the Fourteenth Amendment of the U.S. Constitution.²⁹ Section A describes the progression of the standard for service of process from the former rigid personal service requirement to the current, flexible “reasonably calculated” standard.³⁰ Section B then examines the methods of service of process that meet the “reasonably calculated” standard, including those codified in the Federal Rules of Civil Procedure, and the various issues that have arisen under those methods.³¹

A. *The Development of the Due Process Standard*

The Fourteenth Amendment requires that U.S. citizens be afforded due process of law prior to deprivation of life, liberty, or property.³² The U.S. Supreme Court has noted that, at a minimum, this requires notice of the proceedings,³³ the opportunity for a hearing,³⁴ and

²⁵ See *infra* notes 55–116 and accompanying text.

²⁶ See *infra* notes 117–199 and accompanying text.

²⁷ See *infra* notes 200–249 and accompanying text.

²⁸ See *infra* notes 250–286 and accompanying text.

²⁹ Compare *Pennoyer v. Neff*, 95 U.S. 714, 733–34 (1877) (requiring personal service in an *in personam* proceeding), *overruled in part* by *Shaffer v. Heitner*, 433 U.S. 186 (1977), with *Mullane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 314 (1950) (stating that service of process is constitutional as long as it is reasonably calculated to notify the defendant of the proceedings and provide the defendant with an opportunity to be heard).

³⁰ See *infra* notes 32–54 and accompanying text.

³¹ See *infra* notes 55–116 and accompanying text.

³² U.S. CONST. amend. XIV, § 1.

³³ See, e.g., *Mullane*, 339 U.S. at 313 (“Many controversies have raged about the cryptic and abstract words of the Due Process Clause but there can be no doubt that at a minimum they require that deprivation of life, liberty, or property by adjudication be preceded by notice and opportunity for [a] hearing . . .”).

³⁴ See, e.g., *Matthews v. Eldridge*, 424 U.S. 319, 333 (1976) (“This Court consistently has held that some form of hearing is required before an individual is finally deprived of a

an unbiased decisionmaker.³⁵ Throughout history, the requirements for the manner in which notice of the proceedings—service of process—can be provided to the defendant have varied.³⁶

1. Historical Notions of Due Process

In order for a court to enforce a judgment against a defendant, the court must have personal jurisdiction over the defendant and service of process must be effected.³⁷ During the nineteenth century and the first half of the twentieth century, service of process was directly intertwined with personal jurisdiction.³⁸

In 1877, in *Pennoyer v. Neff*, the U.S. Supreme Court required personal service within the forum state in all *in personam* proceedings.³⁹ The issue in *Pennoyer* was whether a monetary judgment entered against a nonresident defendant was enforceable where process was not personally served and the defendant did not appear.⁴⁰ The Supreme Court emphasized that for a state court to enter a judgment against a defendant, the defendant must be within the state and be personally served.⁴¹

property interest. . . . The fundamental requirement of due process is the opportunity to be heard at a meaningful time and in a meaningful manner.” (citations and quotations omitted)).

³⁵ See, e.g., *Goldberg v. Kelly*, 397 U.S. 254, 271 (1970) (noting that an impartial decisionmaker is required in a hearing for termination of welfare benefits).

³⁶ Compare *Pennoyer*, 95 U.S. at 733–34 (holding that service of process on the individual is required to satisfy due process in an *in personam* proceeding), with *Mullane*, 339 U.S. at 314 (holding that service of process must be reasonably calculated to notify the defendant of the proceedings and to provide the defendant with an opportunity to be heard).

³⁷ E.g., *Murphy Bros., Inc. v. Michetti Pipe Stringing, Inc.*, 526 U.S. 344, 350 (1999) (“In the absence of service of process (or waiver of service by the defendant), a court ordinarily may not exercise power over a party the complaint names as defendant.”); *Omni Capital Int’l, Ltd. v. Rudolf Wolff & Co.*, 484 U.S. 97, 104 (1987) (“Before a . . . court may exercise personal jurisdiction over a defendant, the procedural requirement of service of summons must be satisfied.”).

³⁸ See, e.g., *Pennoyer*, 95 U.S. at 724 (“Where a party is within a territory, he may justly be subjected to its process, and bound personally by the judgment pronounced on such process against him.” (quoting *Picquet v. Swan*, 19 F. Cas. 609 (C.C. Mass. 1828) (No. 11,134))). *In personam* proceedings are lawsuits that seek a judgment that is enforceable against a specific individual as opposed to property. BLACK’S LAW DICTIONARY 33 (9th ed. 2009).

³⁹ *Pennoyer*, 95 U.S. at 733–34.

⁴⁰ *Id.* at 736. Specifically, in *Mitchell v. Neff*, the plaintiff initiated an action against Neff, the defendant, and effected service of process through publication. *Id.* at 716. Because Neff failed to appear or otherwise defend, a default judgment was entered against him. *Id.* at 719–20. Neff’s property was sold under a sheriff’s deed in order to enforce the judgment against him obtained by Mitchell. *Id.* at 719. Neff sued Pennoyer, the purchaser, to recover his property. *Id.* The Court noted that ownership of the title of the property turned on whether the judgment in the first proceeding was valid. *Id.*

⁴¹ *Id.* at 722–27.

Thus, under the *Pennoyer* standard, personal service within the given state was required to satisfy due process.⁴²

After the turn of the century, the Supreme Court began to recognize the rigidity of the personal service requirement and expanded the scope of methods of service of process permitted.⁴³ For example, in the 1917 case, *McDonald v. Mabee*, the Court stated that if personal service was not possible in a given case, the plaintiff should use a form of service that is most likely to reach the defendant.⁴⁴

This more flexible standard recognized in *McDonald* was further relaxed in accordance with the expansion of the concept of personal jurisdiction.⁴⁵ In 1945, in *International Shoe Co. v. Washington*, the U.S. Supreme Court held that serving a corporation's agent in a state in which a defendant had sufficient minimum contacts to establish personal jurisdiction was sufficient.⁴⁶ The Court stated that in-person service of process is not necessary; a substituted form of service is sufficient as long as it is reasonably calculated to notify the defendant of the pending action.⁴⁷ Thus, as individuals' mobility in the United States increased, and the jurisdictional reach of the courts expanded over

⁴² *Id.* at 733–34.

⁴³ *McDonald v. Mabee*, 243 U.S. 90, 91 (1917).

⁴⁴ *Id.* at 91–92. In *McDonald*, the defendant originally lived in Texas and subsequently left the state with intent to establish domicile elsewhere. *Id.* at 91. Yet, the defendant's family remained in Texas. *Id.* The plaintiff executed service by publication in a newspaper in Texas once a week for four weeks. *Id.* The Supreme Court held that service by publication, in this instance, did not satisfy due process, and thus the judgment rendered against the defendant was void. *Id.* at 91–92. In its discussion, the Court hypothesized that the actual presence of the defendant's family in Texas may have made a summons left at that home constitutionally sufficient. *Id.* at 92. At a minimum, however, when personal service cannot be effected, the "substitute that is most likely to reach the defendant is the least that ought to be required if substantial justice is to be done." *Id.*

⁴⁵ See *Int'l Shoe Co. v. Washington*, 326 U.S. 310, 320 (1945). Prior to *International Shoe*, a defendant had to have been a resident of or located within a state in order to have a judgment granted against him. *Pennoyer*, 95 U.S. at 723–24, 732–34. By contrast, *International Shoe* held that a court in a state has power over a nonresident or non-present individual as long as that person has minimum contacts with that state. *Int'l Shoe*, 326 U.S. at 316.

⁴⁶ *Int'l Shoe*, 326 U.S. at 316.

⁴⁷ *Id.* The court stated:

We are . . . unable to conclude that service of process within the state upon an agent whose activities establish appellant's "presence" there was not sufficient notice of the suit. . . . It is enough that appellant has established such contacts with the state that the particular form of substituted service adopted there gives reasonable assurance that the notice will be actual.

nonresident defendants, the requirements for service of process were relaxed.⁴⁸

2. The Current Test: *Mullane v. Central Hanover Bank & Trust Co.*

After expanding its notions of personal jurisdiction through the minimum contacts standard in *International Shoe*, the Supreme Court explicitly discussed its standards for assessing whether service of process comported with due process.⁴⁹ In 1950, in *Mullane v. Central Hanover Bank & Trust Co.*, the U.S. Supreme Court held that the Due Process Clause requires that service of process be “reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections.”⁵⁰ Under this standard, the plaintiff is required to provide notice in a manner that a reasonable individual who desired to contact the defendant would utilize.⁵¹ Further, when there are no methods of service of process available that meet the “reasonably calculated” standard, the method of service must not be less likely to effectuate service than other feasible and traditional means.⁵²

Applying the “reasonably calculated” standard to the facts in *Mullane*, the Court dictated that service published in a widely read newspaper was constitutional with regards to the parties for whom the plaintiffs did not have names or addresses.⁵³ Where the identities and residences of parties were known, however, publication was not constitutionally sufficient because service via U.S. mail was more effective than publication as it was explicitly directed at given individuals.⁵⁴

⁴⁸ See *id.*; see also Jeremy A. Colby, *You've Got Mail: The Modern Trend Towards Universal Electronic Service of Process*, 51 BUFF. L. REV. 337, 381 (2003) (noting that *Mullane's* reasonably calculated test was necessary in light of the expanding notions of personal jurisdiction).

⁴⁹ *Mullane*, 339 U.S. at 314.

⁵⁰ *Id.*

⁵¹ *Id.* at 315.

⁵² *Id.*

⁵³ *Id.* at 318 (“[W]e overrule appellant’s constitutional objections to published notice insofar as they are urged on behalf of any beneficiaries whose interests or addresses are unknown to the trustee.”).

⁵⁴ *Id.* at 318–19. The Court stated, “Where the names and post office addresses of those affected by a proceeding are at hand, the reasons disappear for resort to means less likely than the mails to apprise them of its pendency.” *Id.* Further, the Court held that publication under these circumstances was not reasonably calculated because the mail is a more efficient and effective means of communication for a particular beneficiary than publication. *Id.* at 319.

B. *Traditional Methods of Service That Satisfy the Mullane Test: Federal Rule of Civil Procedure 4 and Substituted Service by Mail and Publication*

There are many traditional forms of service of process deemed constitutionally sufficient, including personal service and service by publication.⁵⁵ The Federal Rules of Civil Procedure have codified some of those methods of service of process that meet the “reasonably calculated” test of *Mullane*.⁵⁶ Service of process to initiate adversarial proceedings is governed by Rule 4.⁵⁷ Under this rule, an individual may be served by: (1) following the state law procedures in the state where the action is pending or where service is made;⁵⁸ (2) serving the summons and complaint personally on the individual;⁵⁹ (3) leaving a copy of the summons and complaint at the “individual’s dwelling or usual place of abode with someone of suitable age and discretion who resides there;”⁶⁰ or (4) serving process on an agent authorized to accept service for the individual.⁶¹ For domestic corporate defendants, Rule 4 permits service of process by (1) following the state law procedures in either the state where the action is pending or where service is made,⁶² or (2) serving process on an officer, a managing agent, or an agent authorized to receive service of process.⁶³

Because people are more transient than corporations, this Section focuses on the traditional methods for serving process on individuals.⁶⁴ This Section first examines personal service and service on an individual of suitable age.⁶⁵ It then discusses forms of substituted service of process: service by mail and by publication.⁶⁶

⁵⁵ See *Mullane*, 339 U.S. at 318 (upholding service of process by publication under certain conditions); *Pennoyer*, 95 U.S. at 733–34 (requiring personal service on the defendant in *in personam* proceedings); *infra* notes 67–116 and accompanying text.

⁵⁶ FED. R. CIV. P. 4.

