

JOINT PATENT INFRINGEMENT FOLLOWING *AKAMAI*

By

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The Patent Act of 1952 is fundamentally designed to address acts of infringement by a single party.¹ Under the existing statutory framework, a violation of Section 271(a)—the direct infringement provision of the Act—generally requires that one party complete each step of an asserted patent claim.² Meanwhile, the provisions governing indirect patent infringement—under which a party may be liable for contributing to, or inducing, another’s infringement—have also historically required an underlying act of direct infringement by a single actor.³ Thus, before a party could be held liable for direct, contributory or induced infringement, a patentee traditionally had to prove that someone performed each step of the asserted patent claim herself.

Until relatively recently, the Patent Act’s focus on the unitary actions of a single party worked quite well, as any direct infringement almost invariably arose from the activities of a single actor working alone. Recent technological advances have presented challenges to this traditional framework, however, as the development of the Internet has allowed individuals to easily coordinate their activities remotely via networked computers.⁴ This innovation has had a significant impact on patent law—and its application to the e-commerce and telecommunications fields in particular—as many patented processes are now increasingly susceptible to being divided amongst multiple actors working together across a computer network.⁵

To combat this trend, patentees have increasingly filed so-called “divided” or “joint” patent infringement lawsuits over the past decade, alleging direct infringement under Section 271(a) through the combined actions of two or more parties. In other words, these cases contend that multiple parties should be held jointly liable for direct infringement even though none of the defendants have individually performed every step of the patented claim themselves. Although these cases were quite rare historically, courts typically resolved them under traditional notions of vicarious liability, requiring that one of the defendants direct or control all of the infringing activity in order for a direct infringement to have occurred.⁶ As incidents of joint infringement became more common, however, some commentators began to criticize this traditional approach, alleging that it created a loophole through which parties could enter arms-length agreements to jointly infringe a patent without any legal liability.⁷ Other scholars contended that these fears were overstated, however, asserting instead that the traditional standard was justified on policy grounds insofar as direct infringement is a strict liability offense, and therefore could unfairly ensnare parties who unwittingly participated in the joint infringement of a patented invention.⁸

As scholars debated the proper standard for joint infringement cases, an *en banc* U.S. Court of Appeals for the Federal Circuit (“CAFC” or “Federal Circuit”) addressed the issue in 2012 by agreeing to hear joint reargument in the cases of *Akamai Technologies, Inc. v. Limelight Networks, Inc.* and *McKesson Technologies, Inc. v. Epic Systems Corp.* The chief purpose of the rehearing was to decide the following: “If 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?”⁹ Rather than answer the primary question presented in the rehearing, however, a majority of the CAFC sidestepped the issue of joint direct infringement under Section 271(a), and instead focused their opinion on the law of inducement under Section 271(b). Specifically, the *Akamai* majority dispensed with the traditional rule limiting inducement to cases in which the patentee had proven an underlying act of direct infringement by a single party, and instead held that a party engaged in joint infringement could be liable for inducing patent infringement whenever it (i) had knowledge of the patent-in-suit and (ii) encouraged someone else to perform one or more steps of the asserted patent claim, so long as (iii) every step of the claim was ultimately performed by at least one of the parties.¹⁰

Akamai marks a radical change in the law of patent infringement, sweeping aside decades of precedent governing inducement under Section 271(b). In particular, the opinion is the first to ever hold that liability for inducement can arise absent an underlying act of direct infringement punishable under Section 271(a). By decoupling inducement liability from direct infringement, the Federal Circuit misinterpreted the text and original intent of the Patent Act of 1952, and in the process gave new life to a number of poorly drafted patents, including many in the oft-criticized business methods field.¹¹ Moreover, because would-be infringers can still potentially circumvent *Akamai* with relative ease,¹² its fundamental transformation of the law of inducement was particularly unjustified. Instead, any such modification should have come from Congress, which has amended Section 271 in the past to close prior loopholes in the statutory framework, but had shown no inclination to address the joint infringement issue.

This article therefore provides a critical analysis of the CAFC’s *en banc* decision in *Akamai* by first examining the historical development of joint patent infringement doctrine, and second scrutinizing the Federal Circuit’s majority opinion, before finally exploring the decision’s likely implications.

I. THE DEVELOPMENT OF JOINT INFRINGEMENT DOCTRINE

A potential case of joint patent infringement arises any time that two or more parties collectively perform the steps of a

patented claim. This scenario most commonly occurs in the context of what are known as method claims. A method claim identifies a process—i.e., a series of steps or acts—used to perform a function or accomplish some result.¹³ For example, a basic business method claim for Internet advertising might disclose the following steps:

1. Designating an area of a webpage for the insertion of an advertisement;
2. Selecting an advertisement to display in the designated area each time the webpage is accessed by an Internet user;
3. Tracking the number of times a particular advertisement is displayed; and
4. Billing the sponsor of an advertisement based on the number of times its ad was displayed in a given month.

Method claims are particularly susceptible to being divided amongst multiple actors.¹⁴ With respect to the Internet advertising method above, a website could potentially avoid patent infringement liability by outsourcing its advertisement selection, tracking, and billing functions to a third-party vendor. In such a scenario, the website itself would complete the first step of the method—by designating an area on its webpages for the insertion of the advertisements—while the vendor would complete the remaining steps. Unless the website specifically directed and controlled the vendor’s performance of the remaining functions, no direct infringement would have occurred under traditional interpretations of the Patent Act because no single party would have directly or vicariously performed each step of the patented method itself.¹⁵ While the website could intentionally structure its operations in this manner to avoid infringement liability, more commonly parties will simply choose to outsource certain functions to third-party vendors for efficiency purposes, without any infringement-related motives.

Conversely, neither apparatus nor system patent claims typically raise the same joint infringement concerns. In the case of apparatus claims, even if multiple actors divide up the manufacture of a patented machine, any party that sells or uses the final completed device will itself have committed an act of direct infringement under Section 271(a).¹⁶ Meanwhile, because the Federal Circuit has held that system claims are infringed by whichever party ultimately “control[s] the system as a whole and obtain[s] benefit from it”—even if someone else may supply one or more of the system’s components—these claims are also not susceptible to circumvention by multiple parties working together.¹⁷

Despite the seeming ease with which infringement liability for method patent claims can be avoided by dividing the infringing acts among multiple parties, joint infringement cases were surprisingly infrequent prior to the formation of the Internet. When these cases did arise, however, courts struggled at times to resolve them due to various conflicting policy concerns.¹⁸ In order to understand the difficulties raised by these cases—as well as the revolutionary nature of the CAFC’s *en banc* opinion in *Akamai*—a brief historical review of joint infringement case law and the Patent Act of 1952 is instructive.

A. The Common Law of Patent Infringement

Prior to the passage of the Patent Act of 1952 there was no statutory provision governing infringement, with patent infringement instead regulated under common law principles.¹⁹ Applying traditional tort law doctrine, courts historically analogized the use of a patented invention without the patent-holder’s permission to a trespass on his property.²⁰ In order for infringement liability to arise, however, courts demanded that the infringer expropriate each and every element of the patented claim.²¹ As the U.S. Supreme Court explained in the 1883 case of *Fay v. Cordesman*,²² “if the patentee specifies any element as entering into the [patented] combination . . . he makes such element material to the combination, and the court cannot declare it to be immaterial. It is his province to make his own claim and his privilege to restrict it.”²³

Courts subsequently developed the doctrine of contributory infringement to resolve cases in which a party did not itself perform each step of the patent, but nevertheless caused or aided another’s infringement (i.e., situations where one party completed every patented element with the encouragement or assistance of another).²⁴ For example, in the seminal case of *Wallace v. Holmes*,²⁵ the court found that the defendant had “virtually” infringed an apparatus patent for a kerosene lamp by reproducing the burner that was the heart of the invention, knowing its customers would eventually complete the patented lamp by adding its chimney.²⁶ Similarly, in the 1875 case of *Saxe v. Hammond*, the court explained that in suits where several parties each contributed “one of the elements of a patented combination,” infringement would only arise if those elements were ultimately “combined by a party having no right to combine them.”²⁷ Thus, common law courts generally required that in order for someone to be liable for contributory infringement, there must be an underlying act of direct infringement committed by a single party working alone.²⁸

Meanwhile, although a few early courts employed “joint infringement” terminology in suits involving multiple defendants, these cases also typically featured an underlying act of direct infringement by one or more individual actors.²⁹ For example, the court in *Dowagiac Manufacturing Co. v. Deere & Webber Co.* referred to the two defendants as “joint infringers” in a case where one of the defendants directly infringed the patent by producing the infringing drills, and the other defendant performed a separate act of direct infringement by selling the drills.³⁰

In the exceedingly rare case where no single actor directly infringed the patent, but in which the combined actions of two

or more parties did, common law courts typically required that the defendants be affiliated in some type of agency relationship in order for direct infringement liability to arise. For example, in the 1944 case of *Crowell v. Baker Oil Tools, Inc.*,³¹ the Ninth Circuit declared, “It is obvious that one may infringe a patent if he employ [*sic*] an agent for that purpose or have [*sic*] the offending articles manufactured for him by an independent contractor.”³² This requirement was premised on traditional notions of vicarious liability, in which the acts of an agent are fairly attributable to the principal, so long as the latter directed and controlled the former’s activity.³³ Thus, even if the principal did not perform each step of the patented method herself, she was nevertheless liable for direct infringement when she knowingly had an agent complete one or more elements on her behalf.

B. The Patent Act of 1952

Congress codified these common law principles in Section 271 of the Patent Act of 1952.³⁴ Subsection A of the provision defines the act of direct infringement as follows: “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States ... during the term of the patent therefor, infringes the patent.”³⁵ Direct infringement under 271(a) is thus a strict liability offense; a defendant can be liable for infringement even if she is unaware of the patent’s existence.³⁶ However, consistent with the common law doctrine, courts have subsequently interpreted Section 271(a) to require that every step of the asserted patent claim must be performed in order for direct infringement liability to arise,³⁷ a requirement commonly referred to as the “All-Elements Rule.”³⁸ Thus, simply performing all but one of the patented steps is not enough; every element of the patent claim must be performed in order for an infringement to occur.

Having statutorily defined direct infringement, Section 271 then went on to divide the common law doctrine of contributory infringement into two separate provisions governing indirect liability.³⁹ Specifically, subsection B defines “inducement,” declaring that “[w]hoever actively induces infringement of a patent shall be liable as an infringer.”⁴⁰ Subsequent courts have traditionally interpreted this provision by requiring that three elements be proven in order for inducement liability to arise: (i) direct infringement by a third party, (ii) some inducing act by the defendant, and (iii) affirmative intent by the defendant to cause direct infringement (i.e., knowledge of the patent-in-suit).⁴¹ Meanwhile, subsection C defines “contributory infringement” as follows:

Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.⁴²

Applying this language, courts have typically held parties liable for contributing to another’s infringement when they have sold a product constituting a “material part” of a patented invention with the knowledge that it will ultimately be used to infringe the patent, so long as the contributory infringer’s customers then perform the entire requisite direct infringement themselves.⁴³ However, like inducement, contributory liability also requires that the contributing party possess the intent to violate the patent (as evidenced through its knowledge of the patent-in-suit).⁴⁴

Thus, the Patent Act of 1952 establishes a framework that has traditionally been interpreted to require that a single actor actually perform each and every step of an asserted patent claim before any type of infringement liability will arise. The party performing all of the steps is considered the direct infringer, with anyone inducing or contributing to that infringement characterized as an indirect infringer.

