

THE FEDERAL CIRCUIT'S EFFORTS TO SAVE INTERACTIVE TECHNOLOGY PATENTS

*Ping-Hsun Chen**

ABSTRACT

Under the “single entity” rule, a patented method is infringed only if one entity performs all the steps of the patented method, or controls, or directs others to perform them. Therefore, if an accused system is not operated by a single entity, but by more than two independent entities, interactive technology patents cannot be directly infringed or infringed under the inducement law. Before *Akamai Technologies, Inc. v. Limelight Networks, Inc. (Akamai VI)*,¹ an interactive technology patent was infringed by multiple actors only if one actor controlled or directed the other actors to perform the claimed steps collectively. But, under *Akamai VI*, “liability under [35 U.S.C.A.] § 271(a) can also be found when an alleged infringer conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.”² *Akamai VI* saves interactive technology patents to the extent that an infringer cannot avoid direct infringement by simply setting one or more steps for others to perform.

Keywords: Divided infringement, joint infringement, inducement, single entity, and patent.

* Assistant Professor, Graduate Institute of Technology, Innovation and Intellectual Property Management, National Chengchi University. Email: cstr@nccu.edu.tw. Acknowledgment: The author would like to thank the Ministry of Science and Technology (previously known as National Science Council), Taiwan for its financial support to this research (Project title: New Development of Induced Infringement under the American Patent Law, NSC 101-2410-H-027-001).

¹ 797 F.3d 1020 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

² *Akamai VI*, 797 F.3d at 1023 (alteration in original); 35 U.S.C.A. § 271(a) (West, Westlaw through P.L. 111–48 approved 3/23/2010).

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I. INTRODUCTION

To establish direct infringement under 35 U.S.C.A. § 271(a), a patentee has to prove “by preponderant evidence that the defendant performs (if a method claim) or uses (if a product claim) each element of a claim, either literally or under the doctrine of equivalents.”³ Specifically, “[f]or process patent or method patent claims, infringement occurs when a party performs all of the steps of the process.”⁴ This rule is known as the “single entity” rule.⁵

³ *Cheese Sys. v. Tetra Pak Cheese & Powder Sys.*, 725 F.3d 1341, 1348 (Fed. Cir. 2013); 35 U.S.C.A. § 271(a).

⁴ *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379 (Fed. Cir. 2007) (alteration in original).

⁵ See, e.g., W. Keith Robinson, *No “Direction” Home: An Alternative Approach to Joint Infringement*, 62 AM. U. L. REV. 59, 84 (2012) (explaining that direct infringement under 35 U.S.C.A. § 271(a) requires “showing that a single party practiced each and every element of the claimed invention,” thus becoming known as the “single entity” rule); Erin M.B. Leach, Comment, *Joint Patent Misappropriation: An Appropriate Solution to Joint Patent Infringement*, 82 U. CHI. L. REV. 1023, 1026 (2015) (demonstrating that the Federal Circuit

There was a notion “that a party cannot be liable for direct infringement because the party did not perform all the steps. . . .”⁶ But, the Federal Circuit in *Muniauction, Inc. v. Thomson Corp.* (*Muniauction*)⁷ has clarified that “a method claim [may be] directly infringed by the combined actions of multiple parties.”⁸ *Muniauction* provided that “where the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party, i.e., the ‘mastermind.’”⁹ Under *Muniauction*, “the control or direction [test] is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method.”¹⁰

The “control or direction” test was intended to compromise a “well-settled rule that a ‘defendant cannot thus avoid liability for direct infringement by having someone else carry out one or more of the claimed steps on its behalf.’”¹¹ But, *Muniauction* cautioned that “mere ‘arms-length cooperation’ will not give rise to direct infringement by any party.”¹²

One of the disputed claims in *Muniauction* was “an electronic auctioning process for auctioning fixed income financial instruments. . . .” that was comprised of several steps allowing a bidder to input a price for purposes of submitting a bid through an electronic network of computers.¹³ The claimed process was operated by a bidder and an electronic auctioning device together.¹⁴ On the other hand, the defendant’s software allowed a user to submit his bid to the system through the Internet.¹⁵

acknowledged the “single entity” rule); Michael Liu Su, *A Rock and A Hard Place: Choosing Between § 271(a) and (b) for Divided Infringement in Akamai*, 28 BERKELEY TECH. L.J. 609, 620 (2013) (explaining what led to the “single entity” rule).

⁶ *BMC Resources, Inc.*, 498 F.3d at 1380.

⁷ 532 F.3d 1318 (Fed. Cir. 2008).

⁸ *Id.* at 1329 (alteration in original).

⁹ *Id.*

¹⁰ *Id.* at 1330 (alteration in original).

¹¹ *Id.* at 1329 (citing *BMC Resources, Inc.*, 498 F.3d at 1379).

¹² *Id.* (citing *BMC Resources, Inc.*, 498 F.3d at 1381).

¹³ *Muniauction*, 532 F.3d at 1322–23.

¹⁴ *See id.* at 1322–23 (stating that “Parity(R) allowed bidders using a modem to access bid calculation software on a central server over a proprietary computer network and input data. . . .”).

¹⁵ *See id.* at 1323 (“Thomson modified BidComp/Parity(R) to allow issuers to view bids over the Internet using a web browser rather than over a proprietary

Although the defendant “control[led] access to its system and instruct[ed] bidders on its use,”¹⁶ the Federal Circuit found that the accused process did not infringe the disputed claim.¹⁷

The *Muniauction* approach made it hard to prove the infringement of a process claim if the accused process was performed by multiple actors.¹⁸ Particularly, for interactive technology involving multiple participants, *Muniauction* made it easier to get around a process claim by simply allocating some step for a separate user to execute.¹⁹

Interactive technology is considered the technology that requires customers to get involved.²⁰ Take Content Delivery Network (CDN) technology as an example.²¹ A web page can show several types of content including text and several embedded objects (e.g., images, videos, and sounds).²² But, a web page file cannot include all types of content in their entirety.²³ Rather, a web page file is written in a standard page description language known as Hypertext Markup Language (HTML) and is composed of texts and Uniform Resource Locators (URLs) for different embedded objects.²⁴ An embedded object is associated with a URL, which shows where such embedded object is stored under a certain domain name and path.²⁵ A URL may stand for a server location.²⁶

computer network.”)

¹⁶ *Id.* at 1330 (alteration in original).

¹⁷ *Id.*

¹⁸ Jingyuan Luo, *Shining the Limelight on Divided Infringement: Emerging Technologies and the Liability Loophole*, 30 BERKELEY TECH. L.J. 675, 675–76 (2015).

¹⁹ *Id.* at 696, 700.

²⁰ See Rajan Varadarajan et al., *Interactive Technologies and Retailing Strategy: A Review, Conceptual Framework and Future Research Directions*, 24 J. OF INTERACTIVE MARKETING 96, 97 (2010) (discussing the enabling qualities of interactive technology on retail exchanges, communications, and relationships).

²¹ See *Akamai Technologies, Inc. v. Limelight Networks, Inc. (Akamai II)*, 629 F.3d 1311, 1315 (Fed. Cir. 2010) (stating that “CDNs are systems of computers strategically placed at various geographical locations to maximize the efficient delivery of information over the Internet to users accessing the network.”), *vacated*, 419 F. App’x 989, 989 (Fed. Cir. 2011), *aff’d*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev’d*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

²² *Akamai II*, 629 F.3d at 1314–15 (clarifying that “[t]hese objects are referred to in the patents as ‘embedded objects.’”).

²³ See *id.* at 1314 (stating that “[m]ost of these objects are not incorporated into the web page in their entirety. . .”).

²⁴ *Id.*

²⁵ *Id.* at 1314–15.

²⁶ See Christopher S. Yoo, *Network Neutrality and the Economics of*

When a web page is read, an embedded object can be located through its URL and delivered to a user's computer.²⁷ For purposes of efficiently delivering web page contents to a user's computer, the CDN technology implements an idea that different embedded objects may be delivered through different URLs other than the domain name of the web page.²⁸ So, when a user browses the web page, the desired objects will be delivered from nearby servers associated with those assigned URLs.²⁹

Applying the CDN technology, a content delivery service company may allow its customer, usually a content provider, to assign specific URLs (or Internet servers) for delivering content objects.³⁰ That is, the service company does not control or direct its customer's choice of URLs. Assume that there is a method patent on the technology used by the service company. Then, the steps of the method patent will be performed by the service company and its customers collectively.³¹ Under the *Muniauction* approach, the service company cannot be held liable for direct infringement.³²

To fix that loophole, the Federal Circuit in *Akamai Technologies, Inc. v. Limelight Networks, Inc. (Akamai III)*³³ introduced a cause

Congestion, 94 GEO. L.J. 1847, 1881–82 (2006) (explaining that content delivery networks utilize server locations by redirecting requests for content, “dynamically stor[ing] content and applications at multiple locations throughout the Internet.”).

²⁷ See *Akamai II*, 629 F.3d at 1315 (describing the process of “resolving,” which allows the request of a web page to be delivered and displayed on the user's computer).

²⁸ See *id.* at 1315–16 (“CDNs are systems of computers strategically placed at various geographical locations. . . . Instead of maintaining identical copies of the entire web site content at a single location or at multiple locations . . . only embedded objects are replicated on and served from a CDN.”).

²⁹ See Yoo, *supra* note 26 (“[T]he content delivery network may redirect the request to a particular cache that is more closely located or less congested.”).