⁵⁷ *Id.*

⁵⁸ *Id.* 4(e)(1). Although Rule 4 permits the plaintiff to serve the defendant under procedures permitted by state law in either the state in which the action is pending or the state where the defendant is located, these state procedures must meet the *Mullane* standard to satisfy the defendant’s due process rights. See *Mullane*, 339 U.S. at 314.

⁵⁹ FED. R. CIV. P. 4(e)(2)(A).

⁶⁰ *Id.* 4(e)(2)(B).

⁶¹ *Id.* 4(e)(2)(C).

⁶² *Id.* 4(h)(1)(A). As stated previously, the state procedures for service of process must meet the *Mullane* standard to satisfy the defendant’s due process rights. See *Mullane*, 339 U.S. at 314; *supra* note 58.

⁶³ FED. R. CIV. P. 4(h)(1)(B).

⁶⁴ See *infra* notes 67–116 and accompanying text.

⁶⁵ See *infra* notes 67–104 and accompanying text.

⁶⁶ See *infra* notes 105–116 and accompanying text.

1. Personal Service

Personal service is effected when a copy of the summons and complaint is given directly to the defendant by a third party authorized by law to serve process.⁶⁷ Personal service is regarded as the “gold standard” means for serving process.⁶⁸ Because personal service is the most reliable method of apprising defendants of the proceedings pending against them, plaintiffs often provide notice in this manner.⁶⁹ Unfortunately, although personal service is reliable, it can also be prohibitively expensive.⁷⁰ Further, it requires that the defendant be locatable, which raises problems when the defendant is purposefully avoiding service of process.⁷¹

Moreover, there is some uncertainty as to what constitutes “service on” the defendant.⁷² Some courts have not interpreted “service on” to mean hand delivery.⁷³ For example, in the 1983 case *Novak v. World Bank*, the U.S. Court of Appeals for the District of Columbia Circuit held that leaving papers near the defendant is sufficient for personal service when the defendant is evading service.⁷⁴ Other courts, however, have stated that personal service requires actual hand delivery.⁷⁵ For example, the Washington Supreme Court, in its 1995 decision, *Weiss v. Glemp*, held that a summons left on a windowsill of a rectory where a defendant was staying did not comply with personal service requirements.⁷⁶

⁶⁷ FED. R. CIV. P. 4(c)(2)(A).

⁶⁸ *Mullane*, 339 U.S. at 313 (“Personal service of written notice within the jurisdiction is the classic form of notice always adequate in any type of proceeding.”).

⁶⁹ See Yvonne A. Tamayo, *Are You Being Served?: E-Mail and (Due) Service of Process*, 51 S.C. L. REV. 227, 234 (2000).

⁷⁰ See FED. R. CIV. P. 4(c)(2), (e)(2)(A).

⁷¹ See *id.* (e)(2)(A); Tamayo, *supra* note 69, at 234.

⁷² See, e.g., *Novak v. World Bank*, 703 F.2d 1305, 1310 n.14 (D.C. Cir. 1983); *Weiss v. Glemp*, 903 P.2d 455, 457 (Wash. 1995); Tamayo, *supra* note 69, at 234 & n.45.

⁷³ See *Novak*, 703 F.2d 1310 n. 14; *Heritage House Frame & Moulding Co., Inc. v. Boyce Highlands Furniture Co.*, 88 F.R.D. 172, 174 (E.D.N.Y. 1980); Tamayo, *supra* note 69, at 234–35 & n.45.

⁷⁴ See 703 F.2d at 1310 n.14. Other federal courts have also upheld the sufficiency of personal service of process on an evasive defendant where papers were left at the defendant’s door and the defendant was later observed to take the papers into the defendant’s home. Tamayo, *supra* note 69, at 234 n.45.

⁷⁵ E.g., *Weiss*, 903 P.2d at 457; *Mann v. Hobbick*, No. 49233-1-I, 2002 WL 1402546, at *2–3 (Wash. Ct. App. July 1, 2002).

⁷⁶ *Id.*; see also Tamayo, *supra* note 69, at 234–35 (discussing the *Weiss* case in detail). In *Weiss*, the defendant was a resident of Poland and was staying at a rectory while visiting the State of Washington. 903 P.2d at 456. The process server spotted the defendant in the rectory, approached him, and stated that he had been served. *Id.* The defendant did not re-

Thus, under personal service, there are instances in which courts will find that service of process is not sufficient because the summons and complaint have not been directly hand-delivered to the defendant due to the defendant's elusiveness.⁷⁷ Yet, leaving a copy of the summons and the complaint near the defendant arguably meets the "reasonably calculated" standard because the defendant has knowledge of the pending proceedings.⁷⁸ Ultimately, whether personal service is reasonably calculated is a highly fact-driven inquiry when delivery is effectuated by means other than the gold standard of in-hand delivery.⁷⁹

2. Service on an Individual of Suitable Age

The Federal Rules of Civil Procedure also permit service of process on a defendant by "leaving a copy . . . at the individual's dwelling or usual place of abode with someone of suitable age and discretion who resides there."⁸⁰ Unlike personal service of process, this method does not require the actual presence of the defendant.⁸¹ Like personal service, service at the defendant's residence can be expensive.⁸²

Moreover, there are complications in defining what constitutes a "dwelling or usual place of abode,"⁸³ "someone of suitable age and discretion,"⁸⁴ and whether the individual resides at the dwelling under Rule 4(e)(2)(B).⁸⁵ These determinations require intensive fact-based inquiries.⁸⁶

spond to the process server, and the process server eventually left the documents on a windowsill approximately four feet from the defendant. *Id.*

⁷⁷ *Weiss*, 903 P.2d at 456–57; *Mann*, 2002 WL 1402546, at *2–3; *Tamayo*, *supra* note 69, at 234–35.

⁷⁸ *Tamayo*, *supra* note 69, at 235.

⁷⁹ *See, e.g., Novak*, 703 F.2d at 1310 n.14; *Weiss*, 903 P.2d at 456–57.

⁸⁰ FED. R. CIV. P. 4(e)(2)(B).

⁸¹ *See id.*

⁸² *See id.* 4(c)(2).

⁸³ *E.g., Nat'l Dev. Co. v. Triad Holding Corp.*, 930 F.2d 253, 256–57 (2d Cir. 1991) (discussing whether the dwelling where service of process was left was sufficient for service of process).

⁸⁴ *Compare* *Blue Cross & Blue Shield of Mich. v. Chang*, 109 F.R.D. 669, 671 (E.D. Mich. 1986) (holding that leaving service of process with the defendant's seventeen-year-old son at the defendant's residence was not defective), *and* *De George v. Mandata Poultry Co.*, 196 F. Supp. 192, 193–94 (E.D. Pa. 1961) (holding that leaving service of process with the defendant's sixteen-year-old daughter at the defendant's residence was constitutionally sufficient), *with* *Room Additions, Inc. v. Howard*, 475 N.Y.S.2d 310, 310 (N.Y. Civ. Ct. 1984) (holding that an eleven-year-old was not of suitable age to receive service as a matter of law).

⁸⁵ *E.g., Hartford Fire Ins. Co. v. Perinovic*, 152 F.R.D. 128, 130–31 (N.D. Ill. 1993) (upholding service on a doorman in the defendant's condominium complex).

⁸⁶ *E.g., Nat'l Dev. Co.*, 930 F.2d at 257.

Courts have noted that there is no explicit definition of what constitutes a “dwelling house” or “usual place of abode” under Rule 4.⁸⁷ For example, in 1991, in *National Development Co. v. Triad Holding Corp.*, the U.S. Court of Appeals for the Second Circuit held that service of process on the defendant’s housekeeper at the defendant’s New York apartment was a valid method of service of process because the apartment qualified as a “usual place of abode.”⁸⁸

In *National Development*, the defendant claimed that he owned multiple homes worldwide and argued that his actual residence was his compound in Saudi Arabia.⁸⁹ The Second Circuit rejected this argument, emphasizing that although the defendant considered his Saudi Arabia compound his dwelling, the defendant spent only three months of the year there.⁹⁰ Furthermore, the court held that the defendant’s apartment in New York had sufficient indicia of permanence to be considered “a dwelling or usual place of abode” under Rule 4(e)(2)(B).⁹¹ Although the defendant did not spend time at the New York apartment year round, the court pointed to the substantial monetary investment the defendant made to remodel the apartment.⁹²

In deeming service of process at the New York apartment appropriate, the Second Circuit emphasized that it fulfilled the *Mullane* standard.⁹³ Specifically, the court noted that the defendant was living at the New York apartment at the time that service was left with his housekeeper.⁹⁴ As such, service at the New York apartment on the day it was served was the method most likely to ensure that the defendant re-

⁸⁷ *E.g.*, *Khan v. Khan*, 360 Fed. App’x 202, 203 (2d Cir. 2010); *Nat’l Dev. Co.*, 930 F.2d at 254; *see Jaffe & Asher v. Van Brunt*, 158 F.R.D. 278, 280 (S.D.N.Y. 1994).

⁸⁸ *Nat’l Dev. Co.*, 930 F.2d at 254–56.

⁸⁹ *Id.* at 254.

⁹⁰ *Id.* at 257 (“The conclusion that only *one* of these locations is . . . [the defendant’s] ‘usual place of abode’, since he does not ‘usually’ stay at one of them, commends itself to neither common sense nor sound policy.”).

⁹¹ *Id.* at 258; *see also Jaffe & Asher*, 158 F.R.D. at 280 (holding that service of process on the defendant’s parents’ home was sufficient because the defendant’s receipt of mail, maintenance of a private bedroom, clothes, and phone line were sufficient indicia of permanence for the home to qualify as the defendant’s usual place of abode).

⁹² *Nat’l Dev. Co.*, 930 F.2d at 258.

⁹³ *Id.* (“[S]ervice there [at the defendant’s apartment] on that day was . . . reasonably calculated to provide actual notice of the action.”); *see also Mullane*, 339 U.S. at 314 (“An elementary and fundamental requirement of due process . . . is notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections.”).

⁹⁴ *Nat’l Dev. Co.*, 930 F.2d at 258.

ceived the summons and complaint, and, if not, it was at least reasonably calculated to provide notice of the pending action.⁹⁵

Courts have also had difficulty determining whether the individual who accepts the copy of the summons and complaint resides at the dwelling.⁹⁶ For example, in the 1988 case, *Reliance Audio Visual Corp. v. Bronson*, the New York Civil Court held that service on a doorman was not sufficient to satisfy due process because the doorman did not reside in the complex.⁹⁷ Contradicting this holding, in 1993, in *Hartford Fire Insurance Co. v. Perinovic*, the U.S. District Court for the Northern District of Illinois held that serving process on a doorman of the defendant's restricted condominium complex, who was permitted to sign for packages and deliveries, satisfied due process.⁹⁸

Determining whether an individual is of a sufficient age to understand the implications of service of process, and therefore to accept it, is also essential to constitutional sufficiency.⁹⁹ In 1990, in *United Services Auto Ass'n v. Barger*, the U.S. Court of Appeals for the Sixth Circuit held that the defendant's thirteen-year-old son was of a "suitable age" to accept service.¹⁰⁰ Similarly, in 1986, in *Blue Cross & Blue Shield v. Chang*, the U.S. District Court for the Eastern District of Pennsylvania held that delivery of service to defendant's seventeen-year-old son was sufficient because there was no evidence to indicate that the son was unable to

⁹⁵ *Id.*

⁹⁶ *E.g.*, *Perinovic*, 152 F.R.D. at 130-31; *Sheldon v. Fetting*, 919 P.2d 1209, 1210-12 (Wash. 1996) (holding that service on a defendant's brother at the defendant's parents' home was valid even though the defendant lived with her boyfriend next door whenever she visited home); *see also* *Tamayo*, *supra* note 69, at 239-41 (discussing the issues presented to the courts regarding the meaning of "resides there").