C. Post-1952 Joint Infringement Cases

Given that the Patent Act of 1952 maintained the traditional common law approach to direct patent infringement liability—emphasizing the unitary actions of a single party—subsequent courts struggled to apply the new law in cases where multiple actors each performed some steps of the patented claim, but in which no single party acting alone infringed. Fortunately, prior to the development of the Internet, joint infringement cases under Section 271(a) were quite rare, as it was usually impractical for two parties to divide the performance of a patented method between themselves. Although joint infringement suits were thus sporadic, they nevertheless arose frequently enough that courts developed two competing approaches to resolve these types of cases, both primarily focusing on the relationship between the allegedly infringing parties.

The first group of cases followed the general pre-1952 rule, requiring that the alleged joint infringers have effectively entered some sort of agency relationship with one party directing or controlling the other’s activities. For example, in *Free Standing Stuffer, Inc. v. Holly Development Co.*, the court held that the defendant had jointly infringed a patented method relating to the insertion of advertisement circulars into newspapers by specifically directing its printer to collate the ads in a manner mirroring the steps of the asserted patent.⁴⁵ Similarly, although no formal agency relationship existed in *Mobil Oil*

Corp. v. W.R. Grace & Co., the court held that the defendant was nevertheless liable for direct infringement under Section 271(a)—despite not performing every element of the asserted patent claims itself—because it knew that its customers would perform the remaining steps.⁴⁶ As the court explained, the “defendant, in effect, made each of its customers its agent in completing the infringement step, knowing full well that the infringement step would in fact be promptly and fully completed by those customers.”⁴⁷ Along these same lines, the court in *Engate, Inc. v. Esquire Deposition Services, LLC* refused to hold a court reporting company liable for infringing a patent relating to the “real time transcription of trial testimony” because the company did not actually direct its team of court reporters to commit the infringing acts.⁴⁸

Meanwhile, other subsequent courts took a more expansive approach to joint infringement liability, allowing patentees to prevail under Section 271(a) so long as there was “some connection” between the infringing parties.⁴⁹ For instance, the court in *Marley Mouldings Ltd. v. Mikron Industries, Inc.* held that joint infringement liability merely required that there “be some connection between the entities performing the steps of the method patent.”⁵⁰ Likewise, the court in *Faroudja Laboratories, Inc. v. Dwin Electronics, Inc.* determined that method patents were infringed whenever different entities “worked in concert ... to complete the process.”⁵¹

D. The Federal Circuit Enters the Fray

Despite the conflicting district court precedents regarding the proper standard to apply in joint infringement cases, the CAFC failed to enter the fray until relatively recently. In fact, rather than clarify the existing confusion, the Federal Circuit initially complicated matters by issuing two conflicting opinions of its own in 2005 and 2006, respectively. First, in the 2005 case of *Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc.*,⁵² the court considered a lawsuit arising from patents covering implants used to stabilize the spine during orthopedic surgery.⁵³ Because the asserted patent claims required that the implants actually be affixed to a patient’s spine, a step performed by an orthopedic surgeon during surgery, any direct infringement liability for the defendant Medtronic could only arise under a theory of joint infringement.⁵⁴ Along these lines, the plaintiff presented evidence that Medtronic’s representatives regularly appeared in the operating room to assist surgeons with the implantation of the allegedly infringing devices.⁵⁵ In an opinion authored by Judge Linn, a panel of the CAFC rejected the plaintiff’s joint infringement theory, refusing to attribute the activities of the surgeons to Medtronic: “if anyone makes the claimed apparatus, it is the surgeons, who are, as far as we can tell, not agents of Medtronic.”⁵⁶ Thus, the court appeared to adopt an agency-based standard for joint infringement, albeit without providing a significant analysis or discussion of the issue.

A different panel of the CAFC then reversed course a year later in *On Demand Machine Corp. v. Ingram Industries, Inc.*⁵⁷ In *On Demand*, Amazon.com and others were accused of collectively infringing a patent relating to on-demand book printing by offering a service in which single copies of books could be published following a customer order.⁵⁸ Although the Federal Circuit ultimately reversed the lower court’s judgment of infringement on other grounds,⁵⁹ the decision by Judge Newman nevertheless offered some brief dicta regarding the joint infringement issue. Specifically, the lower court had instructed the jury as follows:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.⁶⁰

After quoting the district court instruction in its entirety, the CAFC panel then quickly noted, “We discern no flaw in this instruction as a statement of law.”⁶¹ Once again, however, the court failed to provide any significant analysis or discussion of the issue.

Thus, within the span of six months, two panels of the Federal Circuit had issued conflicting opinions, the first apparently endorsing an agency-based standard for joint infringement, and the second seemingly permitting liability any time the combined actions of two parties infringed a patent.

1. *BMC Resources, Inc. v. Paymentech, L.P.*

The CAFC finally resolved this conflict in the 2007 case of *BMC Resources, Inc. v. Paymentech, L.P.*⁶² *BMC* involved a patented method for processing debit banking transactions without a personal identification number (PIN).⁶³ Because the asserted claims included steps to be performed by (i) a bank account holder, (ii) a third party billing processor, and (iii) a financial institution, they were incapable of being infringed by a single party acting alone.⁶⁴ At the trial court level, Magistrate Judge Kaplan reviewed the existing joint infringement precedent and concluded that “the cases appear to require an agency relationship or evidence that the accused infringer directs or controls the infringing activities of the other

parties.”⁶⁵ Applying this standard, the district court determined that the plaintiff had proven nothing more than an arms-length relationship between the defendant and other allegedly infringing entities, and therefore granted summary judgment of non-infringement.⁶⁶

A panel of the CAFC affirmed on appeal.⁶⁷ In an opinion by Judge Rader, the court determined that the “district court properly analyzed the law,”⁶⁸ concluding that traditional principles of vicarious liability required a “showing that the liable party controlled the conduct of the acting party.”⁶⁹ Applying this general principle in the patent context, the court held that in order for joint infringement liability to arise, one party must have exhibited “control or direction” over the other’s activities.⁷⁰

The Federal Circuit justified its heightened “direction or control” standard on policy grounds. In particular, the court noted that the typical recourse against a party that does not itself directly infringe a patent, but instead encourages another’s infringement, is to seek redress for indirect infringement (on either inducement or contributory grounds).⁷¹ However, because “[i]ndirect infringement requires, as a predicate, a finding that some party amongst the accused actors has committed the entire act of direct infringement,”⁷² the court feared that “expanding the rules governing direct infringement to reach independent conduct of multiple actors would subvert the statutory scheme for indirect infringement.”⁷³ Put differently, because both inducement and contributory infringement liability traditionally required not only an underlying act of direct infringement, but also a showing of intent, the court believed that patentees would forgo filing indirect infringement cases and instead proceed under a broad strict liability-based theory of joint direct infringement under Section 271(a).⁷⁴

Although the *BMC* court acknowledged that its direction or control standard “may in some circumstances allow parties to enter into arms-length agreements to avoid infringement,” it nevertheless believed that “this concern does not outweigh concerns over expanding the rules governing direct infringement.”⁷⁵ Instead, the court asserted that such fears can “usually be offset by proper claim drafting,” noting that the plaintiff in *BMC* “could have drafted its claims to focus on [the activities of] one entity.”⁷⁶ Put differently, the court believed that patentees could avoid any potential loophole created by its decision by simply drafting their patent claims to focus solely on activity that would necessarily be performed by a single party acting alone.

Unfortunately, despite establishing a definite standard for joint infringement cases, the *BMC* court failed to provide much guidance regarding what would constitute sufficient direction or control for liability to arise. Indeed, the decision simply found that the plaintiff had failed to develop “any evidence that [the defendant] provides instructions or directions regarding” the allegedly infringing activity.⁷⁷ As a result, the CAFC affirmed the lower court’s grant of summary judgment of non-infringement.⁷⁸

2. *Muniauction, Inc. v. Thomson Corp.*

Although the Federal Circuit’s decision in *BMC* failed to expound upon the direction or control standard for joint infringement liability, the CAFC offered additional guidance the following year in the 2008 case of *Muniauction, Inc. v. Thomson Corp.*⁷⁹ *Muniauction* involved a patented method for auctioning municipal bonds over the Internet.⁸⁰ Because the asserted claims were clearly written to require the actions of multiple parties, the question raised in the case was simply whether the defendant had exhibited sufficient direction or control over all of the patented steps in order for joint infringement liability to arise.⁸¹

The *Muniauction* panel noted that following *BMC*, the proper standard to apply in joint infringement cases was “whether [the defendant] sufficiently controls or directs other parties ... such that [it] can be said to have performed every step of the asserted claims.”⁸² Although the evidence developed at trial showed that the defendant had both controlled “access to its system and instruct[ed] bidders on its use,” the Federal Circuit concluded that this was “not sufficient to [impose] liability for direct infringement.”⁸³ Instead, the court held that liability for joint infringement could only arise when the defendant either “performed every step of the claimed methods [itself or] had another party perform steps on its behalf.”⁸⁴

3. Scholarly Reaction to *BMC* and *Muniauction*

Following the CAFC’s decisions in *BMC* and *Muniauction*, scholarly commentators were largely critical of the newly established standard for joint infringement.⁸⁵ These authors generally argued that it was “unfair and perverse” to create a potential loophole in which two parties could avoid infringement liability simply by collaborating at arms-length without one party directing and controlling the other’s activities.⁸⁶ Moreover, they feared, the Federal Circuit’s new standard risked rendering thousands of patents practically unenforceable—and thus essentially worthless—given the ease with which parties could now avoid infringement liability.⁸⁷

Not all scholars were opposed to the new standard, however. For example, in an article written prior to *BMC*, noted intellectual property scholar Mark Lemley persuasively rebutted the critics’ argument by contending that because “patent infringement is a strict-liability offense ... permitting enforcement of distributed patent claims against anyone who produces or performs any single element, with or without an intent to infringe, would sweep a large number of innocent actors within the ambit of patent infringement.”⁸⁸ This concern was particularly acute in cases where a party’s only contribution to an alleged patent infringement was the provision of a “staple item[] of commerce”—such as a computer—with the party potentially facing liability without any way to reasonably anticipate the ramifications of its otherwise innocent activities.⁸⁹

As a result, Professor Lemley asserted, an agency-based standard was proper in joint infringement cases.⁹⁰

Moreover, Professor Lemley also anticipated the *BMC* court's concern that expanding direct infringement liability to encompass the combined activities of parties operating at arms-length would circumvent the statutory scheme for indirect patent infringement, "render[ing] both § 271(b) and § 271(c) meaningless."⁹¹ Rather than undermine the statutory scheme governing indirect liability, he believed that any concerns arising from joint infringement cases could instead be remedied through better claim drafting.⁹² Take, for example, a method patent claiming the process used to make a simple telephone call. Rather than explicitly including steps to be completed by both parties to the call, a patentee could instead draft the patent to focus only on the actions of the party receiving the call. This could be accomplished by drafting a method claim as follows:

1. Receiving a telephone call;
2. Answering the telephone call by lifting the receiver;
3. Talking into the receiver; and
4. Ending the telephone call by hanging up the receiver.

This claim would thus avoid the need to prove that one of the callers directed and controlled the other's activity, and instead could be infringed based on the actions of a single party alone anytime a telephone call was made.