³⁰ See John Lorenzen, Case Note and Comment, *Avoiding the Issue: Limelight Networks, Inc. v. Akamai Techs., Inc.*, 25 DEPAUL J. ART, TECH. & INTELL. PROP. L. 183, 193 (2014) (asserting that Akamai's patent enabled content providers have complete control over its content by “delegating the storage and delivery of selected ‘tagged’ objects on the page to third party servers.”).

³¹ See *id.* at 187 (noting that a service company did not perform all the steps itself, but that its customers or financial institutions performed the remaining steps).

³² See Brian Ferrall & Rebekah Punak, *The Complicated Relationship Between Multiple Party Patent Infringement Liability and Common Law Principles*, 13 SEDONA CONF. J. 63, 68–69 (2012) (noting that multiple “parties independently performing all the steps of a method claim would not be sufficient for direct infringement.”).

³³ 692 F.3d 1301 (Fed. Cir. 2012) (en banc; per curiam), *cert. granted*, 134 S. Ct. 895, 895 (2014), *rev'd*, 134 S. Ct. 2111, 2115 (2014), *vacated*, 571 F. App'x 958, 958 (Fed. Cir. 2014) (per curiam), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*,

of action based on inducement under 35 U.S.C.A. § 271(b).³⁴ When “a defendant participates in infringement but does not directly infringe the patent,”³⁵ the remedies for the patentee are “under principles of indirect infringement.”³⁶ One category of indirect infringement is inducement.³⁷ 35 U.S.C.A. § 271(b) provides that “[w]hoever actively induces infringement of a patent shall be liable as an infringer.”³⁸ The Federal Circuit in *BMC Resources, Inc. v. Paymentech, L.P. (BMC Resources, Inc.)*³⁹ held that “inducement of infringement requires a predicate finding of direct infringement.”⁴⁰ *BMC Resources, Inc.* was characterized as a decision holding “that in order for a party to be liable for induced infringement, some other single entity must be liable for direct infringement.”⁴¹ But, *Akamai III* overruled the *BMC Resources, Inc.* approach to inducement and separated the law of direct infringement from the “direct infringement” element of inducement.⁴² Under *Akamai III*, a person may be liable for inducement if he induces more than one person to perform a patented method.⁴³

Akamai III was a consolidated appeal arising from *Akamai Technologies, Inc. v. Limelight Networks, Inc. (Akamai I)*⁴⁴ and

797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

³⁴ *Akamai III*, 692 F.3d at 1305.

³⁵ *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007).

³⁶ *Id.*

³⁷ See Dmitry Karshedt, *Damages for Indirect Patent Infringement*, 91 WASH. U. L. REV. 911, 923 (2014) (noting that actively inducing infringement results in liability as the infringer).

³⁸ 35 U.S.C.A. § 271(b) (West, Westlaw through P.L. 111–48 approved 3/23/2010) (alteration in original).

³⁹ 498 F.3d 1373 (Fed. Cir. 2007).

⁴⁰ *Id.* at 1380.

⁴¹ *Akamai III*, 692 F.3d 1301, 1306 (Fed. Cir. 2012) (en banc; per curiam) (citing *BMC Resources, Inc.*, 498 F.3d at 1379), *cert. granted*, 134 S. Ct. 895, 895 (2014), *rev'd*, 134 S. Ct. 2111, 2115 (2014), *vacated*, 571 F. App'x 958, 958 (Fed. Cir. 2014) (per curiam), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

⁴² *Akamai III*, 692 F.3d at 1306; Peter J. Corcoran, III, *Strategies to Save Resources and Reduce E-Discovery Costs in Patent Litigation*, 21 TEX. INTELL. PROP. L.J. 103, 131 (2013).

⁴³ *Akamai III*, 692 F.3d at 1306; Corcoran, III, *supra* note 42 (a party may be liable for induced infringement even if it does not directly perform any steps of a method claim).

⁴⁴ 614 F. Supp. 2d 90 (D. Mass. 2009), *aff'd*, 629 F.3d 1311, 1314 (Fed. Cir.

McKesson Info. Solutions LLC v. Epic Systems Corp. (McKesson D),⁴⁵ two district court decisions that could not find direct infringement.⁴⁶ In *Akamai I*, the patentee (Akamai Technologies, Inc.) sued the defendant (Limelight Networks, Inc.) for patent infringement.⁴⁷ However, the district court affirmed the jury's finding of no infringement because no single entity performed all claimed steps.⁴⁸ In *McKesson I*, the patentee (McKesson Information Solutions LLC) sued the defendant (Epic Systems Corporation) for the infringement of its method patent.⁴⁹ However, the district court found no induced infringement because no single entity performed the claimed method.⁵⁰

The *Akamai III* approach was then rejected by the Supreme Court.⁵¹ In 2014, the Supreme Court in *Limelight Networks, Inc. v. Akamai Technologies, Inc. (Akamai IV)*,⁵² confirmed that a person liable for induced infringement of a method claim must

2010), *vacated*, 419 F. App'x 989, 989 (Fed. Cir. 2011), *aff'd*, 786 F.3d at 915, *rev'd*, 797 F.3d at 1022, *aff'd in part, rev'd in part*, 805 F.3d at 1372, *cert. denied*, 136 S. Ct. at 1661.

⁴⁵ No. 1:06-CV-2965-JTC., 2009 WL 2915778 (N.D. Ga. Sept. 8, 2009), *aff'd*, No. 2010-1291, 2011 U.S. App. LEXIS 7531 at *1 (Fed. Cir. Apr. 12, 2011), *vacated*, 463 F. App'x 906, 906-07 (Fed. Cir. 2011) (en banc; per curiam), *rev'd*, *Akamai III*, 692 F.3d at 1319.

⁴⁶ *See Akamai III*, 692 F.3d at 1306-07 ("In the respective district court cases, Limelight and Epic were held not to infringe the patents asserted against them," and since both cases were so similar, they were consolidated); Mark Tomlinson, *Whodunnit? Divided Patent Infringement in Light of Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 7 J. BUS. ENTREPRENEURSHIP & L. 130, 135-36 (2013) (in *Akamai III*, the agreements between Limelight and Limelight's customers . . . were an example of arms-length dealings specifically exempted in *BMC*, and in *McKesson*, the district court found no infringement because Epic exercised no direct control over the users' conduct).

⁴⁷ *Akamai I*, 614 F. Supp. 2d at 100.

⁴⁸ *See id.* at 122-23 (discussing how Limelight did not exercise the requisite direction or control over its customers to be held liable for infringement).

⁴⁹ *McKesson I*, No. 1:06-CV-2965-JTC., WL 2915778 at *1.

⁵⁰ *See id.* at *6 (explaining how McKesson could not demonstrate that any single party directly infringed the patent).

⁵¹ *Akamai IV*, 134 S. Ct. 2111, 2115, *vacated*, 571 F. App'x 958, 958 (Fed. Cir. 2014) (per curiam), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016); Jennifer Seraphine & Heather Potts, *Update on the U.S. Supreme Court's Akamai Decision: Induced Patent Infringement Must be Predicated on Direct Infringement by a Single Actor*, 61-AUG FED. LAW. 77, 77 (2014).

⁵² 134 S. Ct. 2111 (2014), *vacated*, 571 F. App'x at 958, *aff'd*, 786 F.3d at 915, *rev'd*, 797 F.3d at 1022, *aff'd in part, rev'd in part*, 805 F.3d at 1372, *cert. denied*, 136 S. Ct. at 1661.

induce only one single entity to perform all claimed steps.⁵³ *Akamai IV* caused interactive technology patents to more likely become unenforceable under the law of either direct infringement or indirect infringement again.⁵⁴ However, the Supreme Court invited the Federal Circuit to revisit the “single entity” rule and implied that the loophole might be solved in another manner.⁵⁵

In 2015, the Federal Circuit in *Akamai VI*⁵⁶ issued an en banc decision to react to the Supreme Court and expanded the traditional “control” or “direction” test.⁵⁷ *Akamai VI* revisited the “single entity” rule and decided to modify it.⁵⁸ *Akamai VI* added a new evidentiary rule to the “control” or “direction” test and also adopted and merged the law of “joint enterprise” into the “single entity” rule.⁵⁹ Now, an interactive technology patent may be infringed under 35 U.S.C.A. § 271(a), even when the accused infringer requires some steps of the patent to be performed by its users or customers.⁶⁰

This article is intended to explore the transformation of the “single entity” rule under 35 U.S.C.A. § 271(a). First, the background of the Federal Circuit’s *Akamai III* decision is examined in order to highlight the loophole in 35 U.S.C.A. § 271(a). Second, the Federal Circuit’s new “single entity” rule under *Akamai VI* is analyzed. Lastly, the paper discusses why *Akamai VI* is important to the protection of interactive technology patents.

II. INDUCEMENT-BASED SOLUTION UNDER *AKAMAI III*

A. *Factual Background*

1. *Akamai I*

In *Akamai I*,⁶¹ the patent-in-suit, United States Patent No.

⁵³ *Akamai IV*, 134 S. Ct. at 2119; Daniel Ilan & Jane Rosen, *Supreme Court Curbs Patentability of Computerized Business Methods*, 26 NO. 9 INTELL. PROP. & TECH. L.J. 8, 11 (2014).

⁵⁴ Lorenzen, *supra* note 30, at 206.

⁵⁵ *Akamai IV*, 134 S. Ct. at 2120.

⁵⁶ *Akamai VI*, 797 F.3d at 1020.

⁵⁷ *Id.* at 1023; Olajumoke Obayanju, *What Next? Exploring the Federal Circuit’s Expansion of Direct Infringement Liability Post-Akamai v. Limelight and the Process it Took to Get There*, 25 FED. CIR. B.J. 319, 320, 332 (2016).

⁵⁸ *Akamai VI*, 797 F.3d at 1023; Obayanju, *supra* note 57, at 334.