⁹⁷ *See* 534 N.Y.S.2d 313, 315-16 (N.Y. Civ. Ct. 1988) (finding also that service on the doorman was not sufficient because "dwelling house" constitutes the defendant's *actual* apartment, not the tangential areas of an apartment complex, such as the stairs and hallways).

⁹⁸ 152 F.R.D. at 130-31; *see also* *Nowell v. Nowell*, 384 F.2d 951, 952-54 (5th Cir. 1967) (holding that service on the apartment manager was sufficient and rejecting the idea that the residence requirement should be narrowly construed to turn on whether the apartment manager lives in the same building as the defendant); *Three Crown Ltd. P'ship v. Caxton Corp.*, 817 F. Supp. 1033, 1051 (S.D.N.Y. 1993) (holding that service on the defendant's twenty-year-old doorman was sufficient to satisfy due process). The court focused on the doorman's ability to sign for all packages, letters, and deliveries for tenants of the complex. *Perinovic*, 152 F.R.D. at 131. The court also relied on precedent of other courts that liberally construed the requirement that the individual reside in the dwelling. *Id.*

⁹⁹ *See, e.g.*, *United Servs. Auto. Ass'n v. Barger*, 910 F.2d 321, 323-24 (6th Cir. 1990) (holding that the defendant's thirteen-year-old son was of a suitable age to receive service); *De George*, 196 F. Supp. at 193-94 (holding that leaving service of process with the defendant's sixteen-year-old daughter at the defendant's residence was constitutionally sufficient).

¹⁰⁰ 910 F.2d at 323-24.

comprehend the nature of the service.¹⁰¹ In 1984, however, in *Room Additions, Inc. v. Howard*, the New York Civil Court held that an eleven-year-old was not of suitable age as a matter of law.¹⁰²

Given the disparate outcomes in cases with seemingly similar circumstances, it is clear that analysis of service of process under Rule 4(e)(2)(b) requires an intensive fact-based inquiry.¹⁰³ That fact-based inquiry must be used in determining whether an individual is of a suitable age and discretion, whether a particular place constitutes a defendant's dwelling or usual place of abode, and whether someone resides at a given residence.¹⁰⁴

3. Substituted Service: Mail & Newspaper Publication

The U.S. Supreme Court has found service of process by mail and service of process by publication in a widely read newspaper to be constitutionally sufficient.¹⁰⁵ The Court has readily endorsed service of process via mail.¹⁰⁶ The best means of mail service is certified and registered mail.¹⁰⁷ Certified and registered mail require the defendant to sign for the mail, and a return receipt bearing the defendant's signature

¹⁰¹ 109 F.D.R. at 671. The court noted that from the defendant's son's affidavit, it could infer that at the time process was served, the son had the ability to read and write. *Id.*

¹⁰² 475 N.Y.S.2d at 310.

¹⁰³ See, e.g., *Nat'l Dev. Co.*, 930 F.2d at 257–58; *Trammel v. Nat'l Bank of Ga.*, 285 S.E.2d 590, 592 (Ga. Ct. App. 1981) (holding that an individual who is twelve years old is not per se a person of insufficient age and discretion).

¹⁰⁴ E.g., *Nat'l Dev. Co.*, 930 F.2d at 256–58 (determining whether the defendant's New York apartment was his “usual place of abode”); *Three Crown*, 817 F. Supp. at 1051 (determining whether service of process on the defendant's doorman satisfied due process without considering whether the doorman “resided there”); *De George*, 196 F. Supp. at 193–94 (considering whether the defendant's daughter was of “suitable age and discretion” to accept service of process).

¹⁰⁵ See, e.g., *Mennonite Bd. of Missions v. Adams*, 462 U.S. 791, 800 (1983) (“Notice by mail . . . is a minimum constitutional precondition to a proceeding which will adversely affect the liberty or property interests of any party . . . if its name and address are reasonably ascertainable.”); *Mullane*, 339 U.S. at 315–20 (discussing the constitutionality of service of process by publication); see also *Tamayo*, *supra* note 69, at 236–37, 242–44 (discussing service of process via mail, posting, and publication).

¹⁰⁶ See, e.g., *Mullane*, 339 U.S. at 319 (holding that service via publication was void for individuals whose names and addresses were known because mail service was available). Although the Supreme Court has readily endorsed service of process on domestic defendants by mail, it is not entirely clear whether direct mail service is permitted on foreign defendants. See generally Samuel R. Feldman, Note, *Not-So-Great Weight: Treaty Deference and the Article 10(a) Controversy*, 51 B.C. L. REV. 797 (2010) (noting disagreement among federal courts over whether the Hague Service Convention permits direct mail service on foreign defendants).

¹⁰⁷ See *Tamayo*, *supra* note 69, at 236.

is sent to the plaintiff.¹⁰⁸ Because these types of mail require the defendant's signature, if the defendant cannot be located, the mail cannot be delivered.¹⁰⁹ Thus, service of process by mail raises the same concerns as personal service on a hard-to-locate defendant.¹¹⁰ Further, mailing service of process through the U.S. Postal Service runs the risk of human error, such as misdelivery or loss of mail.¹¹¹

Although the Supreme Court has consistently endorsed service of process by mail, it has espoused disdain for service of process via newspaper publication.¹¹² In *Mullane*, Justice Robert Jackson, writing for the Court, said:

It would be idle to pretend that publication alone . . . is a reliable means of acquainting interested parties of the fact that their rights are before the courts. . . . Chance alone brings to the attention of even a local resident an advertisement in small type inserted in the back pages of a newspaper¹¹³

Thus, the very small likelihood that the defendant will actually be apprised of the proceedings represents the Court's central concern about service of process by newspaper publication.¹¹⁴ Although receipt of service is not constitutionally required, the Court is concerned that service published in a newspaper rarely reaches defendants.¹¹⁵ Because of publication's limited efficacy, courts will allow service of process through publication only if more traditional methods of service are not viable.¹¹⁶

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ See FED. R. CIV. P. 4 (c)(2), (e)(2)(A); Tamayo, *supra* note 69, at 236.

¹¹¹ Hedges et al., *supra* note 3, at 67 (citing Kevin W. Lewis, Comment, *E-Service: Ensuring the Integrity of International E-Mail Service of Process*, 13 ROGER WILLIAMS U. L. REV. 285, 302 (2008)).

¹¹² See, e.g., *Mullane*, 339 U.S. at 315–20.

¹¹³ *Id.* at 315.

¹¹⁴ See, e.g., *Boddie v. Connecticut*, 401 U.S. 371, 382 (1971) (“[S]ervice by publication . . . is the method of notice least calculated to bring to a potential defendant’s attention the pendency of judicial proceedings.”); *Mullane*, 339 U.S. at 315–20.

¹¹⁵ See, e.g., *Boddie*, 401 U.S. at 382; *Mullane*, 339 U.S. at 315, 319.

¹¹⁶ See, e.g., *Mennonite Bd. of Missions*, 462 U.S. at 800 (noting that if the names and addresses of the defendant are known or can be obtained with reasonable diligence, service of process by publication will not be sufficient); *Mullane*, 339 U.S. at 318–19 (holding that publication service of process was not sufficient for persons whose names and addresses were known because they could be served by mail); Tamayo, *supra* note 69, at 243. Courts have also limited the reach of publication service of process to certain types of cases. See Tamayo, *supra* note 69, at 243 & n.116.

II. ADVANCEMENTS IN TECHNOLOGY AND SERVICE OF PROCESS

Recognizing that the law must keep pace with technology, courts have gradually expanded the methods permitted for effecting service of process.¹¹⁷ Permitting service of process by new technologies, however, requires an intensive fact-based inquiry to determine whether due process is satisfied by the proposed method.¹¹⁸ Section A of this Part examines the decision of the U.S. District Court of the Southern District of New York, in *New England Merchants National Bank v. Iran Power Generation & Transmissions Co.*, to permit service of process through telex message.¹¹⁹ Section B then discusses how U.S. courts have viewed e-mail service of process.¹²⁰ Next, Section C considers the courts' evaluation of social networking sites as a means for effecting service of process.¹²¹ Finally, Section D observes how the Australian courts have utilized text message service.¹²²

A. *The Law Must Adapt to New Technologies*: New England Merchants National Bank

In 1980, in *New England Merchants*, the U.S. District Court for the Southern District of New York recognized new technology options for service of process.¹²³ *New England Merchants* arose during the Iran hostage crisis when diplomatic relations between the United States and Iran were severed.¹²⁴

Because the plaintiffs made several mailings to the Iranian defendants without proof of service and the defendants' counsel refused to accept service of process on behalf of their clients, the plaintiffs moved

¹¹⁷ See, e.g., *New Eng. Merchs. Nat'l Bank v. Iran Power Generation & Transmission Co.*, 495 F. Supp. 73, 81 (S.D.N.Y. 1980) (permitting service of process via telex message); *In re Int'l Telemedia Assocs., Inc.*, 245 B.R. 713, 719–20 (Bankr. N.D. Ga. 2000) (permitting service of process via fax).

¹¹⁸ See *Mullane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 314 (1950); *New Eng. Merchs.*, 495 F. Supp. at 81–82.

¹¹⁹ See *infra* notes 123–132 and accompanying text.

¹²⁰ See *infra* notes 133–178 and accompanying text.

¹²¹ See *infra* notes 179–191 and accompanying text.

¹²² See *infra* notes 192–199 and accompanying text.

¹²³ *New Eng. Merchs.*, 495 F. Supp. at 81.

¹²⁴ *Id.* at 78. The U.S. embassy in Iran was violently seized on November 4, 1979, and hostages were taken. Christian Emery, *The Transatlantic and Cold War Dynamics of Iran Sanctions, 1979–80*, 10 COLD WAR HIST. 371, 372 (2010). After the embassy was seized, the United States placed a total embargo on Iran, froze Iranian assets, and suspended diplomatic relations. See *id.*

for an order directing substituted service.¹²⁵ Ultimately, the court held that Federal Rule of Civil Procedure 4(f) permitted substituted service.¹²⁶ In granting the plaintiffs' motion for substituted service, the court ordered that service be effected by telex message in both Farsi and English.¹²⁷ When ordering service of process via telex message,¹²⁸ the court noted that there was no precedent for use of this new technology.¹²⁹ Despite the lack of precedent, the court noted:

Courts . . . cannot be blind to changes and advances in technology. No longer do we live in a world where communications are conducted solely by mail carried by fast sailing clipper or steam ships. Electronic communication via satellite can and does provide instantaneous transmission of notice and information.¹³⁰

The court further noted that service of process by electronic means allows plaintiffs to reach a defendant where physical access to the defendant would be otherwise impossible.¹³¹ After the *New England Merchants* decision recognized that courts should adapt and utilize society's

¹²⁵ *New Eng. Merchs.*, 495 F. Supp. at 78. The plaintiffs argued that, given the strained relations between the United States and Iran, Iran had made service of process pursuant to the Foreign Sovereign Immunities Act ("FSIA") unfeasible. *Id.*; see 28 U.S.C. §§ 1602–1611 (2006). The defendants countered that the FSIA outlined the only means for serving the defendants in Iran. *New Eng. Merchs.*, 495 F. Supp. at 78. They pointed to the fact that the FSIA provided no fallback provision for serving process in the event that diplomatic relations were severed. *Id.* Because Congress was silent, the defendants argued, the methods outlined in the FSIA were therefore the exclusive authorized means to effect service of process. *Id.* Ultimately, the Southern District of New York found that the FSIA did not provide the sole means for providing notice. *Id.* ("I must conclude that a substituted form of service is not precluded under the FSIA and, in fact, is authorized under the Federal Rules of Civil Procedure.").