In addition to Professor Lemley's policy arguments, other commentators noted that the Patent Office's reissue procedure offered a means to salvage some patents that had been rendered largely unenforceable by *BMC* and *Muniauction*.⁹³ While such an option was not without its risks—the patentee surrenders its original patent and loses the right to prosecute infringement that arises during the pendency of the reissue process—a reissued patent would nevertheless allow patentees to redraft their claims to encompass only the activities of a single party.⁹⁴

E. Post-BMC/Muniauction Joint Infringement Cases

While the scholarly debate regarding the soundness of the *BMC/Muniauction* standard continued, lower courts began to apply the direction or control test in subsequent joint infringement cases. As critics of the Federal Circuit's decisions had feared, patentees found it difficult to prevail under the new paradigm,⁹⁵ with district courts increasingly demanding that plaintiffs provide proof of either an agency relationship or an actual contractual obligation to perform the infringing steps in order for joint infringement liability to arise.⁹⁶ For example, in *Global Patent Holdings, LLC v. Panthers BRHC LLC*, several parties were alleged to have jointly infringed a patent relating to the downloading of audio-visual files over the Internet.⁹⁷ The trial court held that in light of *BMC* and *Muniauction*, "mere guidance or instruction in how to conduct some of the steps of the method patent" was insufficient;⁹⁸ the court instead required evidence "of a contractual obligation" to perform, or proof of an agency relationship, in order to proceed on a joint infringement claim.⁹⁹ Similarly, in *Emtel, Inc. v. LipidLabs, Inc.*, the district court concluded that "[g]iving instructions or prompts to the third party in its performance of the steps necessary to complete infringement, or facilitating or arranging for the third-party's involvement in the alleged infringement, are not sufficient."¹⁰⁰ Instead, it held that the joint infringers must be working together "in accordance with specific instructions and requirements" to support a finding of joint infringement under Section 271(a).¹⁰¹

Given the difficulty patent-holders faced in asserting joint infringement claims following *BMC* and *Muniauction*, at least one judge on the CAFC began to publicly question the soundness of the direction or control standard. In *Golden Hour Data Systems, Inc. v. emsCharts, Inc.*,¹⁰² Judge Newman dissented from a majority opinion affirming the lower court's decision that sufficient direction or control was not established when the defendants had simply coordinated their activities outside of an agency relationship.¹⁰³ In particular, Judge Newman asserted that the direction or control standard was "incorrect as a matter of law,"¹⁰⁴ arguing that "[a] collaborative effort ... is not immune from infringement simply because the participating entities have a separate corporate status."¹⁰⁵ She contended that the trial court should have held that the defendants were jointly infringing the patent given that they "combined their procedures into an integrated system that met all of the limitations of [the asserted] claims."¹⁰⁶ Judge Newman was thus continuing to endorse the standard she had adopted in dicta in the *On Demand* case in 2006.¹⁰⁷

II. AKAMAI AND MCKESSON

With both scholarly commentators and even some members of the CAFC having expressed their dissatisfaction with the *BMC/Muniauction* standard for joint infringement, the Federal Circuit agreed to reconsider the issue *en banc* in 2012 in the combined appeals of *Akamai Technologies, Inc. v. Limelight Networks, Inc.* and *McKesson Technologies, Inc. v. Epic Systems Corp.*

A. Akamai Case History

The patents at issue in *Akamai* dealt with a process for more efficiently providing web content to users across the Internet.¹⁰⁸ Specifically, the patents claimed a method in which large component files embedded on a web page, such as photos or videos, are placed on separate servers managed by third party service providers in various geographic areas.¹⁰⁹ This process enabled websites to avoid having to purchase and maintain enough server capacity of their own to handle unexpectedly large demand for their web content, while also helping to prevent physically remote users of the websites from experiencing slow transmission speeds due to Internet delays or congestion.¹¹⁰ Limelight, the defendant in the case, offered competing web content delivery services to its clients utilizing a similar process.¹¹¹

Because both Limelight's service and the asserted patents relied on the website content provider itself fulfilling one or more of the steps of the process, Akamai was unable to proceed under a traditional theory of direct infringement and instead had to rely on a joint infringement claim.¹¹² Two weeks before the Federal Circuit released its decision in *Muniauction*, the *Akamai* trial court refused to grant Limelight's motion to dismiss the case pursuant to *BMC*, believing that a colorable claim of joint infringement had been alleged.¹¹³ However, the district court agreed to reconsider its decision following the release of *Muniauction*. Specifically, the court interpreted the CAFC's new precedent as requiring "something more than merely a contractual agreement to pay for a defendant's services and instructions or directions on how to utilize those services."¹¹⁴ Because there was "no suggestion that the agreements between Limelight and its customers for content delivery services were other than the result of an arms-length contract," the court dismissed the case pursuant to *Muniauction*.¹¹⁵

On appeal, a panel of the Federal Circuit affirmed.¹¹⁶ Applying *BMC* and *Muniauction*, the court determined that "what is essential [in the joint infringement inquiry] is not merely the exercise of control or the providing of instructions, but whether the relationship between the parties is such that acts of one may be attributed to the other."¹¹⁷ As the *Akamai* panel explained, "there can only be joint infringement when there is an agency relationship between the parties who perform the method steps or when one party is contractually obligated to the other to perform the steps."¹¹⁸ The court thus once again limited joint infringement to cases in which all of the infringing acts could be attributed either directly or vicariously to a single party. Given that Akamai had failed to establish either the requisite agency relationship or a contractual obligation to perform, the appellate panel affirmed the trial court's dismissal of the case.¹¹⁹

B. McKesson Case History

As with *Akamai*, Internet-related patents were also at issue in *McKesson Technologies, Inc. v. Epic Systems Corp.* Specifically, the asserted patent claimed a process for facilitating electronic communication between a healthcare provider and her patients.¹²⁰ Similar to the asserted patents in *Akamai*, McKesson's patented claims included steps to be performed by multiple parties (in this case both the patient and the doctor).¹²¹ Meanwhile, the defendant, Epic Systems, provided a "MyChart" service to physicians allowing them to enable their patients to access medical records and schedule appointments electronically.¹²² McKesson filed an inducement case against Epic, asserting that the company induced doctors and their patients to jointly infringe its patents through use of the MyChart system.¹²³

Relying on both *BMC* and *Muniauction*, the trial court decided that the plaintiff's evidence was "insufficient to demonstrate the direction and control necessary to establish joint infringement."¹²⁴ Although McKesson had emphasized the fact that MyChart allowed physicians to control their patients' access to the system, and required users to abide by various terms and conditions, the court rejected the plaintiff's joint infringement claim because the patients were not contractually obligated to use the system.¹²⁵ As a result, absent any proof of a sufficient underlying direct joint infringement, Epic was not liable for inducing infringement of the asserted patent.

A panel of the CAFC affirmed the district court's decision pursuant to the *BMC*, *Muniauction*, and *Akamai* precedents. In particular, the majority opinion by Judge Linn stressed that *Akamai* had held that joint infringement required proof of either an agency relationship or a contractual obligation to perform the patented steps.¹²⁶ Without such a showing, the majority opinion concluded, "the MyChart users' actions cannot be attributed to the MyChart providers," and therefore Epic had not induced any party to directly infringe the patent-in-suit.¹²⁷

However, as in *Golden Hour Data Systems*,¹²⁸ Judge Newman once again dissented in *McKesson*. Reiterating her frustration with the Federal Circuit's joint infringement standard, her dissent noted that "neither collaboration nor joint action nor facilitation nor authorization nor invitation can overcome the immutable barrier to infringement when all of the participating entities are not under the 'control or direction' of a mastermind infringer."¹²⁹ Asserting that none of the CAFC's pre-*BMC* precedent had required that a single actor either directly or vicariously perform every infringing act,¹³⁰ Judge Newman instead contended that the jury instruction quoted in the *On Demand* decision—simply requiring that two parties collectively perform all of the patented steps—accurately summarized the law of joint infringement.¹³¹

Meanwhile, Judge Bryson issued an abbreviated concurring opinion in *McKesson*, stating:

I agree that the decision in this case is correct in light of this court's decisions in *BMC Resources*, *Muniauction*, and *Akamai Technologies*. Whether those decisions are correct is another question, one that is close enough and important enough that it may warrant review by the en banc court in an appropriate

case.¹³²

Thus, even though the majority decision in *McKesson* left the CAFC's existing joint infringement standard intact, a majority of the panel nevertheless believed the issue should be reexamined in the future.

C. Akamai En Banc Opinion

The Federal Circuit heeded the calls for a reexamination of the *BMC/Muniauction* standard for joint infringement by granting a joint, *en banc* rehearing in *Akamai* and *McKesson*.¹³³ When granting the rehearing in *Akamai*, the court asked the parties to brief one specific issue: "If 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?"¹³⁴ Meanwhile, because *McKesson* was based entirely on a claim of inducement rather than direct infringement, the questions to be briefed for the rehearing of that appeal focused on issues of indirect infringement:

1. If separate entities each perform separate steps of a method claim, under what circumstances, if any, would either entity or any third party be liable for inducing infringement or for contributory infringement?; and
2. Does the nature of the relationship between the relevant actors—e.g., service provider/user; doctor/patient—affect the question of direct or indirect infringement liability?¹³⁵

Given the focus of the rehearing in the *Akamai* case on direct infringement, many observers expected the Federal Circuit to either affirm or substantially alter the existing standard for joint infringement under Section 271(a).¹³⁶ Contrary to these expectations, however, a bare majority of the *en banc* CAFC sidestepped the issue of direct infringement almost entirely in a *per curiam* opinion released on August 31, 2012.¹³⁷ The 6-5 majority instead opted to focus their decision on the law of inducement under Section 271(b), modifying the traditional requirement that an underlying act of direct infringement be performed in order for inducement liability to arise.

The majority opinion began by briefly discussing the issue of joint direct infringement, addressing the policy rationale underpinning the traditional rule that a single party must itself directly or vicariously perform each step of a method claim:

Because direct infringement is a strict liability tort, it has been thought that extending liability [to multiple independent parties collectively performing the steps of the method claim] would ensnare 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.¹³⁸

The court then reiterated the *BMC/Muniauction* standard by stating that joint infringement liability only arises under Section 271(a) when one party can properly be held accountable for the activities of another, such as in the case of an agency relationship or a showing of "direction or control."¹³⁹ Although the propriety of this rule was expected to be the focal point of the *en banc* opinion, the majority instead opted to eschew the issue entirely, stating: "Because the reasoning of our decision today is not predicated on the doctrine of direct infringement, we have no occasion at this time to revisit any of those principles regarding the law of divided infringement as it applies to liability for direct infringement under 35 U.S.C. § 271(a)."¹⁴⁰

Instead, the majority focused on induced infringement under Section 271(b). It began by contending that because inducement extends liability to parties "who advise[], encourage[], or otherwise induce[] others to engage in infringing conduct, it is well suited to address the problem presented by the cases before us."¹⁴¹ Nevertheless, the majority recognized that a traditional inducement claim had several relevant limitations. For instance, unlike the strict liability standard for direct infringement, inducement requires evidence that the "inducer act with knowledge that the induced acts constitute patent infringement."¹⁴² Meanwhile, the court also acknowledged "that there can be no [inducement] without direct infringement."¹⁴³ Thus, a claim for inducement not only requires that the inducer "'cause[s], urge[s], encourage[s], or aid[s]' the infringing conduct," but also that "the induced conduct is [actually] carried out."¹⁴⁴

While the majority's inducement discussion had generally been uncontroversial up to this point, the court quickly shifted to more contentious grounds. Despite acknowledging that a finding of inducement had always required "proof that there has been direct infringement," the court stated that this was "not the same as requiring proof that a single party would be liable as a direct infringer."¹⁴⁵ In other words, even if the defendants' collective use of the patented method did not rise to the level of joint direct infringement under Section 271(a), the majority asserted that those same acts could still be combined to create a sufficient act of "direct infringement" for purposes of sustaining a case of inducement. The *Akamai* majority was thus interpreting the term "direct infringement" differently for purposes of inducement under 271(b) than it had always been understood in the context of the direct infringement provision itself, Section 271(a).