⁵⁹ *Akamai VI*, 797 F.3d at 1022–23; Obayanju, *supra* note 57, at 332–33.

⁶⁰ *Akamai VI*, 797 F.3d at 1022–23; Obayanju, *supra* note 57, at 332–33.

⁶¹ *Akamai I*, 614 F. Supp. 2d 90 (D. Mass. 2009), *aff’d*, 629 F.3d 1311, 1314 (Fed. Cir. 2010), *vacated*, 419 F. App’x 989, 989 (Fed. Cir. 2011), *aff’d*, 786 F.3d

6,108,703 (the 703 Patent), related to delivering a web page by using a method “for replicating page objects among a distributed set of content delivery service provider servers and redirecting end user requests for those objects to a particular content server.”⁶² The disputed claim comprised several steps.⁶³ Specifically, the claim included a step of retrieving the objects of a web page from a domain, other than the domain of the web page service provider.⁶⁴ Both the defendant (Limelight Networks, Inc.) and Akamai Technologies, Inc. were web page service providers and served content providers.⁶⁵ Both parties’ CDN services offered different servers in different locations for content providers to choose to store objects.⁶⁶ Content providers used the defendant’s service to transmit web pages to readers, but they could control the delivery server of the objects without the defendant’s interference.⁶⁷ Therefore, one step of the patented method which requires “tagging at least some of the embedded objects of the page. . . .” was not performed by the defendant because it was performed by the defendant’s clients.⁶⁸

The defendant provided instruction to its clients, and the instruction taught the clients how to edit their web page files in order to utilize the defendant’s CDN technology.⁶⁹ Although the contracts between the defendant and its clients provided that the

899, 915 (Fed. Cir. 2015), *rev’d*, 797 F.3d at 1022, *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

⁶² *Akamai I*, 614 F. Supp. 2d at 97 & n.3.

⁶³ Claim 34 of the 703 Patent comprises “[1] distributing a set of page objects across a network of content servers managed by a domain other than a content provider domain, wherein the network of content servers are organized into a set of regions; [2] for a given page normally served from the content provider domain, *tagging at least some of the embedded objects of the page so that requests for the objects resolve to the domain instead of the content provider domain*; in response to a client request for an embedded object of the page: [3] resolving the client request as a function of a location of the client machine making the request and current Internet traffic conditions to identify a given region; and [4] returning to the client an IP address of a given one of the content servers within the given region that is likely to host the embedded object and that is not overloaded.” *Akamai II*, 629 F.3d at 1314, 1316–17 (alteration in original) (emphasis added) (emphasis omitted from original), *vacated*, 419 F. App’x at 989, *aff’d*, 786 F.3d at 915, *rev’d*, 797 F.3d at 1022, *aff’d in part, rev’d in part*, 805 F.3d at 1372, *cert. denied*, 136 S. Ct. at 1661.

⁶⁴ *Akamai II*, 629 F.3d at 1316–17.

⁶⁵ *Akamai I*, 614 F. Supp. 2d at 96.

⁶⁶ *Id.*

⁶⁷ *Id.* at 116–17.

⁶⁸ *Id.* at 116–17, 117 n.24.

⁶⁹ *Id.* at 116–17.

clients would implement the defendant's service, which the defendant would exchange for payment, the district court held that the contractual relationship was merely an "arms-length contract negotiation" because the payment clause was only a form of financial remuneration.⁷⁰ Therefore, no evidence proved the requisite "control" or "direction" needed to have been exercised by the defendant over its customers for liability to result.⁷¹ The defendant was not liable for direct infringement.⁷²

2. McKesson I

In *McKesson I*,⁷³ the patent-in-suit, U.S. Patent No. 6,757,898 (the 898 Patent), related to "[a] method of automatically and electronically communicating between at least one health-care provider and a plurality of users serviced by the health-care provider. . . ."⁷⁴ The disputed claim recited several steps, which enabled a patient to get access to certain content stored on the health-care provider's side.⁷⁵ The disputed claim included a

⁷⁰ *Id.* at 121–22.

⁷¹ See *Akamai I*, 614 F. Supp. 2d at 122 (using the standard established by *Muniauction* to determine insufficient evidence to show direction or control).

⁷² See *id.* at 122–23 (explaining that a lack of evidence of direction or control will preclude a finding of liability for direct infringement).

⁷³ *McKesson I*, No. 1:06–CV–2965–JTC., 2009 WL 2915778 (N.D. Ga. Sept. 8, 2009), *aff'd*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *1 (Fed. Cir. Apr. 12, 2011), *vacated*, 463 F. App'x 906, 906–07 (Fed. Cir. 2011) (en banc; per curiam), *rev'd*, *Akamai III*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (en banc; per curiam).

⁷⁴ *Id.* at *1 (alteration in original).

⁷⁵ *Id.* at *1–2 (noting that Claim 1 of the 898 Patent comprises "[1] *initiating* a communication by one of the plurality of users to the provider for information, wherein the provider has established a preexisting medical record for each user; [2] *enabling* communication by transporting the communication through a provider/patient interface over an electronic communication network to a Web site which is unique to the provider, whereupon the communication is automatically reformatted and processed or stored on a central server, said Web site supported by or in communication with the central server through a provider-patient interface service center; [3] electronically *comparing* content of the communication with mapped content, which has been previously provided by the provider to the central server, to formulate a response as a static or dynamic object, or a combined static and dynamic object; and [4] *returning* the response to the communication automatically to the user's computer, whereupon the response is read by the user or stored on the user's computer, said provider/patient interface providing a fully automated mechanism for generating a personalized page or area within the provider's Web site for each user serviced by the provider; and said patient-provider interface service center for dynamically assembling and delivering custom content to said user.") (emphasis added); see also Kevin Ilsen & Michael J. Cataldo, U.S. PATENT NO. 6,757,898 (June 29, 2004)(reiterating the disputed claim method's steps).

communication-initiating step as the first step through which a patient began to communicate with her health-care provider.⁷⁶ The accused infringer, Epic Systems Corporation, did not perform the patented method itself, but instead created and sold a software system named “MyChart” to several health-care providers, which was alleged to infringe the patent.⁷⁷

MyChart was used by health-care providers (e.g., hospitals, medical groups, and pediatric facilities) under a licensing contract.⁷⁸ MyChart was operated by a patient and a health-care provider.⁷⁹ The health-care provider performed almost all of the steps except for the communication-initiating step.⁸⁰ The patient could use MyChart to get access to her “medical records, treatment information, and scheduling information.”⁸¹ However, no health-care provider required her patients to use MyChart.⁸² Patients were free to choose whether to sign up for MyChart or not.⁸³

In *McKesson I*, no evidence showed that the patient was obligated to use MyChart to communicate with her health-care provider.⁸⁴ While the health-care provider controlled the patient’s access to MyChart, that did not amount to “control” or “direction.” Thus, no direct infringement was found, and the defendant was not liable for inducement.⁸⁵

3. Appeals to the Federal Circuit

The plaintiffs in *Akamai I* and *McKesson I* appealed.⁸⁶ The

⁷⁶ See *McKesson I*, No. 1:06–CV–2965–JTC., 2009 WL 2915778 at *1 (clarifying the initial step taken in this system).

⁷⁷ *Id.* at *1.

⁷⁸ *Id.* at *2.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *McKesson I*, No. 1:06–CV–2965–JTC., 2009 WL 2915778 at *2.

⁸³ See *id.* (noting that the choice to use MyChart was up to the patient, and that the patient had to make the initial communication).

⁸⁴ See *id.* at *6 (“Moreover, the parties do not dispute that MyChart users choose whether or not to initiate a communication with the provider and the user is not under any obligation to initiate a communication.”).

⁸⁵ *Id.* at *6–7.

⁸⁶ *Akamai II*, 629 F.3d 1311, 1314 (Fed. Cir. 2010), *vacated*, 419 F. App’x 989, 989 (Fed. Cir. 2011), *aff’d*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev’d*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016); *McKesson II*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *1 (Fed. Cir. Apr. 12, 2011), *vacated*, 463 F. App’x 906, 906–07 (Fed. Cir. 2011) (en banc; per curiam), *rev’d, Akamai III*, 692 F.3d 1301, 1306 (Fed. Cir. 2012) (en banc; per curiam).

Federal Circuit initially affirmed those two district court decisions.⁸⁷ Two decisions, *Akamai II* and *McKesson Technologies Inc. v. Epic Systems Corp. (McKesson II)*,⁸⁸ were issued on December 20, 2010 and April 12, 2011, respectively.⁸⁹ However, the Federal Circuit seemed to see a chance to revisit the case law governing joint infringement. On April 20, 2011 and May 26, 2011, the Federal Circuit vacated *Akamai II* and *McKesson II*, respectively.⁹⁰ The Federal Circuit asked the parties to answer, “[i]f separate entities each perform separate steps of a method claim, under what circumstances would that claim be directly infringed and to what extent would each of the parties be liable?”⁹¹ On August 31, 2012, the Federal Circuit issued *Akamai III*, an en banc decision, to reverse *McKesson I* and *Akamai I* and remand both cases for further proceedings on inducement.⁹²

B. Inducement as a Solution

To establish liability under 35 U.S.C.A. § 271(b), a patentee has to prove three elements: (1) the existence of direct infringement; (2) an affirmative act to induce the direct infringement; and (3) a specific intent by knowing the existence of both the patent in suit and the direct infringement.⁹³ *Akamai III* reaffirmed the traditional view that “[w]hen a single actor induces another actor to commit all the elements of infringement, the first actor is liable for induced infringement under 35 U.S.C.[A.] § 271(b).”⁹⁴ But, *Akamai III* added a new category to inducement involving a situation where “the acts necessary to give rise to liability for

⁸⁷ *Akamai II*, 629 F.3d at 1314; *McKesson II*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *2.