¹²⁶ *See id.*

¹²⁷ *Id.* at 81. The court's order for substituted service of process also required that the plaintiffs serve a copy of the pleadings on the defendants' counsel that made appearance in court and to file an affidavit with the court's clerk certifying compliance. *Id.*

¹²⁸ Telex messages are messages sent through a telegraphic network that remits a printed copy of the message. See Richard Hill, *On-line Arbitration: Issues and Solutions*, 15 *ARB. INT'L* 199, 201 (1999). Unlike telex messages, faxes remit an exact copy of the message submitted. David A. Sokasits, Note, *Long Arm of the Fax: Service of Process Using Fax Machines*, 16 *RUTGERS COMPUTER & TECH. L.J.* 531, 537 (1990).

¹²⁹ *New Eng. Merchs.*, 495 F. Supp. at 81.

¹³⁰ *Id.*

¹³¹ *Id.* ("No longer must process be mailed to a defendant's door when he can receive complete notice at an electronic terminal inside his very office, even when the door is steel and bolted shut.").

technological advancements, other courts authorized various electronic means of service of process, including fax.¹³²

B. *E-mail Service of Process*

The courts' trend of adopting new methods for effecting service of process as technology advances has continued with e-mail service of process entering the American courts.¹³³ Although e-mail service of process has not been adopted for use on domestic defendants, it has been used extensively for serving elusive foreign defendants.¹³⁴

1. E-mail Service of Process for Foreign Defendants

Courts have reasoned that e-mail service of process on foreign defendants is permitted under Federal Rule of Civil Procedure 4(f)(3).¹³⁵ Rule 4(f) permits service of process on a foreign individual: (1) by internationally agreed-upon means of service reasonably calculated to give notice; (2) by a reasonably calculated method as prescribed by the foreign country's law for service for general actions or as the foreign authority directs to a letter rogatory; or (3) by other means not prohibited by international agreement.¹³⁶ Rule 4(h)(2) authorizes service of process on a foreign corporation by any means authorized under Rule 4(f), except personal delivery under Rule 4(f)(2)(C)(i).¹³⁷ Because the 1993 amendments to Rule 4(f) urge courts to construe Rule 4(f)(3) liberally, courts have interpreted Rule 4(f)(3) as authorizing the use of new technologies for serving foreign defendants.¹³⁸

¹³² Philip Morris USA Inc. v. Veles Ltd., No. 06 CV 2988(GBD), 2007 WL 725412, at *1 (S.D.N.Y. Mar. 12, 2007); *In re Int'l Telemedia*, 245 B.R. at 719–20 (permitting service of process via fax, ordinary mail, and e-mail). *But see* Lim v. Nojiri, No. 10-cv-14080, 2011 WL 2533568, at *3 (E.D. Mich. June 27, 2011) (“[N]either service by fax or e-mail is sufficient to effect service of process under Fed. R. Civ. P. 4 or under Michigan state law.”).

¹³³ *See, e.g.*, Rio Props., Inc. v. Rio Int'l Interlink, 284 F.3d 1007, 1012 (9th Cir. 2002).

¹³⁴ *See* David P. Stewart & Anna Conley, *E-mail Service on Foreign Defendants: Time for an International Approach?*, 38 GEO. J. INT'L L. 755, 764–72 (2007) (examining the common threads in U.S. case law for when e-mail service of process is permitted on foreign defendants).

¹³⁵ *E.g.*, *Rio Props.*, 284 F.3d at 1014–17 (authorizing e-mail service of process on a foreign defendant); *Philip Morris*, 2007 WL 725412, at *2–3; *In re Int'l Telemedia*, 245 B.R. at 719–20.

¹³⁶ FED. R. CIV. P. 4(f); *see also* Stewart & Conley, *supra* note 134, at 760–61 (discussing the provisions of Rule 4(f)).

¹³⁷ FED. R. CIV. P. 4(h)(2).

¹³⁸ *Id.* 4(f) advisory committee's note (1993); Stewart & Conley, *supra* note 134, at 763. In its note accompanying the 1993 amendment of Rule 4, the Advisory Committee stated:

When determining whether to permit service of process by e-mail on a foreign defendant, U.S. courts consider: (1) prior attempts by the plaintiff to serve the defendant by traditional methods of service; (2) the defendant's use of e-mail for communication; and (3) evasion of service by the defendant.¹³⁹

In the 2002 case, *Rio Properties, Inc. v. Rio International Interlink*, the U.S. Court of Appeals for the Ninth Circuit became the first federal appeals court to consider whether service of process on a foreign defendant by e-mail satisfied due process, ultimately holding that it does.¹⁴⁰ In *Rio Properties*, the plaintiff, Rio Properties, Inc., filed an action alleging that the defendant, Rio International Interlink ("RII"), infringed on its trademarks.¹⁴¹ Rio Properties attempted to serve RII

In [cases involving a foreign defendant], the court may direct a special method of service not explicitly authorized by international agreement if not prohibited by the agreement. Inasmuch as our Constitution requires that reasonable notice be given, an earnest effort should be made to devise a method of communication that is consistent with due process and minimizes offense to foreign law.

Id. 4(f) advisory committee's note.

¹³⁹ See Stewart & Conley, *supra* note 134, at 764–72; see also *Rio Props.*, 284 F.3d at 1018 (“[The defendant] structured its business such that it could be contacted *only* via its email address. . . . If any method of communication is reasonably calculated to provide [the defendant] with notice, surely it is email—the method of communication which [the defendant] utilizes and prefers.”); *Philip Morris*, 2007 WL 725412, at *1 (“In its motion for substitute service of process, plaintiff demonstrated that it had attempted to serve the complaint on defendants using traditional means. . . . The Court, on the basis of factual representations, granted plaintiff’s motion for leave for service by fax and email”); *In re Int’l Telemedia*, 245 B.R. at 722 (emphasizing that the defendant “has intentionally concealed his location” in authorizing substituted service of process via e-mail, fax, and ordinary mail). One scholar, however, argues that courts consider (1) the extent to which the proposed methods of service are reasonably calculated to provide the defendant with notice; (2) the futility of traditional methods of service; and (3) the degree to which the defendant has relied on e-mail communications. See Colby, *supra* note 48, at 370–71. Determining futility requires the court to examine the degree to which the defendant is hard to find because: (1) the defendant’s identity is unknown; (2) the defendant’s whereabouts are unknown; and/or (3) the defendant is dodging service. *Id.* at 371.

¹⁴⁰ *Rio Props.*, 284 F.3d at 1012, 1017; see Heather A. Sapp, Comment, *You’ve Been Served!* *Rio Properties, Inc. v. Rio International Interlink*, 43 JURIMETRICS J. 493, 494 (2003). In addition to holding that e-mail service of process satisfied due process, the Ninth Circuit held that Rule 4(f)(3) is not a fallback provision, and, in fact, is as favorable as service under Rule 4(f)(1). *Id.* at 1015 (“[E]xamining the language and structure of Rule 4(f) and the accompanying advisory committee notes, we are left with the inevitable conclusion that service of process under Rule 4(f)(3) is neither a ‘last resort’ nor ‘extraordinary relief.’”).

¹⁴¹ *Rio Props.*, 284 F.3d at 1012–13. Rio Properties operated a gambling enterprise that allowed customers to place wagers on professional sports. *Id.* at 1012. Rio Properties had registered the domain name, *www.playrio.com*. *Id.* RII, a Costa Rican entity, was also engaged in Internet sports gambling. *Id.* RII directed its customers to log-on to *www.riosports.com* to place

multiple times to no avail.¹⁴² First, Rio Properties located a Miami address that RII used when it registered its domain names; however, despite being authorized to accept mail for RII, the international courier was not authorized to accept service on RII's behalf.¹⁴³ Notwithstanding the fact that the international courier was not authorized to accept service, the courier agreed to forward the summons to RII in Costa Rica.¹⁴⁴ After the summons was forwarded, Rio Properties received a phone call from a Los Angeles-based lawyer inquiring about the lawsuit on RII's behalf.¹⁴⁵ Rio Properties asked RII's attorney to accept service of process, but he declined.¹⁴⁶

Unable to effect service of process through traditional methods, Rio Properties moved to effect service of process by e-mail.¹⁴⁷ The Ninth Circuit held that service on RII via e-mail satisfied due process.¹⁴⁸ In so holding, the court emphasized that e-mail was the means most likely to effect actual service of process under the circumstances.¹⁴⁹ The court noted that RII designated e-mail as its preferred method of communication.¹⁵⁰ The court further underscored that service of process via e-mail directly targeted the defendant rather than requiring the use of intermediaries.¹⁵¹

Despite endorsing the use of e-mail service of process in *Rio Properties*, the Ninth Circuit highlighted that e-mail service of process has its

bets. *Id.* Once Rio Properties learned that RII was operating www.riosports.com, it asked RII to cease and desist. *Id.* RII disabled www.riosports.com, but soon after activated a new website, www.betrio.com. *Id.* After the new website was activated, Rio Properties filed the action against RII. *Id.* at 1012–13.

¹⁴² *Id.* at 1013.

¹⁴³ *Id.* In order for an agent to accept service of process on behalf of a corporate entity, that agent must be authorized by appointment or law. FED. R. CIV. P. 4(h)(1)(B).

¹⁴⁴ *Rio Props.*, 294 F.3d at 1013.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 1017–18.

¹⁴⁹ *Id.*

¹⁵⁰ *Rio Props.*, 284 F.3d at 1018 (“In fact, RII structured its business such that it could be contacted *only* via its email address. . . . [O]n its website and print media, RII designated its email address as its preferred contact information.”).

¹⁵¹ *Id.* at 1018 (“[E]mail was the only court-ordered method of service aimed directly and instantly at RII, as opposed to methods of service effected through intermediaries . . .”). Although the Ninth Circuit did not explicitly note in its rationale the fact that the plaintiff had attempted to serve process through multiple means prior to moving for substituted service by e-mail, it may have factored into its decision. *See id.* at 1013.

limitations.¹⁵² The first limitation is the lack of confirmation that a defendant received the e-mail.¹⁵³ Second, the Ninth Circuit noted that there may be difficulties in appending exhibits and attachments in some circumstances.¹⁵⁴ Nevertheless, the Ninth Circuit emphasized that granting service of process by e-mail required fact-based inquiry whereby courts balance e-mail's limitations with its benefits.¹⁵⁵

2. Trend Toward E-mail Service of Process on Individuals in the United States

Although courts have not permitted service of process via e-mail within the United States, a few states have adopted service of process statutes that would permit e-mail service of process in limited circumstances.¹⁵⁶ In 2004, South Carolina enacted the Uniform Electronic Transactions Act, which contains provisions specifically addressing electronic service of process.¹⁵⁷ Section 26-6-190 of the South Carolina law permits e-mail service of process on corporations, partnerships, and unincorporated associations.¹⁵⁸ In order for an e-mail to constitute valid service of process in South Carolina, it must be postmarked by the U.S. Postal Service and must be sent to an e-mail address registered with the South Carolina Secretary of State.¹⁵⁹ Section 26-6-195 also

¹⁵² *Id.* at 1018–19; *see also* Stewart & Conley, *supra* note 134, at 788–92 (noting that e-mail service of process on foreign defendants raises concerns about reliable confirmation of receipt, the enforcement of resulting judgments, and the location of the defendant).

¹⁵³ *Rio Props.*, 284 F.3d at 1018.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.* (“[W]e leave it to the discretion of the district court to balance the limitations of email service against its benefits in any particular case.”).

¹⁵⁶ *See* Jeremy A. Colby, *E-SOP's Fables: Recent Developments in Electronic Service of Process*, J. INTERNET L., June 2006, at 3, 7–9.

¹⁵⁷ S.C. CODE ANN. § 26-6-190 (2007). The Uniform Electronic Transactions Act deals with electronic signatures and commerce. Colby, *supra* note 156, at 7.