Specifically, the majority held that although “all of the steps of a claimed method must be performed in order to find induced infringement ... it is not necessary to prove that all the steps were committed by a single entity.”¹⁴⁶ Instead, under the Federal Circuit’s new formulation, liability for inducement will arise any time that a party (i) knows of the patent-in-suit, and (ii) induces the performance of the steps claimed in the patent, so long as (iii) all of the steps are ultimately performed.¹⁴⁷ In reaching this holding, the *Akamai* majority explicitly overruled *BMC Resources* only to the extent that the prior decision had held that liability for inducement hinges on an underlying act of direct infringement by a single party.¹⁴⁸ Thus, following *Akamai*, patentees can proceed on a case of inducement against alleged joint infringers even though the CAFC’s own, still binding precedent under 271(a) would not permit the patent-holder to prevail against the same parties for the underlying act of direct infringement.

The Federal Circuit’s *en banc* majority justified its new formulation of inducement on several grounds. First, the court argued that from the patentee’s perspective, the same harm is inflicted whether an inducer entices a single party to directly infringe the patent, or induces multiple parties to jointly infringe the patent.”¹⁴⁹ Under this logic, the majority contended, “[i]t would be a bizarre result to hold someone liable for inducing another to perform all of the steps of a method claim but to hold harmless one who goes further by actually performing some of the steps himself.”¹⁵⁰ The court purported to ground these observations in the Patent Act, stating:

Nothing in the text indicates that the term ‘infringement’ in section 271(b) is limited to ‘infringement’ by a single entity. Rather, ‘infringement’ in this context appears to refer most naturally to the acts necessary to infringe a patent, not to whether those acts are performed by one entity or several.¹⁵¹

Second, the *en banc* majority interpreted the legislative history of the Patent Act of 1952 to support its new inducement standard. Specifically, the court pointed to Congressional testimony from Giles Rich, one of the drafters of the Act, who analogized “contributory infringement ... [to] the law of joint tortfeasor where two people somehow together create an infringement which neither one of them individually or independently commits.”¹⁵² Similarly, the majority also quoted another portion of Rich’s testimony in which he discussed the potential infringement of patents covering various radio transmission methods despite the fact that “a radio transmitter and a radio receiver are owned and operated by different persons.”¹⁵³ In particular, Rich stated that although “there is obvious infringement of the patent, there is no direct infringer of the patent but only two contributory infringers.”¹⁵⁴ In light of this testimony, the *en banc* majority concluded that Rich had “clearly indicate[d] that he viewed indirect infringement as an available remedy even in the absence of any single direct infringer.”¹⁵⁵

Finally, the *Akamai* court justified its expanded definition of inducement by analogizing the new standard to principles of criminal and tort law. For instance, it noted that under the Federal Criminal Code, accessory liability extends to anyone who “aids, abets, counsels, commands, induces or procures” the commission of a crime, or one who “willfully causes an act to be done which if directly performed by him or another would be an offense against the United States.”¹⁵⁶ Along these same lines, the majority quoted the Second Restatement of Torts as stating that one can be held liable as a joint tortfeasor if he “orders or induces [tortious] conduct, [so long as] he knows or should know of circumstances that would make the conduct tortious if it were his own.”¹⁵⁷ The court found the tort analogy to be “particularly telling” given that patent infringement liability had originally been based on common law tort principles.¹⁵⁸ Thus, the *en banc* majority remanded both *Akamai* and *McKesson* back to their respective district courts for a determination of whether the respective plaintiffs could prevail under the newly revised theory of induced infringement.¹⁵⁹

D. *Akamai En Banc Dissents*

Given the *en banc* majority’s innovative and expansive interpretation of inducement in *Akamai*, it was not surprising that the opinion generated two strenuous dissents. First, Judge Newman revived her earlier dissenting opinions in the *Golden Hour* and *McKesson* (panel) appeals by criticizing the requirement that a single party must itself perform each step of a patented method—either directly or vicariously—in order for direct infringement liability to arise (a rule preserved by the *Akamai* majority¹⁶⁰). In particular, she emphasized that Section 271(a) imposes liability on “whoever” directly infringes a patent, a word she believed embraced both “the singular and plural” tenses.¹⁶¹ As a result, she contended, liability for direct infringement should arise whenever “all of the claimed steps are performed, whether by a single entity or more than one entity, whether by direction or control, or jointly, or in collaboration or interaction.”¹⁶²

At the same time, Judge Newman also criticized the majority’s expansive interpretation of inducement under Section 271(b), characterizing it as “a spontaneous judicial creation.”¹⁶³ She focused in particular on the incongruous logic supporting the majority’s contention that although inducement requires an underlying act of direct infringement, that does not mean that someone must actually be liable under Section 271(a): “I need not belabor the quandary of how there can be direct infringement but no direct infringers.”¹⁶⁴ Consequently, Judge Newman took the majority to task for sidestepping the issue of direct infringement liability and thereby avoiding the most pressing issue presented in the case: “The problem before the court is not whether an inducer, properly defined, is liable for infringement; the problem is whether a method patent is infringed when more than one entity perform the claimed steps of the method.”¹⁶⁵

Meanwhile, in a dissent authored by Judge Linn, four of the CAFC's judges similarly criticized the majority's new interpretation of inducement, but argued that the existing *BMC/Muniauction* standard for joint direct infringement sufficiently addressed the issue. In particular, they focused on the strict liability nature of direct infringement, contending that a single entity rule is necessary to "protect[] an actor who practices less than all elements of a claim ... from direct patent infringement liability."¹⁶⁶ Otherwise, they feared, the manufacturer of a nut or bolt may unwittingly find itself jointly liable for patent infringement due to the fact that one of its customers happened to use the item to infringe a patent.¹⁶⁷ The Linn dissenters thus insisted that traditional principles of vicarious liability should govern when the activities of multiple parties can be combined to find an infringement.¹⁶⁸

With respect to the inducement issue in particular, the Linn dissent criticized the majority's attempt to distinguish direct infringement for purposes of Section 271(a) from the underlying direct infringement necessary for inducement liability under 271(b). Specifically, the judges noted that the legislative history for Section 271 in both the House and Senate clearly stated that subsection (a) "is a declaration of what constitutes infringement."¹⁶⁹ Because subsection (b) then explicitly premises inducement liability on "induc[ing] infringement," the dissent argued that under traditional rules of statutory interpretation the two references to "infringement" must be defined consistently.¹⁷⁰ Thus, they contended, the existing statutory scheme clearly required an underlying act of direct infringement under Section 271(a) in order for inducement liability to arise.¹⁷¹

Accordingly, the Linn dissenters accused the *en banc* majority of improperly assuming the role of policy maker, effectively rewriting Section 271(b) to reflect what they believe "Congress ought to have done rather than what it did."¹⁷² The dissent further noted that Congress has revised Section 271 on several occasions in the past to encompass infringing activity not explicitly covered by the existing statutory language, and therefore could have amended the Act once again to address the joint infringement issue if it had it desired to do so.¹⁷³ Finally, the Linn dissent disputed the majority's analogies to criminal and tort law, noting with respect to criminal aiding and abetting liability that such a charge still required proof of an underlying statutory violation (i.e., the completion of some or act).¹⁷⁴ Similarly, they asserted, tort law also required the completion of an underlying act or breach of a duty that was itself tortious to give rise to inducement liability.¹⁷⁵ Therefore, they insisted, the majority's analogies did not support its expansive new interpretation of inducement.

III. CRITICISMS AND IMPLICATIONS OF *AKAMAI*

The *en banc* majority's expansion of inducement liability in *Akamai* can be criticized on several grounds beyond those identified by the two dissents in the case. Nevertheless, because the decision remains binding authority, its implications for joint patent infringement litigation must also be considered.

A. Criticisms of *Akamai*

As an initial matter, the *en banc* majority's attempts to justify its decoupling of "infringement" for purposes of inducement under Section 271(b) from the traditional definition provided in Section 271(a) fail to withstand scrutiny. Specifically, the *Akamai* majority contended that "infringement" could be defined differently for purposes of the two provisions because it believed that 271(a) does not set forth a global definition of the term, but instead merely specifies one type of infringement liability.¹⁷⁶ In support of its position, the court relied on Congressional testimony from Giles Rich, one of the drafters of the Patent Act of 1952, which it believed supported the contention that inducement did not require an underlying act of direct infringement.¹⁷⁷

There are several problems with the majority's argument. First, both the legislative history for the Patent Act, as well as its subsequent interpretation by the Supreme Court, directly contradict the *Akamai* majority's belief that "infringement" can properly be defined differently for purposes of Sections 271(a) and (b), respectively. As pointed out in the Linn dissent, the House and Senate Reports for the Act both clearly state that 271(a) "is a declaration of what constitutes infringement."¹⁷⁸ The Supreme Court has adopted this same interpretation of the statute, noting in *Aro Manufacturing* that Section "271(a) of the new Patent Code ... defines 'infringement.'"¹⁷⁹ Thus, the *Akamai* majority's contention that 271(a) does not delineate "infringement" is simply false as a matter of both the relevant legislative history and Supreme Court jurisprudence.¹⁸⁰

Moreover, basic rules of statutory interpretation demand that Sections 271(a) and (b) be interpreted consistently. Section 271(a) defines what it means to directly infringe a patent, stating that "whoever without authority makes, uses, offers to sell, or sells any patented invention ... *infringes the patent*."¹⁸¹ Meanwhile, Section 271(b) specifies that "[w]hoever actively induces *infringement* of a patent shall be liable as an infringer."¹⁸² Because both subsections utilize different conjugations of the word "infringe," they should be defined consistently.¹⁸³ As the Supreme Court has stated, the "normal rule of statutory interpretation [is] that identical words used in different parts of the same statute are generally presumed to have the same meaning."¹⁸⁴ Otherwise, "[t]o give these same words a different meaning for each category would be to invent a statute rather than interpret one."¹⁸⁵

Nor does the majority's reliance on the Congressional testimony of Giles Rich support its novel interpretation of Section 271(b). As an initial matter, the Supreme Court has held that Congressional testimony from non-Representatives, especially testimony that is not included in the official House or Senate Report for the bill, should not be given any significant weight

when interpreting a statute.¹⁸⁶ Not only did the *Akamai* majority emphasize testimony from Rich that was not included in either the House or Senate Report, but it was actually delivered several years before the passage of the Act during an earlier Congress' consideration of patent reform.¹⁸⁷

Moreover, the statements by Rich that the *Akamai* majority relied on were themselves unclear regarding the intent behind Section 271(b), and in any event were contradicted by Rich's own later discussion of the provision. For example, the *en banc* majority placed great weight on a statement by Rich that "contributory infringement is a specific application to patent law of the law of joint tortfeasor where two people somehow together create an infringement which neither one of them individually or independently commits."¹⁸⁸ The *Akamai* court interpreted this reference to contributory infringement to mean "both contributory infringement and induced infringement,"¹⁸⁹ on the assumption that Rich was employing the prior common law terminology in which "contributory infringement" was used to describe any indirect infringement. However, given that Rich was testifying in support of a codification that explicitly distinguished between contributory and induced infringement, it is far from clear that the statement in question should be interpreted so broadly.