⁸⁸ No. 2010–1291, 2011 U.S. App. LEXIS 7531 (Fed. Cir. Apr. 12, 2011), vacated, 463 F. App’x at 906–07, rev’d, *Akamai III*, 692 F.3d at 1306.

⁸⁹ *Akamai II*, 629 F.3d at 1311; *McKesson II*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *1.

⁹⁰ *Akamai II-1*, 419 F. App’x at 989; *McKesson II-1*, 463 F. App’x at 907.

⁹¹ *Akamai II-1*, 419 F. App’x at 989 (alteration in original).

⁹² *Akamai III*, 692 F.3d 1301, 1301, 1318–19 (Fed. Cir. 2012) (en banc; per curiam), cert. granted, 134 S. Ct. 895, 895 (2014), rev’d, 134 S. Ct. 2111, 2115 (2014), vacated, 571 F. App’x 958, 958 (Fed. Cir. 2014) (per curiam), aff’d, 786 F.3d 899, 915 (Fed. Cir. 2015), rev’d, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), aff’d in part, rev’d in part, 805 F.3d 1368, 1372 (Fed. Cir. 2015), cert. denied, 136 S. Ct. 1661, 1661 (2016).

⁹³ Karshedt, *supra* note 37, at 926–27; see also *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 766 (2011) (“[W]e now hold that induced infringement under [35 U.S.C.A.] § 271(b) requires knowledge that the induced acts constitute patent infringement.”).

⁹⁴ *Akamai III*, 692 F.3d at 1305 (alteration in original).

direct infringement are shared between two or more actors. . . .”⁹⁵ The new category covered the accused acts in *Akamai I* and *McKesson I*.⁹⁶

In *Akamai I*, the defendant “ha[d] performed some of the steps of a claimed method and ha[d] induced other parties to commit the remaining steps. . . .”⁹⁷ In *McKesson I*, the defendant “ha[d] induced other parties to collectively perform all the steps of the claimed method, but no single party ha[d] performed all of the steps itself. . . .”⁹⁸ *Akamai III* criticized the idea that these two cases could not be covered by the traditional view of 35 U.S.C.A. § 271(b), “even though [in each case] the patentee’s rights [were] plainly being violated by the actors’ joint conduct.”⁹⁹ *Akamai III* associated this problem specifically with method patents because of “the natural way that a particular method [like the patented methods in *Akamai I* and *McKesson I*] will be practiced. . . .”¹⁰⁰

To find the defendants in *Akamai I* and *McKesson I* liable for patent infringement, *Akamai III* introduced an inducement-based solution by holding “that all the steps of a claimed method must be performed in order to find induced infringement, but that it is not necessary to prove that all the steps were committed by a single entity.”¹⁰¹ *Akamai III* also abrogated a proposition arising from *BMC Resources, Inc.* that “in order for a party to be liable for induced infringement, some other single entity must be liable for direct infringement.”¹⁰² Therefore, *Akamai III* separated the “direct infringement” element of 35 U.S.C.A. § 271(b) from direct infringement under 35 U.S.C.A. § 271(a).¹⁰³

The *Akamai III* approach to joint or divided infringement avoided a dramatic change of the “single entity” rule under 35 U.S.C.A. § 271(a).¹⁰⁴ As *Akamai III* reaffirmed, direct infringement under 35 U.S.C.A. § 271(a) is a strict liability tort,¹⁰⁵ meaning that

⁹⁵ *Id.*

⁹⁶ *See id.* at 1305–06 (noting that all the steps of induced infringement do not need to be committed by a single entity).

⁹⁷ *Id.* at 1305 (alteration in original).

⁹⁸ *Id.* (alteration in original).

⁹⁹ *Id.* at 1306 (alteration in original).

¹⁰⁰ *Akamai III*, 692 F.3d at 1306 (alteration in original).

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.* at 1305; 35 U.S.C.A. § 271(a) (West’s current through P.L. 111–48) (demonstrating that subsection (a) refers to direct infringement); 35 U.S.C.A. § 271(b) (demonstrating that subsection (b) refers to induced infringement).

¹⁰⁴ *Akamai III*, 692 F.3d at 1307.

¹⁰⁵ *Id.*

“a defendant’s mental state is irrelevant.”¹⁰⁶ Therefore, *Akamai III* followed the “single entity” rule under *BMC Resources, Inc.* and *Muniauction* and refused to apply direct infringement under 35 U.S.C.A. § 271(a) to “actors who did not themselves commit all the acts necessary to constitute infringement and who had no way of knowing that others were acting in a way that rendered their collective conduct infringing.”¹⁰⁷ On the other hand, as *Akamai III* emphasized, “[35 U.S.C.A. § 271(b)] requires that the accused inducer act with knowledge that the induced acts constitute patent infringement.”¹⁰⁸ *Akamai III* recognized that the impact of knowingly inducing “others to engage in acts that collectively practice the steps of the patented method. . . .” is the same as the impact of knowingly inducing “the same infringement by a single direct infringer. . . .”¹⁰⁹ *Akamai III* further concluded that there is no reason to treat them differently.¹¹⁰ Therefore, *Akamai III* changed the theory of inducement to fix the loophole arising from divided infringement of a method patent.¹¹¹

Akamai III further instructed the district courts to apply the new law.¹¹² With respect to *Akamai I*, *Akamai III* stated that

[the defendant] would be liable for inducing infringement if the patentee could show that (1) [the defendant] knew of [the] patent, (2) it performed all but one of the steps of the method claimed in the patent, (3) *it induced the content providers to perform the final step of the claimed method*, and (4) the content providers in fact performed that final step.¹¹³

With respect to *McKesson I*, *Akamai III* stated that “[the defendant] can be held liable for inducing infringement if it can be shown that (1) it knew of [the] patent, (2) it induced the performance of the steps of the method claimed in the patent, and (3) *those steps were performed*.”¹¹⁴ However, the district courts made no change in applying the *Akamai III* approach.¹¹⁵ The

¹⁰⁶ *Commil USA, LLC v. Cisco Systems, Inc.*, 135 S. Ct. 1920, 1926, *rev’d*, 813 F.3d 994, 997 (Fed. Cir. 2015), *cert. denied*, 2016 WL 3078045 (S. Ct. 2016).

¹⁰⁷ *Akamai III*, 692 F.3d at 1307.

¹⁰⁸ *Id.* at 1308 (alteration in original).

¹⁰⁹ *Id.* at 1309.

¹¹⁰ *Id.*

¹¹¹ *Id.* at 1318.

¹¹² *Id.*

¹¹³ *Akamai III*, 692 F.3d at 1318 (alteration in original) (emphasis added).

¹¹⁴ *Id.* (alteration in original) (emphasis added).

¹¹⁵ *See id.* at 1319 (discussing that the line of cases that the district courts elected to follow were disapproved by the Federal Circuit).

defendants in both cases petitioned to the Supreme Court.¹¹⁶ While dismissing Epic Systems Corporation's petition on March 11, 2013,¹¹⁷ the Supreme Court later granted Limelight Networks, Inc.'s petition on January 10, 2014.¹¹⁸ The *McKesson I* case was then settled.¹¹⁹ On the other hand, *Akamai III* was later reversed by the Supreme Court on June 2, 2014.¹²⁰

C. Post-Akamai III Period

After *Akamai III*, the Federal Circuit, in three decisions, vacated the district court decision and remanded for the reconsideration under *Akamai III*.¹²¹ Several district courts also started to apply the inducement theory under *Akamai III* to decide a motion for

¹¹⁶ *Limelight Networks, Inc. v. Akamai Technologies, Inc.*, 134 S. Ct. 895, 895, *rev'd*, 134 S. Ct. 2111, 2115 (2014), *vacated*, 571 F. App'x 958, 958 (Fed. Cir. 2014) (per curiam), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016); *Epic Systems Corp. v. McKesson Technologies, Inc.*, 133 S. Ct. 1520, 1520 (2013).

¹¹⁷ *Epic Systems Corp.*, 133 S. Ct. at 1520.

¹¹⁸ *Limelight Networks, Inc.*, 134 S. Ct. at 895.

¹¹⁹ *McKesson and Epic Settle Patent Infringement Litigation*, MCKESSON (Mar. 4, 2013), <http://www.mckesson.com/about-mckesson/newsroom/press-releases/2013/mckesson-and-epic-settle-patent-infringement-litigation/>.

¹²⁰ *Akamai IV*, 134 S. Ct. at 2115.