¹⁵⁸ S.C. CODE ANN. § 26-6-190; Colby, *supra* note 156, at 8.

¹⁵⁹ S.C. CODE ANN. § 26-6-190; *see also* Colby, *supra* note 156, at 8 (discussing the requirements for e-mail service of process on entities within South Carolina). Section 26-6-20 defines this “electronic postmark” as:

an electronic service provided by the United States Postal Service that provides evidentiary proof that an electronic document existed in a certain form at a certain time and the electronic document was opened or the contents of the electronic document were displayed at a time and date documented by the United States Post Office.

S.C. CODE ANN. § 26-6-20. *But see* Maria N. Vernance, Comment, *E-Mailing Service of Process: It's a Shoe In!*, 36 UWLA L. REV. 247, 303 (2005) (stating that the U.S. Postal Service's Electronic Postmark service had been shut down but that the U.S. Postal Service was in negotiations to relaunch the service).

permits a government agency to effect service of process by e-mail on any vendor, entity, or individual that a governmental agency regulates or with which the government does business.¹⁶⁰ Thus, in certain circumstances, South Carolina permits an entity with a registered e-mail address or an entity doing business with the state government to be served via e-mail.¹⁶¹

New York has also adopted a provision that implicitly permits service of process via e-mail.¹⁶² Rule 308 of the New York Civil Practice Law states that where service of process is “impracticable” using traditional methods, a court may order service in any manner it deems likely to notify the defendant.¹⁶³ In 2004, in *D.R.I., Inc. v. Dennis*, the U.S. District Court for the Southern District of New York permitted service of process by e-mail because service under traditional methods had proven impracticable.¹⁶⁴

Even though New York’s provision governs proceedings only in New York state courts, it demonstrates the potential national reach of e-mail service of process.¹⁶⁵ As Federal Rule of Civil Procedure 4(e)(1) permits service of process to be effected according to state laws in either the jurisdiction in which the court sits or the state where service of process is made, entities throughout the United States are potentially subject to service of process via e-mail provided that the action is pending in federal court in New York.¹⁶⁶ As more states adopt similar provisions permitting e-mail service of process within their own state, such provisions’ effect upon individuals in other states will become more pervasive.¹⁶⁷

3. Advantages and Limitations of E-mail Service of Process

Given the push for e-mail service of process among practitioners, scholars have extensively discussed the advantages and disadvantages arising from e-mail service of process.¹⁶⁸ Some scholars argue that the

¹⁶⁰ S.C. CODE ANN. § 26-6-195; see also Colby, *supra* note 156, at 8–9 (discussing section 26-6-195).

¹⁶¹ Colby, *supra* note 156, at 7–9.

¹⁶² See N.Y. C.P.L.R. 308(5) (McKINNEY 2011).

¹⁶³ *Id.*

¹⁶⁴ *D.R.I., Inc. v. Dennis*, No. 03 Civ. 10026(PKL), 2004 WL 1237511, at *1–2 (S.D.N.Y. June 4, 2003).

¹⁶⁵ See Colby, *supra* note 156, at 6.

¹⁶⁶ FED. R. CIV. P. 4(e)(1); Colby, *supra* note 156, at 6.

¹⁶⁷ See Colby, *supra* note 156, at 6.

¹⁶⁸ See, e.g., Hedges et al., *supra* note 3, at 66–67; Shultz, *supra* note 2, at 1512–13. See generally Stephanie Francis Ward, *Our Pleasure to Serve You: More Lawyers Look to Social Net-*

advantages of e-mail service of process outweigh the disadvantages.¹⁶⁹ These scholars appeal to the extensive use of e-mail by individuals both domestically and abroad.¹⁷⁰ Moreover, serving process by e-mail is efficient, as it costs little, if anything, to send and results in almost instantaneous receipt.¹⁷¹ Further, at least one commentator has argued that service of process through e-mail is more likely to apprise the defendant of the proceedings because it remains in the defendant's inbox until it is opened.¹⁷²

Scholars who advocate for e-mail service of process also point to the fact that the criticisms espoused in *Rio Properties*—the lack of confirmation and the inability to attach documents—are no longer valid concerns.¹⁷³ Specifically, they note that many webmail service providers offer methods to confirm automatically that an e-mail has been delivered and that the recipient has opened the e-mail.¹⁷⁴ Moreover, scholars contend that advancements in technology have eliminated the difficulty of attaching documents to e-mails.¹⁷⁵

Other scholars counter that, although it is now technologically possible to confirm that an e-mail has been delivered and opened, that confirmation does not demonstrate that the defendant in fact read the e-mail.¹⁷⁶ Although the concerns espoused by the Ninth Circuit in *Rio Properties* may no longer be valid in the context of e-mail service of process, some scholars remain skeptical of employing e-mail service of process domestically.¹⁷⁷ In support of their contention that e-mail service of process remains problematic, these scholars emphasize that individuals often maintain multiple e-mail accounts, inboxes have limited

working Sites to Notify Defendants, A.B.A. J., Oct. 2011, at 14 (citing discussions with lawyers about the desirability and feasibility of electronic service of process, including e-mail).

¹⁶⁹ See Hedges et al., *supra* note 3, at 66–67; Lewis, *supra* note 111, at 301–02, 306.

¹⁷⁰ See Hedges et al., *supra* note 3, at 66; Stewart & Conley, *supra* note 134, at 802.

¹⁷¹ See Hedges et al., *supra* note 3, at 66.

¹⁷² See Tamayo, *supra* note 69, at 256; see also Shultz, *supra* note 2, at 1524–25 (quoting Professor Yvonne Tamayo).

¹⁷³ See Hedges et al., *supra* note 3, at 66–67 (highlighting that there is now a free confirmation service and that attachment technology is no longer problematic); see also Shultz, *supra* note 2, at 1525 (noting that with the invention of improved return receipt procedures in e-mail, confirmation does not remain as problematic as espoused in *Rio Properties*).

¹⁷⁴ See Hedges et al., *supra* note 3, at 67; Shultz, *supra* note 2, at 1525.

¹⁷⁵ See Hedges et al., *supra* note 3, at 67; Tamayo, *supra* note 69, at 254.

¹⁷⁶ See Matthew R. Schreck, *Preventing “You’ve Got Mail” from Meaning “You’ve Been Served”*: How Service of Process by E-mail Does Not Meet Constitutional Procedural Due Process Requirements, 38 J. MARSHALL L. REV. 1121, 1134–36 (2005); Shultz, *supra* note 2, at 1525. But see Colby, *supra* note 156, at 4–5 (noting that U.S. courts do not require actual receipt of the summons and complaint for a court to determine that process was effectively served).

¹⁷⁷ See Schreck, *supra* note 176, at 1140; Shultz, *supra* note 2, at 1525.

storage capacities, and there is no way to confirm whether an attachment has been read.¹⁷⁸

C. Service of Process via Social Networking

As technology continues to advance, there has been a push for allowing service of process through social networking sites such as Facebook and Myspace.¹⁷⁹ Australia was the first country to permit service via social networking sites.¹⁸⁰ In 2008, the Australian Capital Territory Supreme Court, in *MKM Capital Property Ltd. v. Corbo*, approved service on the defendants by sending them private messages on Facebook with the legal documents attached.¹⁸¹ The plaintiff had made several attempts to effectuate service of a default judgment in person on the Australian defendants.¹⁸² After matching up the defendants with their Facebook profiles, the plaintiff petitioned the court to permit service through Facebook, which the court granted.¹⁸³

Since Australia allowed service through social networking sites, a number of other countries have followed suit.¹⁸⁴ Canada and New Zealand have each permitted service through Facebook.¹⁸⁵ Further, in 2009, the United Kingdom allowed an injunction to be served by Twitter.¹⁸⁶

¹⁷⁸ See Schreck, *supra* note 176, at 1140; Shultz, *supra* note 2, at 1525.

¹⁷⁹ Ward, *supra* note 168, at 14–15; Bonnie Malkin, *Australian Couple Served with Legal Documents via Facebook*, TELEGRAPH (Dec. 16, 2008), http://www.telegraph.co.uk/news/news_topics/howaboutthat/3793491/Australian-couple-served-with-legal-documents-via-Facebook.html.

¹⁸⁰ Browning, *supra* note 3, at 181; see Hedges et al., *supra* note 3, at 68–69.

¹⁸¹ Hedges et al., *supra* note 3, at 68–69; see also Browning, *supra* note 3, at 181 (discussing *MKM Capital*). The court ordered that service be made by: (1) leaving a sealed copy of the court order at the defendants' last known address; (2) sending a copy of the default judgment via e-mail; and (3) sending a Facebook message to both of the defendants' Facebook accounts stating that default judgment had been entered and outlining the terms of the default judgment. Hedges et al., *supra* note 3, at 68–69.

¹⁸² See Browning, *supra* note 3, at 181; Hedges et al., *supra* note 3, at 68.

¹⁸³ See Browning, *supra* note 3, at 181; Hedges et al., *supra* note 3, at 68–69. The plaintiff used the defendant's e-mail address to locate her Facebook page. Browning, *supra* note 3, at 181. Because the defendants' profiles were public, the attorneys for the plaintiff were able to ensure that the Facebook profiles belonged to the defendants by corroborating identifiable information derived from their loan applications such as birthdays, lists of friends, and e-mail addresses. *Id.*; Hedges et al., *supra* note 3, at 68.

¹⁸⁴ Browning, *supra* note 3, at 182.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

Until 2011, no U.S. court had permitted service through social networking sites.¹⁸⁷ In May 2011, in *Mpafe v. Mpafe*, however, the Fourth District Family Court of Minnesota authorized the plaintiff in a divorce action to serve process on her husband through e-mail, Facebook, Myspace, or any other social networking site.¹⁸⁸ The plaintiff had not seen her husband in over a year and assumed that he had returned to the Côte d'Ivoire.¹⁸⁹ The court stated that although it had considered service of process by publication, it rejected it because "it [was] unlikely that Respondent would ever see this. . . . The traditional way to get service by publication is antiquated and is prohibitively expensive. Service is critical, and technology provides a cheaper and hopefully more effective way of finding Respondent."¹⁹⁰ Thus, the court in *Mpafe*, recognizing the limitations of service by publication, authorized service of process via e-mail and social networking sites.¹⁹¹

D. Text Message Service: Australia

Whereas U.S. courts have slowly permitted service through new technologies like e-mail and social networking sites, Australian courts have readily embraced new technologies.¹⁹² In fact, text messages sent by mobile phones have been used numerous times for service in Australia.¹⁹³ Rule 10.24 of the Federal Court Rules of Australia governs substituted service of process in Australia.¹⁹⁴ Specifically, the rule for substituted service provides that when it is impractical for a plaintiff to serve process on the defendant in the ways prescribed by the Federal Court Rules, the court may execute an order for substituted service outlining the procedures the plaintiff is to employ.¹⁹⁵ Rule 10.24 fur-

¹⁸⁷ See *Mpafe v. Mpafe*, No. 27-FA-11 (4th Dist. Family Ct. of Minn. May 10, 2011) (order for service of publication on the Internet).

¹⁸⁸ *Id.*; see also Ward, *supra* note 168, at 14 (discussing *Mpafe*).

¹⁸⁹ See Ward, *supra* note 168, at 14.

¹⁹⁰ *Mpafe*, No. 27-FA-11.

¹⁹¹ *Id.*

¹⁹² Compare *Rio Props.*, 284 F.3d at 1017–18 (permitting service of process by e-mail in 2002 and noting its potential issues), with *Child Support Registrar Applicant v Leigh* [2008] FMCAfam 1424, 2008 WL 5543896, at para. 47 (Austl.) (noting that the defendant was given notice of the proceedings by text message).