Regardless, Rich repudiated this position in his later testimony, subsequently asserting that "wherever there is contributory infringement there is somewhere something called direct infringement."¹⁹⁰ Indeed, Rich's own law review commentary on the 1952 Act later explained that "[a]ctive inducement implies there is not a direct infringement by the one doing the inducing and that the direct infringement was by another."¹⁹¹ In fact, the very notion of using 271(b) to target underlying acts of direct infringement was antithetical to the intent of the drafters of the statute. As Rich clearly stated in his law review commentary, "[i]n suing a direct infringer one would not have recourse to paragraph (b)."¹⁹² Thus, far from providing support for the *Akamai* majority's expansive interpretation of inducement liability, Rich's commentary—taken as a whole—actually refutes it. Not only did he subsequently clarify that indirect liability requires an underlying act of direct infringement, but he also specifically repudiated the notion that Section 271(b) could be used to attack underlying acts of direct infringement in the manner that the *en banc* majority authorized.

In addition to relying on a fundamentally flawed distinction between "infringement" for purposes of 271(a) and (b), the *Akamai* majority also employed faulty analogies to both criminal and tort law. Specifically, with regards to criminal law, the court asserted that aiding and abetting liability arises whenever someone "induces or causes a criminal offense even when the principal is found not liable for the unlawful conduct."¹⁹³ However, as the Linn dissenters noted, criminal aiding and abetting liability still requires proof of an underlying statutory violation.¹⁹⁴ Indeed, the related precedents cited by the majority simply reflected cases in which the accessory to the crime was convicted, even though the perpetrator of the underlying criminal act was not;¹⁹⁵ they do not stand for the proposition that the commission of an underlying criminal act is not a fundamental element in an accessory case. In actuality, in order for criminal aiding and abetting liability to arise, the government must prove the commission of a crime in the accessory case, even if the perpetrator of the actual crime was not convicted in his own trial.¹⁹⁶ These cases are thus quite different from the *Akamai* majority's new standard for inducement, in which a party can be liable for inducing activity that, in and of itself, does not violate any statutory provision.

The *en banc* majority's analogies to tort law are similarly flawed. In particular, the court primarily relied on the Restatement (Second) of Torts § 877(a), interpreting the provision as providing "that a person is liable for tortious conduct if he 'orders or induces the conduct, if he knows or should know of circumstances that would make the conduct tortious if it were his own.'"¹⁹⁷ However, the majority opinion omitted the introductory clause to the provision, which states: "For harm resulting to a third person *from the tortious conduct of another*, one is subject to liability if he"¹⁹⁸ Thus, the Restatement provision referenced by the *Akamai* court itself conditions inducement liability on the commission of an underlying tort by another.

Read in its entirety, this provision from the Restatement therefore actually undermines the *Akamai* majority's position, because in a joint infringement case no one has committed an underlying tortious act. Indeed, the *Akamai* majority did not alter the pre-existing rule requiring that a single party itself directly or vicariously perform each step of a patented method in order for direct infringement to arise under 271(a).¹⁹⁹ Nor does the performance of some, but not all, of the claimed steps violate a patent.²⁰⁰ Thus, if no single party has performed the entire method, then no tortious activity has occurred under Section 271, rendering the *en banc* majority's reliance on the Restatement misplaced. Indeed, the provision the court cited simply supports the traditional interpretation of inducement under the Patent Act, namely a situation in which an inducing party causes another actor to commit a direct infringement of the patent-in-suit herself. Consequently, the *Akamai* majority's expansive theory of inducement is not only unsupported by the relevant statutory text and legislative history, but also by analogous criminal and tort law doctrine.

While such a usurpation of Congressional authority is rarely justified, it was particularly unwarranted in this case. Indeed, Congress had just conducted a thorough reexamination of U.S. patent law policy during its consideration of the Leahy-Smith America Invents Act of 2011 ("AIA").²⁰¹ Despite the fact that the *BMC/Muniauction* standard for joint infringement was well established prior to the passage of the AIA, Congress did nothing to address this issue in the legislation.²⁰² In fact, Congress actually took modest steps in the AIA to limit so-called "business method" patents, one of the primary beneficiaries of the new rule set forth in *Akamai*.²⁰³ Thus, the *en banc* majority's radical expansion of inducement liability was particularly unjustified given that Congress had opted not to address the prevailing standard for joint infringement in the AIA. As the Linn dissent noted, Congress has previously amended Section 271 on several occasions to prohibit infringing activity that was outside the scope of the existing statutory regime, yet elected not to expand joint

infringement liability under the AIA.²⁰⁴

Given that Congress did not modify the statutory scheme governing infringement, the *Akamai* majority should have left the existing *BMC* standard for joint infringement in place. Indeed, because direct infringement under Section 271(a) is a strict liability offense, there are strong policy concerns supporting a rule requiring that a single party either perform all of the infringing steps itself, or else direct or control the performance of the steps by another. If the law allowed the activities of any two parties to simply be combined to find an infringement—no matter how loosely related the parties may be—then those engaged in otherwise innocent activities would potentially be forced to defend themselves from a patent infringement lawsuit.²⁰⁵ For example, under such a regime anyone using the Internet could unwittingly find themselves subject to joint patent infringement liability if it turns out their interactions with a website constituted part of the unauthorized performance of a patented method.²⁰⁶ This would be true even if the Internet user had no idea that the website was performing the process, let alone any knowledge of the patent-in-suit.²⁰⁷

The existing *BMC* standard for joint direct infringement addressed this concern quite effectively given the constraints of the current statutory framework. In the case of a single actor performing all of the patented steps herself, the application of a strict liability standard under 271(a) is justifiable because the party is aware and in control of all of the infringing actions.²⁰⁸ Meanwhile, knowledge of all of the infringing steps is fairly attributable to a defendant under traditional theories of vicarious liability when it specifically directs or controls another's performance of one or more steps of the patented method. In the absence of such direction or control, however, the imposition of strict patent liability on a party that was unaware of the manner of performance of every step of the patented method would be unjust. Consequently, the *BMC* standard for joint infringement fairly balanced the competing policy concerns under the existing statutory regime.²⁰⁹

Admittedly, the *Muniauction* court may have gone one step too far by effectively holding that a defendant would not be liable for joint infringement even if it provided instructions to its customers directing them to complete one or more steps of a patented process,²¹⁰ thereby increasing the potential for parties to deliberately evade vicarious liability under Section 271(a) by coordinating their infringing activities at arms-length. While patentees could often avoid this concern through better claim drafting—focusing their patent claims on the unitary actions of a single party²¹¹—many scholars nevertheless have argued that additional protections were warranted.²¹² Therefore, the *Akamai* court may have been justified in overturning the overly restrictive view of the law espoused in *Muniauction*, thus reinstating the broader standard provided by *BMC*. However, to the extent that the *Akamai* majority believed that *BMC* also provided inadequate protection to patentees, then it should have urged Congress to amend the law, not distort its long-standing interpretation of Section 271(b) to address the joint infringement issue itself.

Indeed, Congress is better positioned than the judiciary to balance the competing policy concerns implicated by joint infringement. Had Congress wanted to give patentees additional protection it could have enacted a new subsection 271(j) to prevent parties from intentionally structuring their activities to avoid liability under the Patent Act. For instance, through such a hypothetical subsection, Congress could have imposed liability in cases where two or more parties knowingly and collectively perform each step of a patented process. Such a provision's knowledge requirement would have protected parties engaged in otherwise innocent activities from unwittingly finding themselves strictly liable under 271(a) for joint infringement, while nevertheless preventing parties from intentionally structuring their activities to avoid infringement liability.

Therefore, the *Akamai* majority's reformulation of the law of inducement under Section 271(b) was unwarranted. Not only was the decision flawed as a matter of statutory interpretation, but it was also at odds with the relevant legislative history and a more recent Congress' apparent intent. Given that the *BMC* standard adequately addressed the relevant policy concerns under the existing statutory regime, and that Congress was better suited to adjust the law as necessary to address joint infringement, the *en banc* majority should have simply left the traditional inducement standard in place.

B. The Implications of *Akamai*

Despite these criticisms, the new *Akamai* standard for inducement will have significant implications for the litigation of method patents. As an initial matter, *Akamai* will likely substantially reduce patentees' reliance on joint direct infringement claims under Section 271(a). Because the *en banc* majority left the existing *BMC/Muniauction* standard for joint direct infringement in place, future patentees hoping to pursue such a claim will still have to prove that a single party directed or controlled the infringement of every step of the patented method.²¹³ Given that lower courts have interpreted *Muniauction* to require proof of either an agency-based relationship or an explicit contractual obligation to perform,²¹⁴ many patentees will thus continue to struggle to win joint infringement cases under 271(a) in the future.

Consequently, in the future patent-holders will likely increasingly rely on theories of inducement under Section 271(b) to enforce their method patents against joint infringers. Following *Akamai*, patentees can forgo the need to develop evidence showing that one party directed or controlled another's performance of the patented steps and instead simply assert that the inducer had knowledge of the patent and encouraged another party to perform one or more of its elements.²¹⁵ In many cases, *Akamai* will thus provide patentees with a much easier path to enforcing their method patents against multiple parties. While pursuing an inducement claim will require patentees to establish that the inducer had knowledge of the patent,²¹⁶ plaintiffs

will nevertheless be able to prevail in cases featuring a much more tenuous relationship between the joint infringers than would be permitted in a direct infringement case. Thus, *Akamai* ironically flips a concern previously expressed by both Professor Lemley and the *BMC* panel on its head; while Professor Lemley and the earlier court feared that expanding direct infringement liability to encompass all joint infringement claims would render the indirect liability provisions of the Patent Act largely superfluous,²¹⁷ the *en banc* majority has instead enlarged inducement liability to the point where it threatens to render Section 271(a) irrelevant in joint infringement cases.

As a result, the *Akamai* decision gives new life to many method patents that were facing uncertain futures in light of the *BMC* and *Muniauction* precedents. In particular, a number of the most-poorly drafted business method patents—i.e., those either implicitly or explicitly requiring the activities of two or more parties to be infringed—will now be enforceable under the new standard for inducement. This raises important policy issues, as business method patents have increasingly been criticized for “unduly appropriating technology that had been previously practiced or as lacking innovative merit.”²¹⁸ Indeed, as noted above, Congress recently implemented measures to curb some business method patents in the AIA.²¹⁹ Consequently, patentees—including many so-called “patent trolls,” or non-practicing entities—will increasingly rely on *Akamai* to extract jury verdicts or favorable settlement terms from business method patents that would not have been enforceable under the *BMC/Muniauction* standard.

While reliance on inducement liability will thus surely increase following *Akamai*, the CAFC’s new standard nevertheless raises some potential strategic issues that must be considered by patentees hoping to take advantage of the new decision. Specifically, whereas direct infringement under 271(a) is a strict liability offense, a party must have knowledge of the asserted patent in order to be liable for inducement.²²⁰ Patentees typically establish this knowledge by sending a notice letter to the alleged infringer alerting it to the existence of the patent-in-suit in advance of a lawsuit.²²¹ Should a patentee assert an inducement claim against an alleged joint infringer, it will thus be forced to confront the issue of when to notify the defendant of its patent(s). Recently, some patent-holders have been increasingly reluctant to provide significant advanced notice of their patents to infringers for fear of triggering a preemptive declaratory judgment action. Following the U.S. Supreme Court’s 2007 opinion in *MedImmune*,²²² as well as the Federal Circuit’s subsequent decisions in *SanDisk* and *Teva*,²²³ simply sending a notice letter asserting your patent rights will usually give the recipient sufficient standing to file a declaratory judgment case challenging the infringement and validity of the patent-in-suit.²²⁴ Thus, by attempting to establish the requisite knowledge to support an inducement case, a patentee risks letting the intended target of its lawsuit decide whether to preemptively file its own case and, if so, the jurisdiction in which the suit will be heard.