¹²¹ *See, e.g.*, *Travel Sentry, Inc. v. Tropp*, 497 F. App'x 958, 967 (Fed. Cir. 2012) ("We therefore vacate the district court's grant of summary judgment and remand for a determination whether, under the standard set forth in our recent *en banc* opinion in *Akamai*, Travel Sentry is liable for indirect infringement."); *Move, Inc. v. Real Estate Alliance Ltd.*, 709 F.3d 1117, 1123 (Fed. Cir. 2013) ("We therefore vacate the district court's grant of summary judgment and remand for a determination whether Move is liable for indirect infringement under the standard set forth in *Akamai*."); *Aristocrat Technologies Australia Pty Limited v. Int'l Game Tech.*, 709 F.3d 1348, 1363–64 (Fed. Cir. 2013) ("Based on our *en banc* decision in *Akamai*, we must vacate and remand the portion of the order relating to indirect infringement on that basis.").

leave to file an amended complaint,¹²² a motion to dismiss,¹²³ a motion to reconsider,¹²⁴ and a motion for summary judgment.¹²⁵ Yet, no district courts have applied *Akamai III* and really found a method claim infringed under 35 U.S.C.A. § 271(b) by one infringer who induced multiple actors to perform all claimed steps together.¹²⁶

D. Supreme Court's Response

Akamai III was a split decision with two dissenting opinions.¹²⁷

¹²² See, e.g., *Deep9 Corp. v. Barnes & Noble, Inc.*, No. C11-0035JLR, 2012 WL 4336726, at *15 (W.D. Wash. Sept. 21, 2012) (rejecting the plaintiff's request to amend the pleading), *aff'd*, 504 F. App'x 923, 924 (Fed. Cir. May 13, 2013) (per curiam); *Helferich Patent Licensing, LLC v. Legacy Partners, LLC*, 917 F. Supp. 2d 985, 992-93 (D. Ariz. 2013) (denying the plaintiff's motion for leave to amend the complaint to add third party defendants); *Walker Digital, LLC v. Google, Inc.*, CIV. No. 11-309-SLR, 2013 WL 1489003, at *1-2 (D. Del. Apr. 11, 2013) (denying the plaintiff's motion for leave to amend the complaint to add a claim for inducement); *Apple Inc. v. Samsung Electronics Co. Ltd.*, No. 12-CV-0630-LHK (PSG), 2013 WL 3246094, at *15 (N.D. Cal. June 26, 2013) (denying Samsung's motion to amend the complaint to assert the inducement theory under *Akamai III* partially because *Akamai III* was not shown to apply to an apparatus claim); *Prism Technologies, LLC v. McAfee, Inc.*, No. 8:10CV220, 2012 WL 5385210 at *1 (D. Neb. Nov. 1, 2012) (granting the plaintiff's motion for leave to file a second amended complaint).

¹²³ See, e.g., *Driessen v. Sony Music Ent.*, 904 F. Supp. 2d 1196, 1205 (D. Utah 2012) (denying the defendant's motion to dismiss the plaintiff's inducement claim), *vacated in part, modified in part*, No. 2:09-CV-0140-CW, 2013 WL 4501063, at *4 (D. Utah Aug. 22, 2013); *Transunion Intelligence LLC v. Search America Inc.*, No. 11-CV-1075 (PJS/FLN), 2013 WL 656616 at *4 (D. Minn. Feb. 22, 2013) (denying the defendant's motion to dismiss).

¹²⁴ See, e.g., *Civix-DDI, LLC v. Hotels.com, LP*, 904 F. Supp. 2d 864, 865 (N.D. Ill. 2012) (granting the plaintiff's motion for reconsideration of the grant of summary judgment on inducement).

¹²⁵ See, e.g., *ABT Systems, LLC v. Emerson Electric Co.*, No. 4:11CV00374 AGF, 2013 WL 170912 at *8 (E.D. Mo. Jan. 16, 2013) (denying the plaintiff's motion for summary judgment on inducement because whether the defendant knew about the patent-in-suit was disputable), *rev'd in part, vacated in part*, 797 F.3d 1350, 1362 (Fed. Cir. 2015).

¹²⁶ See *Walker Digital, LLC*, No. 11-309-SLR, 2013 WL 1489003 at *1-2 (finding, for example, that *Akamai III* was not applicable to an induced infringement claim).

¹²⁷ *Akamai III*, 692 F.3d 1301, 1319, 1337 (Fed. Cir. 2012) (en banc; per curiam), *cert. granted*, 134 S. Ct. 895, 895 (2014), *rev'd*, 134 S. Ct. 2111, 2115 (2014), *vacated*, 571 F. App'x 958, 958 (Fed. Cir. 2014) (per curiam), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015),

The majority was led by former Chief Judge Randall Rader with five judges.¹²⁸ Judge Linn’s dissenting opinion was supported by three judges,¹²⁹ while Judge Newman offered her own dissent.¹³⁰ Internal conflicts, as found in this case, often trigger the Supreme Court’s review.¹³¹

In 2014, the Supreme Court in *Akamai IV*¹³² reversed and remanded *Akamai III*.¹³³ The Court characterized *Akamai III* as providing that “a defendant can be liable for inducing infringement under [35 U.S.C.A.] § 271(b) even if no one has committed direct infringement within the terms of [35 U.S.C.A.] § 271(a) (or any other provision of the patent laws). . . .”¹³⁴ Then, the Court criticized that *Akamai III* “fundamentally misunderstands what it means to infringe a method patent[,]”¹³⁵ while emphasizing that under its case law, a method “patent is not infringed unless all the steps [claimed by the method patent] are carried out.”¹³⁶

The Court also worried that *Akamai III* would make the application of 35 U.S.C.A. § 271(b) unascertainable.¹³⁷ Because *Akamai III* made a defendant “liable under [35 U.S.C.A.] § 271(b) for inducing conduct that does not constitute infringement . . . ,”¹³⁸ the Court questioned how a court can “assess when a patent

cert. denied, 136 S. Ct. 1661, 1661 (2016); Nathan R. Deleault, Note, *Reviving Monopoly-Type Patent Misuse as a Defense: Protecting Innovation in the Wake of Akamai v. Limelight*, 38 VT. L. REV. 1073, 1083 (2014) (discussing the two dissents and the consequences of the *Akamai III* decision).

¹²⁸ Chief Judge Rader, and Judges Lourie, Bryson, Moore, Reyna, and Wallach composed the majority. *Akamai III*, 692 F.3d at 1305; Gene Quinn, *CAFC Shock: Judge Randall Rader Announces Retirement*, IPWATCHDOG (June 13, 2014), <http://www.ipwatchdog.com/2014/06/13/cafc-shock-judge-randall-rader-announces-retirement/id=50075/>.

¹²⁹ Judges Dyk, Prost, and O’Malley joined in Judge Linn’s dissent. *Akamai III*, 692 F.3d at 1305.

¹³⁰ *Id.*

¹³¹ See Ryan Stephenson, Note, *Federal Circuit Case Selection at the Supreme Court: An Empirical Analysis*, 102 GEO. L.J. 272, 286–87 (2013) (discussing how dissents by the Federal Circuit provide opportunities for Supreme Court review).

¹³² *Akamai IV*, 134 S. Ct. 2111, 2111, *vacated*, 571 F. App’x 958, 958 (Fed. Cir. 2014) (per curiam), *aff’d*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev’d*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

¹³³ *Id.* at 2120.

¹³⁴ *Id.* at 2117 (alteration in original).

¹³⁵ *Id.* (alteration in original).

¹³⁶ *Id.* (alteration in original).

¹³⁷ See *id.* (discussing how altering the rules of inducement liability would make it difficult for lower courts to apply a consistent rule).

¹³⁸ *Akamai IV*, 134 S. Ct. at 2117 (alteration in original).

holder's rights have been invaded[.]”¹³⁹ An example is when “a defendant pays another to perform just one step of a [method claim], and no one performs the other steps . . . [.]”¹⁴⁰ Applying *Akamai III* to that example, the Court concluded that if “that one step can be viewed as the most important step . . . [.]” in the claim,¹⁴¹ even though “the defendant has not encouraged infringement . . . ,”¹⁴² the defendant would be held liable under 35 U.S.C.A. § 271(b).¹⁴³

Although reversing *Akamai III*, the Court ironically suggested a possible solution for the Federal Circuit.¹⁴⁴ The Court held that “on remand, the Federal Circuit will have the opportunity to revisit the [35 U.S.C.A.] § 271(a) question if it so chooses.”¹⁴⁵ To invite the Federal Circuit to review 35 U.S.C.A. § 271(a) under *Muniauction*, the Court specifically limited the *Akamai IV* decision to the issue of 35 U.S.C.A. § 271(b), perhaps in order to avoid any implication that it had affirmed *Muniauction*.¹⁴⁶

III. FEDERAL CIRCUIT'S EXPANSION OF THE “SINGLE ENTITY” RULE

A. Redefining the “Single Entity” Rule

When the case was remanded, the Federal Circuit in *Akamai Technologies, Inc. v. Limelight Networks, Inc. (Akamai V)*¹⁴⁷ initially refused to change the “single entity” rule.¹⁴⁸ However, the Federal Circuit later in *Akamai VI*¹⁴⁹ revisited the “single entity”

¹³⁹ *Id.* (alteration in original).

¹⁴⁰ *Id.* at 2118 (alteration in original).

¹⁴¹ *Id.* (alteration in original).

¹⁴² *Id.*

¹⁴³ *Id.* at 2117–18.

¹⁴⁴ *Akamai IV*, 134 S. Ct. at 2120.

¹⁴⁵ *Id.*

¹⁴⁶ *See id.* (discussing how certiorari was granted in order to determine the case under 35 U.S.C.A. § 271(b), not 35 U.S.C.A. § 271(a)).

¹⁴⁷ 786 F.3d 899 (Fed. Cir. 2015), *rev'd*, 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

¹⁴⁸ *Akamai V*, 786 F.3d at 910 (“Today, just as in 1952, where a single entity does not perform each and every claim limitation, that entity may not be characterized or held liable as a direct infringer.”).