¹⁹³ See, e.g., *Yousif v Commonwealth Bank of Austl. (No. 2)* [2011] FCA 58, 2011 WL 364929 at para. 5–7 (Austl.); *Leigh*, 2008 WL 5543896, at para. 47.

¹⁹⁴ Federal Court Rule 10.24 (2011) (Austl.), available at <http://www.comlaw.gov.au/Details/F2011L01551>.

¹⁹⁵ See *id.* The text of the rule provides: "If it is not practicable to serve a document on a person in a way required by these Rules, a party may apply to the Court . . . for an order . . . substituting another method of service . . ." *Id.*

ther allows the court to specify that once the plaintiff effects service of process as ordered by the court, after a given period of time has elapsed, the court will accept that service of process has been effected irrespective of whether the defendant has received actual notice.¹⁹⁶

In 2008, in *Child Support Registrar Applicant v. Leigh*, the Federal Magistrates Court in Australia ordered that the plaintiff notify the defendant of the proceedings through text message.¹⁹⁷ In addition, in 2010 in *Jemella Australia Pty Ltd. v. Bouobeid*, the Federal Court of Australia ordered that the defendant be provided notice of various court proceedings through text message and ordered that the defendant would be presumed to be served five business days after the court's order was fulfilled.¹⁹⁸ Thus, the Australian courts have permitted service via text messages in numerous cases.¹⁹⁹

III. WHETHER TEXT MESSAGE SERVICE OF PROCESS SATISFIES DUE PROCESS AND IS TECHNOLOGICALLY FEASIBLE

Although Australia has permitted service through text messaging, this technology has not been used in the United States to effect service of process.²⁰⁰ Section A of this Part argues that text message service of process satisfies constitutional due process.²⁰¹ But, section B then explains that the current limits in text message technology counsel against its widespread use at this time.²⁰²

A. Text Message Service of Process Satisfies Constitutional Due Process

Service of process via text message does not constitute a *per se* violation of constitutional due process.²⁰³ The “reasonably calculated” standard articulated by the U.S. Supreme Court in 1950 in *Mullane v. Central Hanover Bank & Trust Co.* dictates whether a given technology is

¹⁹⁶ *Id.* 10.24(c).

¹⁹⁷ 2008 WL 5543896, at para. 47 (“[I]n my view Mr. Leigh has delayed wherever possible. He quite clearly avoided service that I had to make an order that required him to be given notice of the proceedings by text message.”).

¹⁹⁸ 2010 WL 1533394, at para. 4. The court ordered that documents be served by (1) posting a copy at the defendant's residence, and (2) sending a text message to the defendant's cell phone describing the documents sent and notifying him that those documents had indeed been sent. *Id.*

¹⁹⁹ *Jemella*, 2010 WL 1533394, at para. 4; *Child Support*, 2008 WL 5543896, at para. 47.

²⁰⁰ See *supra* notes 192–199 and accompanying text.

²⁰¹ See *infra* notes 203–218 and accompanying text.

²⁰² See *infra* notes 219–249 and accompanying text.

²⁰³ See *Mullane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 314 (1950); *supra* notes 49–54 and accompanying text.

a constitutional method for service of process.²⁰⁴ *Mullane's* standard is inherently flexible.²⁰⁵ It is not bound by any particular technology, but rather considers whether a particular method of service is directly targeted at the defendant and is reasonably likely to apprise that defendant of the pending proceedings.²⁰⁶

Text message service of process directly targets a given defendant.²⁰⁷ A cell phone number is exclusively held by an individual; that is, a cell phone number is uniquely linked to a particular person.²⁰⁸ Therefore, service of process by text message is aimed directly at the defendant.²⁰⁹

In fact, service of process by text message is more likely to apprise a defendant of the proceedings than publication service of process.²¹⁰ Service of process by publication, which the Supreme Court has deemed constitutional, is not targeted at a given individual, but to the community as a whole.²¹¹ By contrast, a text message to a defendant's cell phone is aimed directly at the defendant.²¹² Thus, because publication remains a valid constitutional method for rendering service, text messages must also satisfy due process, as they are directly aimed at an individual and therefore more likely to apprise the defendant of the proceedings.²¹³

Furthermore, text message service fulfills *Mullane's* requirement that the means employed to effect service be a means that a person de-

²⁰⁴ *Mullane*, 339 U.S. at 314.

²⁰⁵ *See id.*

²⁰⁶ *See id.*; *see also* Hedges et al., *supra* note 3, at 61 (quoting *Rio Props, Inc. v. Rio Int'l Interlink*, 284 F.3d 1007, 1017 (9th Cir. 2002)) (stating that the Constitution does not mandate a particular method for effecting service of process).

²⁰⁷ *See Local Number Portability*, VERIZON, http://support.verizonwireless.com/faqs/Switch%20To%20Verizon%20Wireless/faq_local_number_portability.html (last visited Oct. 29, 2012) (discussing how an individual can retain his or her cell phone number when changing carriers).

²⁰⁸ *See id.*

²⁰⁹ *See Mullane*, 339 U.S. at 314–18.

²¹⁰ *See Boddie v. Connecticut*, 401 U.S. 371, 382 (1971); *Mullane*, 339 U.S. at 314–18.

²¹¹ *See Boddie*, 401 U.S. at 382 (“[S]ervice by publication . . . is the method of notice least calculated to bring to a potential defendant’s attention the pendency of judicial proceedings.” (citing *Mullane*, 339 U.S. at 315)); *Mullane*, 339 U.S. at 314–18; *Mpafe v. Mpafe*, No. 27-FA-11 (4th Dist. Family Ct. of Minn. May 10, 2011) (declining service by publication in favor of electronic means).

²¹² *See Boddie*, 401 U.S. at 382 (discussing that publication service of process is the least calculated method of service); *Mullane*, 339 U.S. at 315 (stating that a method of service is reasonably calculated if it is not less likely to apprise the defendant than other feasible means).

²¹³ *See Boddie*, 401 U.S. at 382; *Mullane*, 339 U.S. at 315.

siring to contact the defendant would use.²¹⁴ Calling or texting a given individual on that individual's cell phone is a means of contacting someone that is used in the ordinary course of daily living.²¹⁵ In fact, with over eighty percent of adults in the United States owning a cell phone, it is arguably the mode of communication that people use most.²¹⁶

Thus, text message service of process passes constitutional muster.²¹⁷ It satisfies both prongs of the *Mullane* test—it is reasonably calculated to apprise the defendant of the pending proceedings, and it is a means of communication that would be utilized by an individual desiring to contact the defendant.²¹⁸

B. *The Current State of the Technology: The Limitations of Text Message Service of Process*

Although effecting service of process by text message satisfies constitutional due process, the limitations imposed by text message service of process currently makes its implementation unfeasible.²¹⁹ These limitations include: (1) the informality associated with text messages; (2) the lack of confirmation procedure, especially in light of the number of cell phone service providers; and (3) the inability to attach documents to a text message.²²⁰

Providing a defendant with notice of pending proceedings is intrinsically important to notions of justice.²²¹ The inherent importance of service of process in guaranteeing an individual's due process rights are satisfied explains, in part, why U.S. courts have resisted effecting

²¹⁴ See *Mullane*, 339 U.S. at 315.

²¹⁵ See *id.*

²¹⁶ Smith, *supra* note 13, at 2; Zickuhr, *supra* note 13, at 2.

²¹⁷ See *Boddie*, 401 U.S. at 382; *Mullane*, 339 U.S. at 314–18; Smith, *supra* note 13, at 2.

²¹⁸ See *Boddie*, 401 U.S. at 382; *Mullane*, 339 U.S. at 314–15.

²¹⁹ See *Boddie*, 401 U.S. at 382; *Mullane*, 339 U.S. at 314–15; *cf. Rio Props.*, 284 F.3d at 1018 (noting that the limitations of e-mail service of process are the technological issues with attaching documents and the lack of confirmation that the e-mail has been delivered); Hedges et al., *supra* note 3, at 72 (contending that the inability to attach documents in e-mails is no longer a valid criticism for refusing to permit e-mail service of process); Shultz, *supra* note 2, at 1525–27 (stating that the lack of confirmation and inability to attach documents are problematic for permitting service of process through Facebook).

²²⁰ See *infra* notes 221–249 and accompanying text; *cf. Hedges et al.*, *supra* note 3, at 71–74 (discussing the limitations and criticisms of e-mail service of process); Shultz, *supra* note 2, at 1525–27 (discussing the limitations and criticisms of service of process through Facebook).

²²¹ See U.S. CONST. amend. XIV, § 1; *Mullane*, 339 U.S. at 313 (noting that due process, at a minimum, requires notice and the opportunity to be heard).

service of process domestically through electronic means.²²² To the courts, electronic service of process does not provide the same ritualistic formality and finality as the hardcopy traditional methods of service.²²³

Although e-mail is used extensively in formal business communications, text messages have not been utilized in the same manner.²²⁴ Text messages are more colloquial and lack the formalities associated with traditional documents and correspondence.²²⁵ This does not affect whether service of process through text message satisfies constitutional due process, but it exemplifies a reason why courts should tread lightly in permitting service of process via text message.²²⁶ Given that providing notice of pending proceedings is integral to notions of “fair play,” serving process through a text message may be too informal to meet that central requirement.²²⁷

In addition to the formality concerns, the inability to attach documents to a text message makes text messages an ineffective means for effecting service of process.²²⁸ In the United States, when service of process is effected, a copy of the summons and complaint must be issued to the defendant.²²⁹ Because of the technological limitations of

²²² See Hedges et al., *supra* note 3, at 73–74.

²²³ *Id.* at 72–74.

²²⁴ Compare *Rio Props.*, 284 F.3d at 1017–18 (emphasizing that the court was permitting e-mail service of process on the defendant because e-mail was the defendant’s formal address for communications), with Rebecca E. Grinter & Margery Eldridge, *Wan2tlk?: Everyday Text Messaging*, 5 CHI 2003: NEW HORIZONS 441, 447–48 (2003) (reporting findings on the informal terms used in text messages), available at http://dl.acm.org/ft_gateway.cfm?id=642688.

²²⁵ See Grinter & Eldridge, *supra* note 224, at 447–48; cf. *Ehrenfeld v. Salim a Bin Mahfouz*, No. 04 Civ. 9641(RCC), 2005 WL 696769, at *3 (S.D.N.Y. Mar. 23, 2005) (refusing to authorize e-mail service of process because the defendant’s e-mail address was only an informal means of communication); Hedges et al., *supra* note 3, at 62–63 (noting that courts have denied service of process via e-mail where e-mail is used as an informal means of communication).

²²⁶ See *Mullane*, 339 U.S. at 314–15; Hedges et al., *supra* note 3, at 62, 72–73.

²²⁷ See Hedges et al., *supra* note 3, at 72–73 (noting that one of the remaining criticisms against electronic service of process is that it lacks the ritual function that only paper-based, in-hand service can provide, but arguing that the establishment of the federal e-filing system demonstrates that the federal courts have dismissed the ritual importance of paper).

²²⁸ Cf. *Rio Props.*, 284 F.3d at 1018 (noting that one of the limitations for e-mail service of process is an inability to attach documents); Hedges et al., *supra* note 3, at 72 (contending that difficulty in appending documents is arguably no longer a valid criticism of e-mail service of process); Shultz, *supra* note 2, at 1527 (discussing the inability to attach documents in consideration of whether service of process via Facebook messages is constitutional).