Consequently, patent-holders will have to weigh the risk of providing advanced notice to the joint infringers with the potential benefits of an inducement case. In some cases, the patentee may decide that it prefers to retain control over the timing and location of its suit, and therefore forgo notifying the alleged infringer ahead of the initiation of the lawsuit. These patent-holders could instead rely on a *BMC/Muniauction* theory of joint direct infringement under Section 271(a) to capture any past infringement, while seeking damages on a going-forward basis for any continued inducement occurring after the defendants were notified of the asserted patent(s) through the filing of the lawsuit. In other cases, however, a patentee may decide that the benefits of providing advance notice outweigh the risks, thereby ensuring that inducement liability begins to accrue as soon as possible. This is most likely to be the case when a traditional joint direct infringement claim is impractical due to a clear lack of direction or control, or in cases where the patentee is not worried about litigating a declaratory judgment action in the accused infringer’s preferred forum.

Meanwhile, although the *Akamai* majority presumably hoped its new inducement standard would help close the alleged statutory “loophole” created by *BMC* and *Muniauction*—thus preventing parties from jointly infringing patents at arms-length—its decision can still potentially be circumvented with relative ease by would-be joint infringers. Indeed, although *Akamai* expanded the liability for joint infringement performed by multiple parties in the United States, a potential extraterritorial loophole can still be exploited to avoid liability. Following the CAFC’s 2005 decision in *NTP v. RIM*, direct infringement of a method patent requires that each of the patented steps be performed in the United States.²²⁵ Therefore, should any one of the steps of a patented method be performed abroad, Section 271(a) will not have been violated, and the patentee will be unable to prevail on a case of direct infringement.

Because direct infringement under 271(a) had always been a prerequisite for inducement liability, this extraterritorial limitation was traditionally read into Section 271(b) as well.²²⁶ Although one scholar has speculated that the *Akamai* court’s decoupling of inducement from direct infringement liability may also necessitate a reconsideration of the territorial limits of 271(b),²²⁷ such an outcome appears unlikely. Indeed, just because a bare majority of a fractured Federal Circuit was willing to change its formulation of the requisite direct infringement necessary for purposes of inducement does not mean that a majority of the court would also agree to revisit its limitation on the extraterritorial reach of method patents. Consequently, the CAFC will likely continue to apply the existing territorial restrictions in future inducement cases involving method patents.

As a result, would-be joint infringers will likely be able to evade inducement liability under *Akamai* and *NTP* simply by performing one or more steps of the patented method abroad. While the exploitation of this loophole may not be feasible in some cases, many joint infringers will be able to easily structure their operations to circumvent U.S. patent law simply by utilizing an offshore server to perform one or more steps of a patented method via the Internet. Thus, although the CAFC attempted to close an alleged joint infringement loophole in *Akamai*, the decision is nevertheless unlikely to prevent nefarious

parties from evading patent infringement liability.

CONCLUSION

This article has critically evaluated the *en banc* Federal Circuit's recent joint decision in *Akamai Technologies, Inc. v. Limelight Networks, Inc.* and *McKesson Technologies, Inc. v. Epic Systems Corp.* In particular, the article first discussed the evolution of joint patent infringement, and second reviewed the *Akamai* and *McKesson* litigation, before finally critically analyzing the CAFC's opinion and appraising its likely implications. Even though a bare majority of the Federal Circuit was willing to expand inducement liability in order to address cases where no single party acting alone has infringed the asserted patent, this article has concluded that the *Akamai* decision was unjustified as a matter of statutory interpretation, legislative history, and policy. Moreover, although *Akamai* provides method patent holders with a potentially powerful new weapon to combat joint infringement, the decision can nevertheless be circumvented with relative ease by anyone intent on avoiding infringement liability. As a result, the *Akamai* court should have left the existing law of inducement intact and deferred to Congress to address the joint infringement issue.

FOOTNOTES

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¹ See Alice Juwon Ahn, Note: *Finding Vicarious Liability in U.S. Patent Law: The "Control or Direction" Standard for Joint Infringement*, 24 BERKELEY TECH. L.J. 149, 149 (2009) ("The Patent Act is designed to address infringement claims that are primarily based on the actions of a single actor."); Mark A. Lemley, et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 256 (2005) (noting that patent law is "designed to deal with the circumstance of unified infringement by a single actor"). See also Ben Morgan, *Joint Infringement and the Impact of BMC Resources, Inc. v. Paymentech, L.P.*, 12 SMU SCI. & TECH. L. REV. 173, 198 (2009) ("Section 271 of the Patent Act functions well when a single defendant performs every element of a patented claim.").

² See *Akamai Tech., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1307 (Fed. Cir. 2012) ("This court has held that for a party to be liable for direct patent infringement under 35 U.S.C. § 271(a), that party must commit all the acts necessary to infringe the patent, either personally or vicariously."). Some commentators have dubbed this requirement the "single entity rule." See, e.g., W. Keith Robinson, *No "Direction" Home: An Alternative Approach to Joint Infringement*, 62 AM. U. L. REV. 59, 63 (2012) (noting that this rule "is known as the 'single entity' doctrine").

³ Specifically, 35 U.S.C. § 271(b) governs induced infringement, while 35 U.S.C. § 271(c) governs contributory infringement. See Lynda J. Oswald, *International Issues in Secondary Liability for Intellectual Property Rights Infringement*, 45 AM. BUS. L.J. 247, 257 (2008) (noting same). For more on induced and contributory infringement, see Part I.B *infra*.

⁴ See Robinson, *supra* note 2, at 65 (declaring that "it is the unenviable job of the Federal Circuit to apply laws crafted in consideration of 1950's technology to the cutting edge innovations of today").

⁵ See Nicole D. Galli & Edward Gecovich, *Cloud Computing and the Doctrine of Joint Infringement: 'Current Impact' and Future Possibilities*, 11 J. MARSHALL REV. INTELL. PROP. L. 673, 675 (2012) (stating that joint infringement by multiple actors is a significant issue in cases of patents covering "cloud computing systems" in which "multiple parties interact[] with multiple components of a system in a distributed environment"); Stacie L. Greskowiak, Note: *Joint Infringement After BMC: The Demise of Process Patents*, 41 LOY. U. CHI. L.J. 351, 402 (2010) (declaring that the use "of multiple entities to carry out a process" is common in "the technology, communication, and medical industries"); Dolly Wu, *Joint Infringement and Internet Software Patents: An Uncertain Future?*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 439, 441 (2009) (noting that the issue of joint infringement has significant implications for "network and communication patents").

⁶ See Part I.C *infra*.

⁷ See *infra* notes 85-87 and accompany text. No indirect infringement liability would arise when two parties collectively infringed a patent at arms length under the traditional approach, because there was no underlying direct infringement upon which to base a claim of inducement or contributory infringement.

⁸ See Lemley, et al., *supra* note 1, at 261 ("While these decisions seem unfair at first glance because they create a right without a remedy, they in fact serve an important policy purpose. Direct infringement is a strict-liability offense, but it is limited to actually performing all the steps of a patented process.").

⁹ *Akamai Tech., Inc. v. Mass. Inst. Tech.*, 419 Fed.Appx. 989, 989 (Fed. Cir. 2011).

¹⁰ *Akamai Tech., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1318 (Fed. Cir. 2012).

¹¹ See Robert E. Thomas & Larry A. DiMatteo, *Harmonizing the International Law of Business Method and Software Patents: Following Europe's Lead*, 16 TEX. INTELL. PROP. L.J. 1, 8-9 (2007) (discussing the criticisms of business method patents). See also Wade M. Chumney, et al., *Patents Gone Wild: An Ethical Examination and Legal Analysis of Tax-Related and Tax Strategy Patents*, 46 AM. BUS. L.J. 343 (2009) (generally criticizing the development of tax-related business method patents).

¹² See *infra* notes 225-227 and accompanying text.

¹³ See, e.g., Jason S. Dinges, Note, *Extraterritorial Patent Infringement Liability After NTP, Inc. v. Research in Motion, Ltd.*, 32 J. CORP. L. 217, 225 n.73 (2006) (noting that “method claims involve a ‘series of acts performed in order to produce a given result’”) (quoting ROGER E. SCHECHTER & JOHN R. THOMAS, *INTELLECTUAL PROPERTY: THE LAW OF COPYRIGHTS, PATENTS, AND TRADEMARKS* 292-93 (2003)); Paul E. Schaafsma, *A Gathering Storm in the Financial Industry*, 9 STAN. J.L. BUS. & FIN. 176, 194 n.107 (2004) (“A method claim defines the invention by a series of steps to be followed in performing a process. This type of claim is contrasted with an apparatus claim, which defines the invention as a structure.”);

¹⁴ See Lemley, et al., *supra* note 1, at 275 (stating that “multiple-entity infringement ... arise[s] primarily with respect to method claims”).

¹⁵ See *Akamai Tech., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1307 (Fed. Cir. 2012) (“This court has held that for a party to be liable for direct patent infringement under 35 U.S.C. § 271(a), that party must commit all the acts necessary to infringe the patent, either personally or vicariously.”).

¹⁶ See, e.g., Lemley, et al., *supra* note 1, at 275 (noting same).

¹⁷ *Centillion Data Sys. v. Qwest Commc’n Int’l, Inc.*, 631 F.3d 1279, 1284 (Fed. Cir. 2011) (“We hold that to ‘use’ a system for purposes of infringement, a party must put the invention into service, i.e., control the system as a whole and obtain benefit from it.”). See also Galli & Gecovich, *supra* note 5, 683-84 (discussing *Centillion*).

¹⁸ See Part I.D.3 *infra*.

¹⁹ See, e.g., Jason A. Rantanen, *An Objective View of Fault in Patent Infringement*, 60 AM. U. L. REV. 1575, 1594 (2011) (noting that “[t]he 1952 patent act codified numerous common law patent doctrines”); Giles S. Rich, *Infringement Under Section 271 of the Patent Act of 1952*, 21 GEO. WASH. L. REV. 521, 521-22 (1953) (explaining that prior to the Patent Act of 1952, Congress left “it to the judicial branch to settle the question of infringement when requested to do so by patent owners. Under these circumstances the courts evolved their own ... law on infringement, with no legislative guidance.”).

²⁰ See, e.g., *Thomson-Houston Electric Co. v. Ohio Brass Co.*, 80 F. 712, 721 (6th Cir. 1897) (Taft, C.J.) (“An infringement of a patent is a tort analogous to trespass or trespass on the case.”). See also James G. Dilmore, *Actual Knowledge of Direct Patent Infringement is Required for Induced Infringement: Global-Tech Appliances, Inc. v. SEB S.A.*, 50 DUQ. L. REV. 659, 668 (2012) (“Before passage of the Patent Act of 1952, patent infringement existed as a judicially created tort”).