¹⁴⁹ *Akamai VI*, 797 F.3d 1020, 1022 (Fed. Cir.) (en banc; per curiam), *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

rule under 35 U.S.C.A. § 271(a).¹⁵⁰ *Akamai VI* was a unanimous and en banc decision expanding the “single entity” rule.¹⁵¹ The Federal Circuit took the suggestion from *Akamai IV* and responded to a Supreme Court’s suspicious comment on “the possibility that [the Federal Circuit] erred by too narrowly circumscribing the scope of [35 U.S.C.A.] § 271(a). . . .”¹⁵²

Akamai VI started embracing the traditional view of the “single entity” rule for joint infringement.¹⁵³ *Akamai VI* reaffirmed that “[d]irect infringement under [35 U.S.C.A.] § 271(a) occurs where all steps of a claimed method are performed by or attributable to a single entity.”¹⁵⁴ However, in a case “[w]here more than one actor is involved in practicing the steps . . . ,”¹⁵⁵ *Akamai VI* held that “a court must determine whether the acts of one are attributable to the other such that a single entity is responsible for the infringement.”¹⁵⁶ To provide a standard for joint infringement, *Akamai VI* further held that “an entity [is] responsible for others’ performance of method steps in two sets of circumstances: (1) where that entity directs or controls others’ performance, and (2)

¹⁵⁰ *Akamai VI*, 797 F.3d at 1022–23.

¹⁵¹ *Akamai VI*, 797 F.3d at 1022–23; Obayanju, *supra* note 57, at 320 (“The court expanded direct infringement liability by first revisiting the single-entitle [sic] rule and secondly creating the joint enterprise theory.”); Boston Heart Diagnostics Corp. v. Harmonyx Diagnostics, Inc., No. 4:15–CV–378, 2015 WL 11118107, at *4 (E.D. Tex. Sept. 23, 2015) (“Such infringement is no longer limited solely to principal-agent relationships, contractual arrangements, and joint enterprise. . . .” (quoting *Akamai VI*, 797 F.3d at 1023)); Wis. Alumni Res. Found. v. Apple, Inc., No. 14–CV–062–WMC, 2015 WL 6453842, at *4 (W.D. Wis. Oct. 26, 2015) (“While the law on vicarious liability may be unsettled, the Federal Circuit is certainly moving in the direction of a more expansive view of what satisfies control and direction in order to bring a third-party’s actions within the purview of the alleged infringer.” (citing *Akamai VI*, 797 F.3d at 1023)). *But cf.* Travel Sentry, Inc. v. Tropp, No. 06–CV–6415 (ENV) (RLM), 08–CV–4446 (ENV) (RLM), 2016 WL 3640645, at *2 (E.D.N.Y. June 29, 2016) (answering “whether the line of *Akamai* cases—particularly the most recent Federal Circuit decision, *Akamai V[I]*—has expanded the scope of direct infringement” and holding that “it has not. . . .”).

¹⁵² *Akamai VI*, 797 F.3d at 1022 (alteration in original) (quoting *Akamai IV*, 134 S. Ct. 2111, 2119, *vacated*, 571 F. App’x 958, 958 (Fed. Cir. 2014) (per curiam), *aff’d*, 786 F.3d at 915, *rev’d*, 797 F.3d at 1022, *aff’d in part, rev’d in part*, 805 F.3d at 1372, *cert. denied*, 136 S. Ct. at 1661).

¹⁵³ *Akamai VI*, 797 F.3d at 1023; *Travel Sentry, Inc.*, No. 06–CV–6415 (ENV) (RLM), 08–CV–4446 (ENV) (RLM), 2016 WL 3640645 at *3 (“*Akamai V[I]* does not disturb the *BMC Res./Muniauction* test.”).

¹⁵⁴ *Akamai VI*, 797 F.3d at 1022 (alteration in original) (citing *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007)).

¹⁵⁵ *Akamai VI*, 797 F.3d at 1022 (alteration in original).

¹⁵⁶ *Id.*

where the actors form a joint enterprise.”¹⁵⁷ Thus, *Akamai VI* created a new “joint enterprise” test for joint infringement.¹⁵⁸

Akamai VI set two categories of a “single entity” liable for joint infringement.¹⁵⁹ In the first category, only one single entity may be liable for infringement under 35 U.S.C.A. § 271(a), while in the second category, each of the actors who collectively perform all steps of a method claim may be liable for infringement under 35 U.S.C.A. § 271(a).¹⁶⁰ *Akamai VI* also confirmed that whether a person falls within either of these two categories is a question of fact which will be reviewed on appeal for substantial evidence if the facts are tried by the jury.¹⁶¹

The first category is a modified “control or direction” test.¹⁶² *Akamai VI* characterized *BMC Resources, Inc.* as requiring a court to follow “general principles of vicarious liability” in order “[t]o determine if a single entity directs or controls the acts of another[.]”¹⁶³ Following *BMC Resources, Inc.*, *Akamai VI* reaffirmed that “an actor is liable for infringement under [35 U.S.C.A.] § 271(a) if it acts through an agent (applying traditional agency principles) or contracts with another to perform one or more steps of a claimed method.”¹⁶⁴ However, to find the defendant in *Akamai I* liable for joint infringement, *Akamai VI* further added a new evidentiary rule and held that “liability under [35 U.S.C.A.] § 271(a) can also be found when an alleged infringer *conditions* participation in an activity or receipt of a benefit *upon* performance of a step or steps of a patented method and *establishes* the manner or timing of that performance.”¹⁶⁵

The second category arose from within the official comments in the Restatement (Second) of Torts § 491.¹⁶⁶ *Akamai VI* held that “where two or more actors form a joint enterprise, *all* can be

¹⁵⁷ *Id.* (alteration in original).

¹⁵⁸ *Id.* at 1023.

¹⁵⁹ *Id.* at 1022.

¹⁶⁰ *Id.*

¹⁶¹ *Akamai VI*, 797 F.3d at 1023.

¹⁶² *Id.* at 1022–23.

¹⁶³ *Id.* (alteration in original) (citing *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379 (Fed. Cir. 2007)).

¹⁶⁴ *Akamai VI*, 797 F.3d at 1023 (alteration in original) (citing *BMC Resources, Inc.*, 498 F.3d at 1380–81).

¹⁶⁵ *Akamai VI*, 797 F.3d at 1023 (emphasis added); *cf.* *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005) (stating that an actor “infringes vicariously by profiting from direct infringement” if that actor has the right and ability to stop or limit the infringement and chooses not to).

¹⁶⁶ *Akamai VI*, 797 F.3d at 1023 (citing RESTATEMENT (SECOND) OF TORTS § 491 cmts. b & c (AM. LAW. INST. 1965)).

charged with the acts of the other, rendering each liable for the steps performed by the other as if each is a single actor.”¹⁶⁷ *Akamai VI* further defined a “joint enterprise” as being formed when there exists

- (1) an agreement, express or implied, among the members of the group; (2) a common purpose to be carried out by the group; (3) a community of pecuniary interest in that purpose, among the members; and (4) an equal right to a voice in the direction of the enterprise, which gives an equal right of control.¹⁶⁸

Moreover, *Akamai VI* expressed other unknown categories of joint infringement by stating that “[35 U.S.C.A. §] 271(a) is not limited solely to principal-agent relationships, contractual arrangements, and joint enterprise. . . .”¹⁶⁹ *Akamai VI* repeated that the ultimate question is “whether all method steps can be attributed to a single entity.”¹⁷⁰ Therefore, *Akamai VI* emphasized that “[t]oday we [are] outlin[ing] the governing legal framework for direct infringement and address[ing] the facts presented by this case.”¹⁷¹ That is, *Akamai VI* implied that the new “control or direction” test was created specifically for adjudicating the dispute in *Akamai I*.¹⁷² Therefore, *Akamai VI* concluded that “[i]n the future, other factual scenarios may arise which warrant attributing others’ performance of method steps to a single actor.”¹⁷³ Alternatively, *Akamai VI* concluded that “principles of attribution are to be considered in the context of the particular facts presented.”¹⁷⁴

B. Application of the New “Control or Direction” Test to Akamai I

By applying the new evidentiary rule under the “control or direction” test, *Akamai VI* reinstated the jury verdict finding that

¹⁶⁷ *Akamai VI*, 797 F.3d at 1023 (emphasis added) (citing RESTATEMENT (SECOND) OF TORTS § 491 cmt. b).

¹⁶⁸ *Akamai VI*, 797 F.3d at 1023 (citing RESTATEMENT (SECOND) OF TORTS § 491 cmt. c).

¹⁶⁹ *Akamai VI*, 797 F.3d at 1023 (alteration in original).

¹⁷⁰ *Id.*

¹⁷¹ *Id.* (alteration in original).

¹⁷² *See id.* at 1024–25 (“We conclude that the facts *Akamai* presented at trial constitute substantial evidence from which a jury could find that *Limelight* directed or controlled its customers’ performance of each remaining method step. As such, substantial evidence supports the jury’s verdict that all steps of the claimed methods were performed by or attributable to *Limelight*. Therefore, *Limelight* is liable for direct infringement.”).

¹⁷³ *Id.* at 1023 (alteration in original).

¹⁷⁴ *Id.*

Limelight did direct or control its customers' performance of the "tagging" and "serving" steps in the claimed methods.¹⁷⁵ *Akamai VI* found that the substantial evidence heard by the jury supported not only that "Limelight conditions its customers' use of its content delivery network upon its customers' performance of the tagging and serving steps,"¹⁷⁶ but also "that Limelight establishes the manner or timing of its customers' performance."¹⁷⁷

Regarding the "condition" scenario, *Akamai VI* found that Limelight required its customers to sign a service contract providing that customers must perform the "tagging" and "serving" steps if they wanted to use Limelight's network service.¹⁷⁸ The contract stated that Limelight is not responsible for failure in delivering content if the customer fails to serve the content.¹⁷⁹ The contract also stated that if the customer-selected server was shut down, Limelight's delivery service would not work.¹⁸⁰ Thus, *Akamai VI* concluded that Limelight conditioned its network service on its customers' performance of the "tagging" and "serving" steps.¹⁸¹

Regarding the "establish" scenario, *Akamai VI* found that after a customer completed a service contract with Limelight, Limelight sent to the customer a letter with instruction regarding how to use Limelight's service, including how to apply the "tagging" step.¹⁸² *Akamai VI* also found that Limelight would assign its employees to help its customers implement Limelight's technology.¹⁸³ Without fully complying with the instruction, Limelight's customers would not be able to use Limelight's services.¹⁸⁴ Therefore, *Akamai VI* concluded that Limelight's customers did not merely read the instruction and act on their own, but rather Limelight established the manner and timing of its customers' use of the network service.¹⁸⁵

¹⁷⁵ *Akamai VI*, 797 F.3d at 1024.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Akamai VI*, 797 F.3d at 1024.