²²⁹ FED. R. CIV. P. 4(c)(1).

text messages, sending a text message to the defendant would not allow copies of the documents to be remitted to the defendant.²³⁰

There are three potential solutions for this inability to append exact copies of a summons and complaint to a text message, each of which requires multiple methods of service.²³¹ First, the contents of the documents could be paraphrased in the body of the message and a link provided that would take the defendant to a copy of the summons and complaint.²³² Second, the text message could provide the defendant with a summary of the proceedings—party names, type of lawsuit, where the lawsuit is pending—and notify the defendant that a copy of the summons and complaint have been sent to the defendant at a specific e-mail or mailing address.²³³ Third, images of the documents could be sent to the defendant's cell phone through multimedia messages in addition to the text message.²³⁴ As text message technology currently

²³⁰ See *id.*; cf. Hedges et al., *supra* note 3, at 72 (discussing the inability to append documents in the context of e-mail); Shultz, *supra* note 2, at 1527 (highlighting the inability to attach documents through Facebook).

²³¹ See *infra* note 232–235 and accompanying text; cf. Colby, *supra* note 156, at 10 (discussing solutions for the problem of e-mail attachments).

²³² Cf. Colby, *supra* note 156, at 10 (stating that to circumvent the issue of e-mail filters stripping attachments or making attachments difficult to read, a text message with a hyperlink could be sent to provide the defendant with the papers to be served).

²³³ Cf. *id.* (discussing solutions in the context of e-mail service of process).

²³⁴ Cf. *id.* (analyzing e-mail service of process). This solution poses additional problems, however, as it would require that: (1) a defendant's cell phone have the capability to receive multimedia messages, and (2) the defendant's cell phone agreement permits receipt of this type of data. See *Support: Picture Messaging (MMS) Feature Overview*, T-MOBILE (June 7, 2012, 10:20 AM), <http://support.t-mobile.com/docs/DOC-3310>; *Wireless Prepaid Plans: GoPhone*, AT&T, <http://www.att.com/shop/wireless/plans/prepaidplans.html> (last visited Oct. 29, 2012) (noting that multimedia messages are available for compatible phones only). Moreover, the size of the image may be too small to allow the defendant to read the text of the documents. Cf. *Rio Props.*, 284 F.3d at 1018 (discussing technology problems in attaching documents in the context of e-mail service of process); Colby, *supra* note 156, at 10 (discussing filters in e-mail that render attachments illegible).

A critique of each of these solutions is that they require defendants to take a subsequent step to give themselves actual notice of the details of the proceedings. See *Mullane*, 339 U.S. at 314–15, 319; cf. Colby, *supra* note 156, at 4–5 (explaining that service of process by e-mail requires defendants to take additional steps to allow for actual notice). A defendant not pursuing the additional step required for actual notice, however, would most likely not affect the constitutional sufficiency of the tandem service of process through text message and another means. Cf. Colby, *supra* note 156, at 4–5, 10 (contending that ignoring an e-mail containing service to combat the sufficiency of service of process will most likely fail because U.S. courts have never required actual receipt for service of process to be constitutionally sufficient, and suggesting potential multi-technology solutions in the context of e-mail). Although courts have permitted service of process through multiple methods simultaneously, a two-step process required for completely effecting service of process has not been examined. See, e.g., *New Eng. Merchs. Nat'l Bank v. Iran Power Gen-*

stands, however, service of process cannot be completed entirely through text message.²³⁵

A further limitation presented by service of process through text message is the lack of confirmation that the text message has been delivered and read.²³⁶ Traditional forms of service of process—in-person, mail through the U.S. Postal Service, and even fax—all remit a confirmation that the documents have been delivered.²³⁷ Because the *Mullane* standard does not require actual notice, a lack of confirmation that the text message has been read is likely not determinative.²³⁸ But, the inability to confirm that the defendant has received the text message is problematic—without the confirmation, there is no way to ascertain that the text message conclusively has been sent to the defendant.²³⁹ Without this confirmation, there is no means of proving that the plaintiff took reasonable steps to notify the defendant; it is crucial to have proof that the text message was delivered effectively.²⁴⁰

Currently, some wireless service providers have applications capable of notifying users that a message has been delivered and read.²⁴¹ Apple's

eration & Transmission Co., 495 F. Supp. 73, 81 (S.D.N.Y. 1980) (permitting service of process by telex message and by serving pleadings on all present counsel); *In re Int'l Telemedia Assocs., Inc.*, 245 B.R. 713, 719–20 (Bankr. N.D. Ga. 2000) (permitting full service of process via fax, ordinary mail, and e-mail).

²³⁵ *Cf. Rio Props.*, 284 F.3d at 1018 (emphasizing that the inability to attach documents in e-mails was a limitation); Colby, *supra* note 156, at 10 (suggesting multi-step systems to overcome the potential problems associated with attachments in e-mail); Hedges et al., *supra* note 3, at 72 (discussing attaching documents in the context of e-mail); Shultz, *supra* note 2, at 1527 (examining the inability to append documents to a Facebook message).

²³⁶ *Cf. Rio Props.*, 284 F.3d at 1018 (noting the lack of confirmation in the context of e-mail service of process); Hedges et al., *supra* note 3, at 66–67 (examining e-mail service); Shultz, *supra* note 2, at 1525–26 (discussing the lack of confirmation for service of process via Facebook).

²³⁷ FED. R. CIV. P. 4(c)(1) (requiring the plaintiff to submit an affidavit to the court that service of process has been made); Sokasits, *supra* note 128, at 537–38 (discussing fax machines' confirmation pages); *Add Insurance & Extra Services*, U.S. POSTAL SERVICE, <https://www.usps.com/ship/insurance-and-extra-services.htm?> (last visited Oct. 29, 2012). E-mail may also remit a confirmation. See *supra* notes 173–174 and accompanying text.

²³⁸ See *Mullane*, 339 U.S. at 314–15, 319; *cf. Colby*, *supra* note 156, at 4–5 (noting that U.S. courts have not required actual receipt when determining constitutional sufficiency, and, therefore, that a defendant's failure to read an e-mail containing service would not render the service void).

²³⁹ See FED. R. CIV. P. 4(c)(1); *Mullane*, 339 U.S. at 314; *cf. Shultz*, *supra* note 2, at 1525–26 (arguing that lack of confirmation features for Facebook is problematic for permitting service of process by Facebook but is not determinative).

²⁴⁰ See *Mullane*, 339 U.S. at 314; *cf. Rio Props.*, 284 F.3d at 1018 (noting the inability to confirm receipt of an e-mail); Hedges et al., *supra* note 3, at 66–67 (discussing lack of confirmation in the context of e-mail); Shultz, *supra* note 2, at 1525–26 (discussing lack of confirmation in the context of e-mail and Facebook).

²⁴¹ See *infra* notes 242–246 and accompanying text.

iMessage and Blackberry's Blackberry Messenger service ("BBM") each permit users to receive notifications that their message has been successfully delivered and has been read by the recipient.²⁴² These services are limited to specific circumstances, however—iMessage can be utilized only by other iPhone users,²⁴³ and BBM can be utilized only by other Blackberry users.²⁴⁴ Thus, although there are systems in place that confirm that a text message has been received and read, there is no universal system among service providers.²⁴⁵ Until a universal confirmation system is established, the ability to use text messages for effecting service of process should be circumscribed.²⁴⁶

Ultimately, notwithstanding that service of process through text message is constitutionally sufficient, as the technology currently exists, it is not feasible.²⁴⁷ The lack of a universal system among the service providers to remit confirmation of receipt of a text message and the inability to attach documents to a text message impose the biggest limitations.²⁴⁸ These limitations, in combination with the informality of text messages, caution against the widespread adoption of text message service of process at the current time.²⁴⁹

²⁴² *Get to Know BBM*, BLACKBERRY, <http://us.blackberry.com/apps-software/blackberry-messenger/> (last visited Oct. 29, 2012); *Messages*, APPLE, <http://www.apple.com/ios/messages/> (last visited Nov. 7, 2012). WhatsApp, a "cross-platform mobile messaging app," allows users to receive notifications when their message has been uploaded to the server and delivered to the recipient. *Frequently Asked Questions*, WHATSAPP INC., <http://www.whatsapp.com/faq/> (last visited Oct. 29, 2012).

²⁴³ *Messages*, *supra* note 242 (stating that the iMessage system can be utilized by all iOS devices).

²⁴⁴ *Get to Know BBM*, *supra* note 242. WhatsApp allows users across service providers to utilize the program; however, it does require a smartphone. *Frequently Asked Questions*, *supra* note 242.

²⁴⁵ See *Get to Know BBM*, *supra* note 242; *Messages*, *supra* note 242.

²⁴⁶ Cf. Hedges et al., *supra* note 3, at 67 (contending that the court's criticism in *Rio Properties*—that there is a lack of confirmation of receipt for e-mails—is no longer valid because a free online confirmation service is now available).

²⁴⁷ See *supra* notes 203–246 and accompanying text. These limitations of text messages are not necessarily determinative if the balancing test espoused by the Ninth Circuit is adopted. See *Rio Props.*, 284 F.3d at 1018. Under this balancing test, courts would weigh the benefits of text message service of process against the limitations, and determine whether in a given case, text message service should be utilized. *Id.* Under this balancing test, text message service of process, with its extensive technological limitations, may still be permitted provided that the facts of the case require its use. See *id.*; see also Stewart & Conley, *supra* note 134, at 764–72 (outlining the factors that courts consider when deciding whether to authorize e-mail service of process on a foreign defendant).

²⁴⁸ See *supra* notes 228–246 and accompanying text.

²⁴⁹ See *supra* notes 221–246 and accompanying text.

IV. BEYOND TECHNOLOGICAL LIMITATIONS: A FRAMEWORK FOR GRANTING SERVICE BY TEXT MESSAGE

Given the efficiency and constitutional sufficiency of text message service of process, if the technological limitations described in Part III are minimized, text message service should be utilized.²⁵⁰ There are, however, certain restrictions that should be imposed upon its use.²⁵¹ This Part assumes that the technological limitations of text messages—the inability to attach documents and the lack of confirmation procedures—can be mitigated.²⁵² Section A suggests the procedural framework under which text message service of process should be permitted.²⁵³ Section B then argues that text message service of process should be limited to service on natural persons.²⁵⁴

A. *Procedural Framework for Courts Analyzing Whether to Permit Service by Text Message*

Courts' analysis for permitting text message service of process should be analogous to the one currently used to determine the permissibility of e-mail service of process on a foreign defendant.²⁵⁵ First, like the procedure for e-mail service of process, plaintiffs should petition the court to serve process via text message.²⁵⁶ Next, when analyzing whether text message service of process should be authorized, courts should conduct the same multifactor test for analyzing whether e-mail service of process on a foreign defendant should be permitted.²⁵⁷ Under that analysis, courts look to three factors: (1) prior at-

²⁵⁰ See *Rio Props., Inc. v. Rio Int'l Interlink*, 284 F.3d 1007, 1018 (9th Cir. 2002); *supra* notes 203–249 and accompanying text.

²⁵¹ See *infra* notes 255–286 and accompanying text.

²⁵² See *supra* notes 219–249 and accompanying text.

²⁵³ See *infra* notes 255–273 and accompanying text.

²⁵⁴ See *infra* notes 274–286 and accompanying text.

²⁵⁵ See Stewart & Conley, *supra* note 134, at 764–72.

²⁵⁶ Cf. FED. R. CIV. P. 4(f)(3) (requiring a court order for substituted service when serving a foreign defendant); N.Y. C.P.L.R. 308(5) (McKINNEY 2011) (permitting a court to order substituted service of process where service under traditional methods is “impracticable”).