²¹ See Kristin E. Gerdelman, Comment, *Subsequent Performance of Process Steps by Different Entities: Time to Close Another Loophole in U.S. Patent Law*, 53 EMORY L.J. 1987, 1994 (2004) (noting that at common law, “if a patent claim ha[d] multiple elements, there [could] be direct infringement if, and only if, every element was practiced by the accused infringer”).

²² 109 U.S. 408, 420-21 (1883).

²³ *Id.* at 420-21.

²⁴ See Robinson, *supra* note 2, at 94 (discussing the scope of contributory infringement at common law).

²⁵ 29 F.Cas. 74 (C.C.D.Conn. 1871).

²⁶ *Id.* at 79. See also Rich, *supra* note 19, at 527 (discussing *Wallace v. Holmes*).

²⁷ 21 F.Cas. 593, 594 (C.C.D.Mass. 1875).

²⁸ See *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990) (Rich, C.J.) (noting that at common law, contributory infringement liability arose when one “intentionally caused, or aided and abetted, the commission of a tort by another”) (emphasis added). See also Charles W. Adams, *A Brief History of Indirect Liability for Patent Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 369, 373 (2006) (explaining that at common law, “[t]he case law also recognized that proof of direct infringement was required in order to impose liability on a defendant for contributory infringement.”); *Section 271(b) of the Patent Act of 1952: Confusion Codified*, 66 YALE L.J. 132, 138 n.26 (1956) (stating that at common law “a resultant direct infringement” was a “necessary element[.]” in a contributory infringement case).

²⁹ See, e.g. *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 505, 507 (1917) (stating that “three defendant corporations [had been sued] as joint infringers” in a case where the patentee alleged infringement of its patented film projector through one of the defendants’ unauthorized use of the machine to display movies supplied by an unauthorized studio, and where the other defendants either initially purchased and leased the machine in question, or supplied it with the allegedly infringing films); *Amusement Corp. of America v. Mattson*, 138 F.2d 693, 694, 695 fn.1 (5th Cir. 1943) (characterizing the defendants as “co-infringers” and “joint tort feasons” in a case where one defendant operated an allegedly infringing carnival shooting gallery on behalf of the second defendant, a carnival company); *Dean Rubber Mfg. Co. v. Killian*, 106 F.2d 316, 320 (8th Cir. 1939) (stating that two defendants—one a company and the other its director—“jointly and severally, infringed the patent in suit” when the director oversaw the company’s allegedly infringing operation); *Gerosa v. Columbia Metal Stamping & Die Co.*, 8 F.2d 611, 611 (6th Cir. 1925) (noting that the “lower court ... held the Columbia Company liable as a joint or contributing infringer” for furnishing another party with the allegedly infringing device).

³⁰ 284 F. 331, 333 (8th Cir. 1922).

³¹ 143 F.2d 1003 (9th Cir. 1944).

³² *Id.* at 1004.

³³ See RESTATEMENT (SECOND) OF AGENCY § 212 (1958).

³⁴ See, e.g., Scott A. Cromar, Note, *The Location of the Contemplated Sale as the Ultimate Guide in “Offer to Sell” Transnational U.S. Patent Infringement Cases*, 2012 U. ILL. L. REV. 1755, 1759 (2012) (“In 1952, Congress enacted the Patent Act with the intent to codify the common law governing patents.”); Timothy R. Holbrook, *Liability for the “Threat of a Sale”: Assessing Patent Infringement for Offering to Sell an Invention and Implications for the On-Sale Patentability Bar and Other Forms of Infringement*, 43 SANTA CLARA L. REV. 751, 757 (2003) (“Congress intended to codify the common law in the Patent Act.”); Oswald, *supra* note 3, at 256 (“These notions of direct and secondary liability were codified in the Patent Act of 1952, in Section 271.”); Rantanen, *supra* note 19, at 1594 (“The 1952 patent act codified numerous common law patent doctrines, including contributory infringement.”).

³⁵ 35 U.S.C. § 271(a) (2010).

³⁶ See, e.g., Greskowiak, *supra* note 5, at 35-36 (“Direct infringement is a strict liability offense, so the actor’s mental state is irrelevant to liability.”); Ken Hobday, Comment: *The Incredibly Ever-Shrinking Theory of Joint Infringement: Multi-Actor Method Claims*, 38 CAP. U. L. REV. 137, 145 (2009) (“Direct infringement of a patent is a strict liability offense involving an objective assessment of whether a party infringes one or more claims of a patent.”); Lynda J. Oswald, *The Intent Element of “Inducement to Infringe” Under Patent Law: Reflections on Grokster*, 13 MICH. TELECOMM. & TECH. L. REV. 225, 229 (2006) (“Thus, liability for direct infringement of a patent is, in effect, a strict liability provision.”).

³⁷ See, e.g., *Warner-Jenkinson v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997) (“the accused product or process contain elements identical or equivalent to each claimed element of the patented invention”).

³⁸ See Brian J. McNamara, *Patent Protection of Computer Hardware and Software*, 12 WAKE FOREST J. BUS. & INTELL. PROP. L. 137, 185 (2012) (“Under the ‘all elements rule’ patent infringement does not occur unless all the elements of the claim are found in the infringing product or method.”); Robinson, *supra* note 2, at 75 (noting that the “‘all elements’ rule states that the patented invention is defined by each and every limitation of the claim being asserted”).

³⁹ See Dilmore, *supra* note 20, at 668-69 (“Two distinct types of indirect infringement are delineated in the Patent Act: contributory infringement and inducing infringement, both of which arose from the common law tort of ‘contributory infringement.’”); Ashley M. Fry, Note, *Corporate-Participant Liability for Direct Patent Infringement: A Look to Copyright Law’s Vicarious Liability Analysis* 2012 COLUM. BUS. L. REV. 284, 290 (2012) (“The Patent Act of 1952 ... divided the common law concept of ‘contributory infringement’ into contributory infringement in § 271(c) and active inducement in § 271(b).”).

⁴⁰ 35 U.S.C. § 271(b) (2010).

⁴¹ See Long Truong, *After BMC Resources, Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, 103 NW. U. L. REV. 1897, 1905 (2009) (discussing requirements).

⁴² 35 U.S.C. § 271(c) (2010).

⁴³ See Rantanen, *supra* note 19, at 1584 (“Contributory infringement involves the selling of a component of a patented machine or process ... constituting a material part of the invention ... but not including staple articles of commerce In addition, the defendant must know that the component is especially made or adapted for use in infringing a patent ...”).

⁴⁴ See, e.g., Mark A. Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225, 238 n.67 (2005) (“*Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 377 U.S. 476 (1964), requires knowledge of the patent for contributory infringement”).

⁴⁵ 187 U.S.P.Q. 323, 333 (N.D. Ill. 1974).

⁴⁶ 367 F.Supp. 207, 253 (D. Conn. 1973). The patent-in-suit in the *Grace* case claimed a method for preparing a hydrocarbon catalyst necessary for the conversion of oil into gasoline. *Id.* at 211-12. See also Truong, *supra* note 41, at 1908-09 (discussing case).

⁴⁷ *W.R. Grace & Co.*, 367 F.Supp. at 253.

⁴⁸ 236 F.Supp.2d 912, 914-15 (N.D. Ill. 2002). See also *Mobil Oil Corp. v. Filtrol Corp.*, 501 F.2d 282, 291-92 (9th Cir. 1974) (“question[ing] whether a method claim can be infringed when two separate entities perform different operations and neither has control of the other’s activities”).

⁴⁹ See *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F.Supp.2d 323, 349 (D. Del. 2002) (stating that “if two or more entities perform different steps of the method, those entities must have some connection to each other”). See also *Hill v. Amazon.com, Inc.*, No. 02-CV-186, 2006 WL 151911 at *2 (E.D. Tex. Jan. 19, 2006) (ruling that “a showing of ‘agency’ or ‘working in concert’ is not necessarily required” in joint infringement cases, so long as there was some direction exchanged by the parties).

⁵⁰ No. 02-C-2855, 2003 WL 1989640 at *2 (N.D. Ill. April 30, 2003).

⁵¹ No. 97-20010, 1999 WL 111788 at *6 (N.D. Cal. Feb. 24, 1999). The patent at issue in *Faroudja* related to a process for converting film to television signals. See Ahn, *supra* note 1, at 154-56 (discussing case).

⁵² 424 F.3d 1293 (Fed. Cir. 2005).

⁵³ *Id.* at 1297.

⁵⁴ *Id.* at 1311.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ 442 F.3d 1331 (Fed. Cir. 2006).

⁵⁸ *Id.* at 1334.

⁵⁹ Specifically, the CAFC reversed after finding that “no reasonable jury could find infringement, on the correct claim construction.” *Id.* at 1343.

⁶⁰ *Id.* at 1344-45.

⁶¹ *Id.* at 1345.

⁶² 498 F.3d 1373 (Fed. Cir. 2007).

⁶³ *Id.* at 1375.

⁶⁴ *Id.* at 1377.

⁶⁵ *BMC Resources, Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289 at *6 (N.D. Tex. Feb. 9, 2006).

⁶⁶ *Id.* at *7.

⁶⁷ *BMC Resources*, 498 F.3d at 1375.

⁶⁸ *Id.* at 1380.

⁶⁹ *Id.* at 1379.

⁷⁰ *Id.* at 1380.

⁷¹ *Id.* at 1379.

⁷² *Id.*

⁷³ *Id.* at 1381.

⁷⁴ See Lemley, et al., *supra* note 1, at 262 (expressing same policy concern).

⁷⁵ *BMC Resources*, 498 F.3d at 1381.

⁷⁶ *Id.* (citing Lemley, et al., *supra* note 1, at 272-75). For more on the claim drafting argument, see *infra* note 92 and accompanying text.

The CAFC also disregarded the contrary language in the *On Demand* case from the year before, in which the court had approved a trial court jury instruction allowing a finding of joint infringement any time two parties worked together to infringe a patent. Specifically, the Federal Circuit noted in *BMC* that the prior endorsement came “without any analysis of the issues presented relating to divided infringement,” effectively dismissing the language as dicta due to the fact that the opinion “primarily addressed the claim construction issue that governed the outcome of that case.” *Id.* at 1380.

⁷⁷ *Id.* at 1381.

⁷⁸ *Id.* at 1382.

⁷⁹ 532 F.3d 1318 (Fed. Cir. 2008).

⁸⁰ *Id.* at 1321.

⁸¹ *Id.* at 1328-29.

⁸² *Id.* at 1329.

⁸³ *Id.* at 1330.

⁸⁴ *Id.*

⁸⁵ See, e.g., Ahn, *supra* note 1, at 170 (“The flawed reasoning by the panel in *Muniauction* lets masterminds escape liability.”); Greskowiak, *supra* note 5, at 2 (characterizing *BMC* as “a failure on the part of the Federal Circuit to protect and enforce the rights of patent owners”); Damon Gupta, *Virtually Unifringible: Valid Patents Lacking Protection Under the Single Entity Rule*, 94 J. PAT. & TRADEMARK OFF. SOC’Y 61, 69-70 (2012) (arguing that “requiring a contractual obligation or an agency relationship is too stringent”); Wu, *supra* note 5, at 441 (finding that *Muniauction* “creates a catch-22 situation because it is unlikely for vicarious liability relationships to exist across the Internet”).

⁸⁶ Truong, *supra* note 41, at 2-3.

⁸⁷ See Ahn, *supra* note 1, at 171 (asserting that “many thousands of patents may become worthless under the stringent ‘control or direction’ standard set forth in the *Muniauction* decision”); Wu, *supra* note 5, at 441 (stating that *Muniauction* leaves “many Internet software ... network and communication patents ... unenforceable”).