¹⁸² *Id.* at 1024–25.

¹⁸³ *Id.* at 1025.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

C. Inducement-Like Test

The *Akamai VI* application to the “establish” scenario is similar to the law of inducement.¹⁸⁶ As *Akamai III* observed, it is enough for an inducer to be held liable if “the inducer ‘cause[s], urge[s], encourage[s], or aid[s]’ the infringing conduct and that the induced conduct is carried out.”¹⁸⁷ In *MEMC Electronic Materials, Inc. v. Mitsubishi Materials Silicon Corp. (MEMC)*,¹⁸⁸ the Federal Circuit held that several factual allegations created genuine issues of material fact with respect to inducement.¹⁸⁹ Some of those allegations showed that the defendant established the manner and timing of the direct infringement.¹⁹⁰ First, the defendant worked with the client “to coordinate shipment dates and the quantity of [products] sent in each shipment. . . .”¹⁹¹ Second, the defendant changed “the manufacturing process in order to address problems [with the products that the client] encounter[ed]. . . .”¹⁹² Third, the defendant’s representatives went to the client’s place to describe the manufacturing process of the products.¹⁹³ Last, the client entered into a purchase contract with the defendant on the condition that the defendant promised to provide technical support for the products.¹⁹⁴

Similarities exist between *MEMC* and *Akamai VI*. First, the accused direct infringement started after one actor promised an obligation to the other actor.¹⁹⁵ In *MEMC*, the defendant promised

¹⁸⁶ *See id.* at 1022 (discussing a single actor controlling or directing the acts of third parties, thereby inducing them to carry out the infringing activities).

¹⁸⁷ *Akamai III*, 692 F.3d 1301, 1308 (Fed. Cir. 2012) (en banc; per curiam) (alteration in original) (quoting *Arris Group, Inc. v. British Telecomm. PLC*, 639 F.3d 1368, 1379 n.13 (Fed. Cir. 2011), *cert. granted*, 134 S. Ct. 895, 895 (2014), *rev’d*, 134 S. Ct. 2111, 2115 (2014), *vacated*, 571 F. App’x 958, 958 (Fed. Cir. 2014) (per curiam), *aff’d*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev’d*, 797 F.3d at 1022, *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

¹⁸⁸ 420 F.3d 1369 (Fed. Cir. 2005), *aff’d in part, vacated in part, appeal dismissed in part*, 248 F. App’x 199, 201 (Fed. Cir. 2007).

¹⁸⁹ *MEMC*, 420 F.3d at 1379.

¹⁹⁰ *Id.*

¹⁹¹ *Id.* at 1374 (alteration in original).

¹⁹² *Id.* at 1379 (alteration in original).

¹⁹³ *Id.*

¹⁹⁴ *Id.*

¹⁹⁵ *Compare Akamai VI*, 797 F.3d 1020, 1024 (Fed. Cir.) (en banc; per curiam) (discussing Limelight’s contractual relationship with its customers, in that Limelight directed and controlled its customers’ performance of the “tagging” and “serving” steps), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016), *with MEMC*, 420 F.3d at 1375 (discussing SUMCO’s “offer to sell” wafers to Samsung Austin in accordance with

to provide technical support before manufacturing products for its client.¹⁹⁶ Likewise, in *Akamai VI*, Limelight's clients had to follow the service contract by performing the required steps to start Limelight's network service.¹⁹⁷ Second, the *MEMC* defendant had to manufacture the products purchased by its client in order to induce the client to directly infringe the patent,¹⁹⁸ while Limelight had to wait for its clients to perform some steps to make all of the claimed steps performed.¹⁹⁹ Last, the *MEMC* defendant sent its employees to their client in order to provide technical support,²⁰⁰ while Limelight's employees helped their clients implement the technology by providing step-by-step instructions.²⁰¹ Therefore, the new "control or direction" test that requires an alleged infringer to "establish[] the manner or timing of its customers' performance" is similar to what is required to find inducement.²⁰²

IV. PATENT PROTECTION ON INTERACTIVE TECHNOLOGY UNDER *AKAMAI VI*

A. Nature of Interactive Technology Patents

The *Akamai VI* approach to joint infringement under 35 U.S.C.A. § 271(a) saves interactive technology patents from being unenforceable due to the loophole of the traditional "control or direction" test.²⁰³ Interactive technology in its nature requires multiple participants that are either independent from or dependent on one another.²⁰⁴ The interactive technology involves

35 U.S.C.A. § 271 (a)).

¹⁹⁶ *MEMC*, 420 F.3d at 1379.

¹⁹⁷ *Akamai VI*, 797 F.3d at 1024.

¹⁹⁸ See *MEMC*, 420 F.3d at 1374–75 ("SUMCO asserts that the post-sale technical support it provides to Samsung Austin cannot qualify as a 'sale' or 'offer to sell' within the meaning of [35 U.S.C.A. §] 271(a) because this support occurs after the wafers have already been purchased and manufactured.").

¹⁹⁹ See *Akamai VI*, 797 F.3d at 1024 ("Limelight performs every step save the 'tagging' step, in which Limelight's customers tag the content to be hosted and delivered by Limelight's content delivery network.").

²⁰⁰ *MEMC*, 420 F.3d at 1379.

²⁰¹ *Akamai VI*, 797 F.3d at 1024–25.

²⁰² See *id.* at 1023–24 (alteration in original) (discussing how Limelight directed or controlled its customers to perform certain steps and carry out the infringing activities).

²⁰³ See *id.* at 1025 (finding substantial evidence that Limelight directed or controlled its customers' performance of remaining method steps, and finding them liable for direct infringement, a result which would not occur under the "single entity" rule).

²⁰⁴ See generally Ruth Bolton & Shruti Saxena-Iyer, *Interactive Services: A*

customer participation.²⁰⁵ Therefore, to perform a method patent that covers interactive technology, a targeted defendant and its customers must work collectively.²⁰⁶

Akamai I and *McKesson I* represent two categories of interactive technology. On one hand, while the CDN technology was operated by a network service company, the implementation of the CDN technology required the company's customer to set up some parameters (URLs for content objects, for example).²⁰⁷ The network service company was a targeted infringer, but did not perform every step of the method claim.²⁰⁸ On the other hand, the patented technology (MyChart) in *McKesson I* was interactive between a health-care provider and its patients.²⁰⁹ Both sides were not targeted infringers, but the software vendor likely was.²¹⁰

In the *Akamai I* category, there was one lead actor in direct infringement, such as Limelight, who provided a service based on the infringing technology.²¹¹ Although a customer had to sign an agreement before using the service, such an agreement did not amount to the customer being obligated to use the service.²¹²

Framework, Synthesis and Research Directions, 23 J. INTERACTIVE MARKETING 91, 91 (2009) (discussing how consumers use interactive technology for online banking services, digital services, and even household appliances, thus demonstrating that multiple participants are involved in interactive services).

²⁰⁵ *Id.*

²⁰⁶ *Akamai VI*, 797 F.3d at 1024 (discussing how Limelight directed or controlled its customers to perform certain steps and carry out the infringing activities, while it performed other steps, thereby working together).

²⁰⁷ *Akamai I*, 614 F. Supp. 2d 90, 116–17 (D. Mass. 2009), *aff'd*, 629 F.3d 1311, 1314 (Fed. Cir. 2010), *vacated*, 419 F. App'x 989, 989 (Fed. Cir. 2011), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d at 1022, *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016).

²⁰⁸ *See Akamai VI*, 797 F.3d at 1024 (discussing how Limelight directed or controlled its customers to perform certain steps and carry out the infringing activities, thus becoming a targeted infringer).

²⁰⁹ *McKesson I*, No. 1:06–CV–2965–JTC., 2009 WL 2915778 at *2 (N.D. Ga. Sept. 8, 2009), *aff'd*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *1 (Fed. Cir. Apr. 12, 2011), *vacated*, 463 F. App'x 906, 906–07 (Fed. Cir. 2011) (en banc; per curiam), *rev'd*, *Akamai III*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (en banc; per curiam).

²¹⁰ *See id.* at *6–7 (discussing the various roles assigned to MyChart users and the health-care providers, and determining that under the “single entity” rule, McKesson's claims of indirect infringement failed, though it is now possible that those same claims would not fail under *Akamai VI*).

²¹¹ *See Akamai I*, 614 F. Supp. 2d at 121–22 (holding that Limelight was not liable for direct infringement, even though it delivered the technological services in question).

²¹² *Id.* (“[T]his step is performed by Limelight's customers not because they are contractually obligated [sic] to do so; rather, they do so because they wish to avail themselves of Limelight's service.”).