²⁵⁷ Cf. Hedges et al., *supra* note 3, at 69 (arguing that the constitutional sufficiency of Facebook service of process turns on how frequently users check their Facebook messages); Stewart & Conley, *supra* note 134, at 764–72 (discussing the framework utilized by courts when determining whether a plaintiff should be permitted to serve a foreign defendant by e-mail); Melodie M. Dan, Note, *Social Networking Sites: A Reasonably Calculated Method to Effect Service of Process*, 1 CASE W. RES. J.L. TECH. & INTERNET 183, 216 (2010) (proposing a balancing test similar to that articulated by the U.S. Court of Appeals for the

tempts by the plaintiff to serve the defendant by traditional methods of service; (2) the defendant's use of e-mail for communication; and (3) evasion of service by the defendant.²⁵⁸ The first two factors are the most important in determining whether a court should authorize text message service of process in a given case.²⁵⁹

The first factor—prior attempts by the plaintiff to serve the defendant by traditional means—is important in determining whether to permit service of process by text message.²⁶⁰ Because of the limitations of text messages, service via text message should not be treated like the gold standards of service of process, such as in-person or mailed service, which are permitted without leave of the court.²⁶¹ These traditional, tried-and-true methods of service of process carry a lower risk that the defendant will not be apprised of the pending proceedings.²⁶² Therefore, those traditional methods should be attempted before text message service of process is employed.²⁶³

The second factor—defendant's use of a cell phone, and, specifically, text messages for communication—is the most important factor in the court's determination of whether service of process via text message should be allowed for a given defendant.²⁶⁴ How extensively the particular defendant utilizes a cell phone contributes directly to whether a text message would satisfy the *Mullane* test for constitutional sufficiency of service of process.²⁶⁵ The more frequently a defendant uses a cell phone, especially the text message feature, the more likely it is that text message service of process will reach the defendant.²⁶⁶ Should a defen-

Ninth Circuit in the 2002 case, *Rio Properties, Inc. v. Rio International Interlink*, for determining whether to authorize service of process by social networking sites).

²⁵⁸ See, e.g., Colby, *supra* note 48, at 370–71; Stewart & Conley, *supra* note 134, at 764–72; *supra* note 139 and accompanying text.

²⁵⁹ Cf. Stewart & Conley, *supra* note 134, at 764–70 (discussing the analysis in the context of e-mail).

²⁶⁰ See *Mullane v. Cent. Hanover Bank & Trust Co.*, 339 U.S. 306, 314 (1950); cf. *Williams v. Adver. Sex LLC*, 231 F.R.D. 483, 486–88 (N.D. W. Va. 2005) (authorizing service of process via e-mail due to the plaintiff's extensive efforts to serve the defendants prior to the motion).

²⁶¹ Compare *supra* notes 67–70, 105–111 and accompanying text (discussing in-person and mailed service of process), with *supra* notes 219–249 and accompanying text (discussing the limitations of text messages as methods for service of process).

²⁶² See Stewart & Conley, *supra* note 134, at 764–67.

²⁶³ *Id.*

²⁶⁴ See *Mullane*, 339 U.S. at 314; Stewart & Conley, *supra* note 134, at 767–70.

²⁶⁵ See *Mullane*, 339 U.S. at 314 (stating that the standard is whether a method of service of process is reasonably calculated to apprise the defendant of the pending proceedings).

²⁶⁶ See *id.*

dant seldom use a cell phone, text message service of process will most likely fail *Mullane's* "reasonably calculated" requirement.²⁶⁷

Further, it should be determined whether the cell phone number identified by the plaintiff can actually be linked to the defendant.²⁶⁸ Although the plaintiff may have a particular cell phone number for the defendant, it does not mean that the defendant can still be reached at that number.²⁶⁹ Again, proof that the defendant currently uses a given cell phone number is important for determining whether service of process via text message is reasonably calculated and should be permitted by the courts.²⁷⁰

When text message service of process is authorized, it should be one method among many that the court orders.²⁷¹ In permitting service of process under substituted methods, courts usually order service of process by multiple methods.²⁷² The use of multiple methods of ser-

²⁶⁷ *Cf. id.* at 318 (permitting service of process by publication when the defendants' names and addresses were unknown, but finding that service by publication did not satisfy the reasonably calculated standard when the defendant's names and addresses were known).

²⁶⁸ *Cf. U.S. Commodity Futures Trading Comm'n v. Aliaga*, 272 F.R.D. 617, 620–21 (S.D. Fla. 2011) (authorizing service of process by e-mail on one defendant because there was a link between him and two e-mail addresses, but declining to permit e-mail service as to the other defendant because the plaintiff could only demonstrate the e-mail address was linked to the defendant's husband); *Pfizer Inc. v. Domains by Proxy*, No. Civ.A.3:04 CV 741 (SR), 2004 WL 1576703, at *1–2 (D. Conn. July 13, 2004) (declining to permit service of process by e-mail, in part because the plaintiff provided six possible e-mail addresses for the defendants, demonstrating that the e-mail addresses were not sufficiently linked to the defendants to meet the *Mullane* standard); Shultz, *supra* note 2, at 1526 (arguing that a potential difficulty in permitting service of process via Facebook is linking a particular profile to the defendant).

²⁶⁹ *Cf. Shultz*, *supra* note 2, at 1526 (discussing linking a Facebook profile to a particular individual).

²⁷⁰ *See Mullane*, 339 U.S. at 314, 318; *cf. Shultz*, *supra* note 2, at 1526–27 (noting that one major difficulty for permitting Facebook service of process is proving that a particular profile is the defendant's).

²⁷¹ *Cf. Chanel, Inc. v. Zhixian*, No. 10-CV-60585, 2010 WL 1740695, at *3–4 (S.D. Fla. Apr. 29, 2010) (permitting e-mail service of process, but requiring service by publication as well given the limitations of e-mail); *In re Int'l Telemedia Assocs., Inc.*, 245 B.R. 713, 719–20 (Bankr. N.D. Ga. 2000) (ordering process to be served by fax, ordinary mail, and e-mail); Dan, *supra* note 257, at 216 (arguing that if service of process is permitted via social networking sites, it should be combined with other inexpensive and reliable methods of service); Shultz, *supra* note 2, at 1527–28 (stating that if service through Facebook is coupled with other methods of service of process, the likelihood that it is constitutionally sufficient increases).

²⁷² *See, e.g., New Eng. Merchs. Nat'l Bank v. Iran Power Generation & Transmission Co.*, 495 F. Supp. 73, 81 (S.D.N.Y. 1980); *In re Int'l Telemedia*, 245 B.R. at 720.

vice makes it more likely that notice will reach the defendant, and, therefore, makes the notice more reasonably calculated.²⁷³

B. *Limits on the Entities Permitted to Be Served by Text Message*

Text message service of process should be used only for serving natural persons, not business entities.²⁷⁴ Whereas many businesses have a distinct business e-mail address, which its customers can use to contact the business, businesses do not typically have a designated cell phone number.²⁷⁵ Moreover, due to the massive size of some corporations, service of process by text message is arguably not reasonably calculated to apprise those entities of the proceedings against them.²⁷⁶ By contrast, there is a direct link between an individual and a cell phone—if someone wants to reach an individual directly, they will dial that person's cell phone number.²⁷⁷

The only way that a business entity could be served by text message using a cell phone is if states adopted provisions similar to South Carolina's e-mail service of process statute.²⁷⁸ Under that framework, entities incorporated in the state would be required to register a cell phone number with the Secretary of State.²⁷⁹ Text message service of process under this framework would amount to consent to service of process by

²⁷³ See *Mullane*, 339 U.S. at 314; cf. *New Eng. Merchs.*, 495 F. Supp. at 81 (ordering service of process by telex message to the defendants in Farsi and English, and serving a copy of the pleadings on all counsel that appeared on behalf of the defendants); *In re Int'l Telemedia*, 245 B.R. at 720 (ordering service of process via fax, ordinary mail, and e-mail); Shultz, *supra* note 2, at 1527–28 (stating that coupling Facebook with other methods of service increases the likelihood that it will satisfy due process requirements).

²⁷⁴ See *infra* notes 275–281 and accompanying text.

²⁷⁵ Compare *Rio Props.*, 284 F.3d at 1018 (noting that the defendant had a business e-mail address that was its primary contact method), with *Contact*, APPLE, <http://www.apple.com/contact/> (last visited Oct. 29, 2012) (indicating that their customer service numbers are toll-free rather than cell phones). Companies typically use toll-free numbers and landlines for customer service interactions. See, e.g., *Contact*, *supra*; *Technical Support for HP Products*, HP.COM, <http://www8.hp.com/us/en/contact-hp/phone-assist.html> (last visited Oct. 29, 2012).

²⁷⁶ See *Mullane*, 339 U.S. at 314.

²⁷⁷ See *Local Number Portability*, *supra* note 207.

²⁷⁸ See *supra* notes 156–167 and accompanying text; cf. S.C. CODE ANN. § 26-9-190 (2007) (permitting service of process by e-mail where an entity has registered an e-mail address with the Secretary of State); Colby, *supra* note 156, at 7–9 (discussing the legislative developments for electronic service of process, specifically e-mail, in South Carolina under the Uniform Electronic Transactions Act).

²⁷⁹ Cf. S.C. CODE ANN. § 26-9-190 (allowing service of process by e-mail on an entity that has registered an e-mail address with the Secretary of State); Colby, *supra* note 156, at 7–8 (discussing the requirements for serving a business by e-mail under section 26-6-190).

text message.²⁸⁰ In essence, by registering a cell phone number with the Secretary of State, the entity meets two requirements for permitting service of process by text message—the entity's use of a cell phone for communications and a link between the cell phone number and the entity.²⁸¹

Thus, should courts permit text message service of process after technological advancements make it feasible, such service should have three stringent restrictions.²⁸² First, service by text message should require a court order.²⁸³ Second, it should be subjected to the same analysis as serving a foreign defendant by e-mail.²⁸⁴ This analysis requires inquiry into the other methods of service the plaintiff has attempted, how often the defendant uses a cell phone, and how elusive the defendant has been.²⁸⁵ Third, service of process through text message should only be used for natural persons; corporations should not be served by text message.²⁸⁶

CONCLUSION

With technology quickly advancing, courts have begun to incorporate contemporary technology into their procedures. As individuals become more transient and their ability to elude service of process becomes easier, courts will need to open themselves to electronic methods of service of process. Given that over eighty percent of adults in the United States own a cell phone, courts should actively seek to utilize the technology that cell phones offer. Text messages offer the ability to serve process on individuals efficiently and cost-effectively. They also provide a way to serve individuals who are difficult to locate and do not have access to the Internet. Despite these advantages, text messages contain substantial limitations that caution against their use as the technology currently stands. These limitations include their informality, lack of receipt confirmation, and the inability to attach documents.

Once the technology advances to minimize these limitations, however, courts should grant plaintiffs the ability to serve process via text

²⁸⁰ Cf. Colby, *supra* note 156, at 9 (arguing that the South Carolina provisions amount to corporations consenting to be served by e-mail should they do business in the State of South Carolina).

²⁸¹ See *supra* notes 264–270 and accompanying text.

²⁸² See *supra* notes 255–281 and accompanying text.

²⁸³ See *supra* notes 256, 260–263 and accompanying text.

²⁸⁴ See *supra* notes 255–259 and accompanying text.

²⁸⁵ See *supra* notes 255–273 and accompanying text.

²⁸⁶ See *supra* notes 274–281 and accompanying text.

message under certain circumstances. In determining whether to permit text message service of process, courts should apply the same analysis as is used for e-mail service of foreign defendants: (1) whether other traditional methods of service of process have been utilized; (2) whether text messages are frequently used by the defendant, including proving that the cell phone number belongs to the defendant; and (3) whether the defendant has evaded service of process. Even when courts grant text message service of process, this approach should be combined with other methods of service to ensure that notice is reasonably calculated.

Ultimately, given the pervasiveness of cell phone and text message use, text message service of process offers a unique opportunity to minimize the costs associated with the “gold standard” of personal service and simultaneously ensure actual notice. When the limitations of text message technology have been eliminated and certain circumstances are met, courts should permit a “you’ve been served” text message.

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