Likewise, in the *McKesson I* category, there was one lead actor, such as a health-care provider, who implemented an online system for its patients to check their medical records.²¹³ However, the patients were not obligated to use the online system.²¹⁴ As the result, under the traditional “control or direction” test that required a finding that the accused infringer had contracted with another to perform one or more claimed steps, no direct infringement could be found in those two categories.²¹⁵

The nature of interactive technology makes the new “control or direction” test under *Akamai VI* very important to interactive technology patents. No one may avoid direct infringement now simply by allocating one or more steps to other actors to perform without having them contractually obligated to do so.²¹⁶

B. Strategic Claim Drafting as an Imperfect Solution

Strategic claim drafting may be a solution to the loophole of the traditional “control or direction” test.²¹⁷ As Professor Mark A. Lemley and his co-authors suggested, “[m]ost inventions that involve cooperation of multiple entities can be covered using claims drafted in unitary form simply by focusing on one entity and whether it supplies or receives any given element.”²¹⁸ For Internet technology, the steps describing the relationship between the user and server may focus on the server side.²¹⁹ An example is a claim describing

A method for negotiating a secure communications session,

²¹³ See *McKesson I*, No. 1:06-CV-2965-JTC., 2009 WL 2915775 at *2 (discussing Epic’s licensure of MyChart to various health-care providers, who then utilized MyChart to allow patients to view their medical records, among other services).

²¹⁴ *Id.*

²¹⁵ See Spencer K. Lickteig, *A Madness to the Method: Fixing the Joint Infringement System for Method Patents After Akami Technologies, Inc. v. Limelight Networks, Inc.*, U. ILL. J.L. TECH. & POL’Y, 39, 53–54 (2015) (discussing the “single entity” rule applied in both *Akamai I* and *McKesson I* and how direct infringement was not found in either case).

²¹⁶ *Akamai VI*, 797 F.3d 1020, 1025 (Fed. Cir.) (en banc; per curiam), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016) (discussing how even though Limelight’s customers were not contractually-obligated to perform certain steps, Limelight was still liable for direct infringement).

²¹⁷ *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

²¹⁸ Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 272 (2005) (alteration in original).

²¹⁹ *Id.* at 272–73.

comprising: (a) *receiving* a request *from a client*; (b) in response to the request, *supplying* a server certificate, the server certificate including a public key; (c) *receiving from the client* a unique client key communicated using the server's public key; and (d) thereafter *communicating information* using a crypto-algorithm that employs a derivative of the unique client key and the server's public key.²²⁰

The claim focuses on the server side.²²¹ Instead of sending a request from a client, step (a) is drafted as "receiving a request from a client."²²²

Focusing on the user side is possible when there are foreign servers involved in infringement.²²³ The alternative version of the server-centric claim would recite

A method for negotiating a secure communications session, comprising: (a) *transmitting* a request *to a server*; (b) *receiving from the server* a server certificate including the server's public key; (c) generating a unique client key and *communicating* the unique client key *to the server* using the server's public key; and (d) thereafter *communicating information* using a crypto-algorithm that employs a derivative of the unique client key and the server's public key.²²⁴

This approach focuses on the user side.²²⁵

The key idea of Professor Lemley and his co-authors is to target one centralized infringer rather than several decentralized infringers.²²⁶ However, their solution does not work with the technology in *Akamai I*. Professor Lemley's solution is predicated on each step of the method claim being performed individually.²²⁷ However, in *Akamai I*, the key step of the claims at dispute was performed by both Limelight and its customers collectively.²²⁸ No

²²⁰ *Id.* (emphasis added).

²²¹ *Id.*

²²² *Id.* at 273.

²²³ *Id.* (discussing the complexity of foreign servers being able to avoid U.S. patents by locating the server offshore).

²²⁴ Lemley et al., *supra* note 218, at 273 (emphasis added).

²²⁵ *See id.* at 274 ("This claim covers the same process as claim 2, but here it is the client rather than the server that is performing the steps.").

²²⁶ *See id.* at 274 ("[P]atentees prefer to be able to sue or license centralized rather than decentralized infringers, and drafting the claim to cover the server therefore normally seems more desirable to the patentee.").

²²⁷ *See id.* at 256 (discussing the respective roles of a client and server during the patent process, and how each of their respective steps are performed individually).

²²⁸ *See Akamai I*, 614 F. Supp. 2d 90, 121–22 (D. Mass. 2009), *aff'd*, 629 F.3d

matter whether the claims were drafted as server-centric or user-centric claims, the disputed step would still require the performance of Limelight's customers.²²⁹

Therefore, the only solution to the loophole is the *Akamai VI* approach. By recognizing that Limelight controlled or directed its customers by requiring them to choose their preferable URLs, the *Akamai VI* approach protects interactive technology patents from being unenforceable in a case where an alleged infringer allocates some steps to its customers to perform, where the customers are not obligated to do so.

C. Application to *McKesson I*

What is left after *Akamai VI* is whether the *McKesson I* defendant would have been found liable for inducement. One district court decision indicates that it is possible. In *Eli Lilly & Co. v. Teva Parenteral Medicines, Inc. (Eli Lilly)*,²³⁰ the defendant manufactured and sought a license to sell a prescription drug, pemetrexed disodium (hereinafter, "pemetrexed"), while the patent-in-suit regarded a method of administering pemetrexed to patients.²³¹ The steps claimed in the method patent were performed by a doctor and her patient together, because the doctor gave a prescription to the patient who then took the drug herself.²³² Specifically, the disputed step required "the administration of folic acid to the patient prior to the administration of [the infringing drug]."²³³ Therefore, the ultimate question was "whether physicians will directly infringe the patent by directing or controlling the administration of folic acid to patients."²³⁴

1311, 1314 (Fed. Cir. 2010), *vacated*, 419 F. App'x 989, 989 (Fed. Cir. 2011), *aff'd*, 786 F.3d 899, 915 (Fed. Cir. 2015), *rev'd*, 797 F.3d at 1022, *aff'd in part, rev'd in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016) ("Limelight's customers, following Limelight's instructions, do modify the embedded objects of their web pages or alter their DNS records so that requests for the objects resolve to the content delivery service domain, rather than the content provider domain, in order to take advantage of Limelight's service. However, this step is performed by Limelight's customers not because they are contractually obligated [sic] to do so; rather, they do so because they wish to avail themselves of Limelight's service.").

²²⁹ *See id.* at 121 ("In each case, the customer must perform a step of the patented method in order to obtain the offered service. . . .").

²³⁰ 126 F. Supp. 3d 1037 (S.D. Ind. 2015).

²³¹ *Id.* at 1038–39.

²³² *Id.* at 1039.

²³³ *Id.* at 1042 (alteration in original).

²³⁴ *Id.* at 1039.

The Southern District Court of Indiana, in *Eli Lilly*, found that the prescribing information and patient information all indicated that taking folic acid before taking the infringing drug was crucial to the treatment.²³⁵ Therefore, in applying *Akamai VI* to the case, the court held that the doctor controlled or directed her patient because taking folic acid was a condition of the patient's participation in the treatment recited by the patent-in-suit.²³⁶ Since direct infringement existed, the court held that the defendant was liable for inducement.²³⁷

Similarly, in *McKesson I*, the disputed claim recited several steps which were found to be performed collectively by a patient and health-care provider.²³⁸ The patient only performed the first step of initiating the communication, while the health-care provider did the rest of the steps.²³⁹ Although the patient was not obligated to initiate the communication, if he decided to use MyChart, he had to log into MyChart to receive his personal records from the health-care provider.²⁴⁰ That is, the health-care provider conditioned the patient's use of MyChart on performance of the initiating step and established the manner or timing of the log-in performance.²⁴¹ Thus, it is likely that the health-care provider would have been liable for direct infringement under the new law set forth in *Akamai VI*. It is also likely that the *McKesson I* defendant would have been held liable for inducement under *Akamai VI*.

²³⁵ *Id.* at 1042.

²³⁶ *Eli Lilly*, 126 F. Supp. 3d at 1042–43.

²³⁷ *See id.* at 1041 (“Although the instant case involves the administration of a medical treatment, the factual circumstances are sufficiently analogous to those in *Akamai [VI]* to support a finding of direct infringement by physicians under [35 U.S.C.A.] § 271(a), and thus inducement of infringement by Defendants under [35 U.S.C.A.] § 271(b), under the legal standard recently set forth by the Federal Circuit.”).

²³⁸ *McKesson I*, No. 1:06–CV–2965–JTC., 2009 WL 2915778 at *1–2 (N.D. Ga. Sept. 8, 2009), *aff'd*, No. 2010–1291, 2011 U.S. App. LEXIS 7531 at *1 (Fed. Cir. Apr. 12, 2011), *vacated*, 463 F. App'x 906, 906–07 (Fed. Cir. 2011) (en banc; per curiam), *rev'd*, *Akamai III*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (en banc; per curiam).

²³⁹ *Id.* at *2.

²⁴⁰ *Id.* at *2, *6.

²⁴¹ *See id.* at *2 (“The initial step of ‘initiating a communication’ on MyChart is performed by a patient or other user, not by a healthcare provider.”).

V. CONCLUSION

Before *Akamai VI*, an interactive technology patent could be unenforceable only because an accused infringer did not perform all claimed steps but, rather, allocated one or more claimed steps to other actors to perform without contracting with them to do so. However, *Akamai VI* has changed that. Now, “liability under [35 U.S.C.A.] § 271(a) can also be found when an alleged infringer *conditions* participation in an activity or receipt of a benefit *upon* performance of a step or steps of a patented method and *establishes* the manner or timing of that performance.”²⁴² The new approach saves interactive technology patents. An infringer cannot avoid direct infringement by simply setting one or more steps for others to perform.

²⁴² *Akamai VI*, 797 F.3d 1020, 1023 (Fed. Cir.) (en banc; per curiam), *aff’d in part, rev’d in part*, 805 F.3d 1368, 1372 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1661, 1661 (2016) (emphasis added).