⁸⁸ Lemley, et al., *supra* note 1, at 282.

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.* at 261.

⁹² *Id.* at 272 (arguing that “[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”).

⁹³ See Wu, *supra* note 5, at 461-64 (stating that “[a] patentee may try to revise the joint method claims to unitary claims in a reissue.”). For more on patent reissue procedure generally, see Laura A. Bauer, *Modified Reissue Practice*, 8 FED. CIRCUIT B.J. 193 (1999).

⁹⁴ See Wu, *supra* note 5, at 462-64 (noting same).

⁹⁵ See Robinson, *supra* note 2, at 81-82 (“In evaluating the relationships between the parties involved, most courts found that the factual situations with which they were presented did not satisfy the control or direction standard.”).

⁹⁶ See Ahn, *supra* note 1, at 165-66 (“Post-Muniauction cases seem to require a contractual relationship between the alleged infringer and a third party who completes the patented steps in order to find the requisite direction or control necessary for a showing of direct infringement.”).

⁹⁷ 586 F.Supp.2d 1331, 1333 (S.D. Fla. 2008).

⁹⁸ *Id.* at 1335.

⁹⁹ *Id.*

¹⁰⁰ 583 F.Supp.2d 811, 834 (S.D. Tex. 2008).

¹⁰¹ *Id.* See also *Advanced Software Design Corp., v. Fiserv, Inc.*, 650 F.Supp.2d 924, 930 (E.D. Mo. 2009) (rejecting a joint infringement case where the defendant merely sold software to customers enabling them to infringe the patent-in-suit); *Desenberg v. Google, Inc.*, No. 09-Civ-10121, 2009 WL 2337122 at *23-24 (S.D.N.Y. July 30, 2009) (dismissing a suit where the defendant did not control its website users’ infringing conduct).

¹⁰² 614 F.3d 1367 (Fed. Cir. 2010).

¹⁰³ *Id.* at 1382-83 (Newman, J., dissenting). See also *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, No. 2:06-CV-381, 2009 WL 943273 at *3-4 (E.D. Tex. April 3, 2009) (granting the defendant judgment as a matter of law on the joint infringement issue).

¹⁰⁴ *Golden Hour*, 614 F.3d at 1367 (Newman, J., dissenting).

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *On Demand Mach. Corp. v. Ingram Indus., Inc.* 442 F.3d 1331, 1345 (Fed. Cir. 2006).

¹⁰⁸ *Akamai Tech., Inc. v. Limelight Networks, Inc.*, 614 F.Supp.2d 90, 96 (D.Mass. 2009).

¹⁰⁹ *Akamai Tech., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1315-16 (Fed. Cir. 2010).

¹¹⁰ *Akamai*, 614 F.Supp.2d at 96.

¹¹¹ *Akamai*, 629 F.3d at 1316.

¹¹² *Id.*

¹¹³ *Akamai*, 614 F.Supp.2d at 116.

¹¹⁴ *Id.* at 121.

¹¹⁵ *Id.* at 122-23.

¹¹⁶ *Akamai*, 629 F.3d 1311.

¹¹⁷ *Id.* at 1319.

¹¹⁸ *Id.* at 1320.

¹¹⁹ *Id.* at 1320-21 (noting that Limelight’s standard customer agreement did “not *obligate* [the company’s] customers to perform any of the method steps”) (emphasis in original).

¹²⁰ *McKesson Info. Solutions LLC v. Epic Sys. Corp.*, No. 1:06-CV-2965-JTC, 2009 WL 2915778 at *1-2 (N.D. Ga. Sept. 8, 2009).

¹²¹ *Id.* at *1-2.

¹²² *Id.* at *2.

¹²³ The undisputed evidence in the case showed that no single party performed each step of the asserted method claim, with the physicians’ patients instead completing the first patented step. Therefore, McKesson was forced to rely on a theory of joint infringement between the doctors and patients in order to establish the requisite underlying proof of direct infringement necessary to prevail on its inducement claim.

¹²⁴ *Id.* at *6.

¹²⁵ *Id.*

¹²⁶ *McKesson Tech., Inc. v. Epic Sys. Corp.*, Case No. 2010-1291, at 7 (Fed. Cir. 2011), *available at* <http://law.justia.com/cases/federal/appellate-courts/cafc/10-1291/2010-1291-order-2011-05-26.html>.

¹²⁷ *Id.* at 8.

¹²⁸ *Golden Hour Data Systems, Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1381 (Fed. Cir. 2010) (Newman, J., dissenting).

¹²⁹ *McKesson Tech., Inc. v. Epic Sys. Corp.*, Case No. 2010-1291, at 2 (Fed. Cir. 2011) (Newman, J., dissenting), *available at* <http://law.justia.com/cases/federal/appellate-courts/cafc/10-1291/2010-1291-order-2011-05-26.html>.

¹³⁰ *Id.* at 9-10.

¹³¹ *Id.* at 11-12.

¹³² *McKesson Tech., Inc. v. Epic Sys. Corp.*, Case No. 2010-1291, at 2 (Fed. Cir. 2011) (Bryson, J., concurring), *available at* <http://law.justia.com/cases/federal/appellate-courts/cafc/10-1291/2010-1291-order-2011-05-26.html>.

¹³³ *Akamai Tech., Inc. v. Mass. Inst. Tech.*, 419 Fed.Appx. 989 (Fed. Cir. 2011); *McKesson Tech. Inc. v. Epic Sys. Corp.*, 463 Fed.Appx. 906 (Fed. Cir. 2011).

¹³⁴ *Akamai Tech.*, 419 Fed.Appx. at 989.

¹³⁵ *McKesson Tech.*, 463 Fed.Appx. at 907.

¹³⁶ See, e.g., Mark D. Janis & Timothy R. Holbrook, *Patent Law’s Audience*, 97 MINN. L. REV. 72, 118 (2012) (stating

that “[m]embers of the patent community expected the court to address the single-entity rule” under 271(a)).

¹³⁷ Akamai Tech., Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2011).

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.* at 1308.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* at 1308-09.

¹⁴⁶ *Id.* at 1306.

¹⁴⁷ *Id.* at 1318.

¹⁴⁸ *Id.* at 1306.

¹⁴⁹ *Id.* at 1309.

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.* at 1311. The *en banc* majority believed that this quotation from Judge Rich implicitly referenced both contributory infringement and inducement, as was the custom at common law. *Id.*

¹⁵³ *Id.* at 1310.

¹⁵⁴ *Id.*

¹⁵⁵ *Id.* at 1311.

¹⁵⁶ *Id.* (citing 18 U.S.C. §§ 2(a) and 2(b)).

¹⁵⁷ *Id.* at 1312 (citing RESTATEMENT (SECOND) OF TORTS § 877(a) (1979)).

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* at 1318. The defendants in both cases sought U.S. Supreme Court review following the Federal Circuit’s *en banc* decision. Petition for Writ of Certiorari, Limelight Networks, Inc., v. Akamai Tech., Inc., No. 12-786; Petition for Writ of Certiorari, Epic Sys. Corp. v. McKesson Tech., Inc., No. 12-800, 2012 WL 6762616 (Dec. 28, 2012). As these petitions for writs of *certiorari* were being briefed, however, the parties in *McKesson* settled their dispute. Press Release, McKesson Tech., Inc., McKesson and Epic Settle Patent Infringement Litigation (March 4, 2013), available at http://www.mckesson.com/en_us/McKesson.com/About%2BUs/Newsroom/Press%2BReleases%2BArchives/2013/McKesson%2BAnd%2BEpic%2BSettle%2BPatent%2BInfringement%2BLitigation.html. See also Epic Sys. Corp. v. McKesson Tech., Inc., 133 S.Ct. 1520 (2013) (dismissing the petition for writ of *certiorari* in *McKesson*). Meanwhile, the cert petitions in *Akamai* remain pending, with the Supreme Court’s decision whether to grant or deny the petitions expected on June 10, 2013.

¹⁶⁰ See *Akamai*, 692 F.3d at 1307 (“Because the reasoning of our decision today is not predicated on the doctrine of direct infringement, we have no occasion at this time to revisit any of those principles regarding the law of divided infringement as it applies to liability for direct infringement under 35 U.S.C. § 271(a).”).

¹⁶¹ Akamai Tech., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1322 (Fed. Cir. 2011) (Newman, J., dissenting).

¹⁶² *Id.* at 1326.

¹⁶³ *Id.* at 1321.

¹⁶⁴ *Id.* at 1328. Along these same lines, Judge Newman cited a number of precedents requiring an underlying act of direct infringement to give rise to potential inducement liability. *Id.* at 1328-29.

¹⁶⁵ *Id.* at 1327.

¹⁶⁶ *Id.* at 1347 (Linn, J., dissenting).

¹⁶⁷ *Id.* at 1350.

¹⁶⁸ The Linn dissent also dismissed Judge Newman’s notion that the term “whoever” in Section 271(a) justified expansive liability for joint direct infringement, arguing that the plural tense of the word would simply support independent liability for every party who individually infringes the patent. *Id.* at 1348.

¹⁶⁹ *Id.* at 1339 (citing S.Rep. No. 82-1979, at 8 (1952); H.R.Rep. No. 82-1923, at 9 (1952)).

¹⁷⁰ *Akamai*, 692 F.3d at 1340 (Linn, J., dissenting).

¹⁷¹ *Id.* at 1338-39.

¹⁷² *Id.* at 1337.

¹⁷³ *Id.* at 1337, 1342-44.

¹⁷⁴ *Id.* at 1344-45.

¹⁷⁵ *Id.* at 1345-47.

¹⁷⁶ *Id.* at 1314.

¹⁷⁷ *Id.* at 1310-11.

¹⁷⁸ *Id.* at 1338-40 (Linn, J., dissenting) (citing S.Rep. No. 82-1979, at 8 (1952); H.R.Rep. No. 82-1923, at 9 (1952)).

¹⁷⁹ Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 342 (1961). *See also* Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 522 (1972) (reiterating that “[i]nfringement is defined by 35 U.S.C. § 271”).

¹⁸⁰ Although the *Akamai* majority attempted to distinguish these Supreme Court precedents, *see Akamai*, 692 F.3d at 1315-16, its efforts were unpersuasive for the reasons noted in the Linn dissent. *See id.* at 1340 (Linn, J., dissenting).

¹⁸¹ 35 U.S.C. § 271(a) (2010) (emphasis added).

¹⁸² 35 U.S.C. § 271(b) (2010) (emphasis added).

¹⁸³ *Akamai*, 692 F.3d at 1340 (Linn, J., dissenting) (arguing same).

¹⁸⁴ *IBP, Inc. v. Alvarez*, 546 U.S. 21, 34 (2005).

¹⁸⁵ *Clark v. Martinez*, 543 U.S. 371, 378 (2005).

¹⁸⁶ *Kelly v. Robinson*, 479 U.S. 36, 51 n.13 (1986). *See also Akamai*, 692 F.3d at 1341 (Linn, J., dissenting) (arguing same).

¹⁸⁷ *See id.* at 1310-11 (citing 1948 and 1949 hearing testimony).

¹⁸⁸ *Id.* at 1311.

¹⁸⁹ *Id.*

¹⁹⁰ *See id.* at 1341 (Linn, J., dissenting) (quoting testimony).

¹⁹¹ Rich, *supra* note 19, at 537.

¹⁹² *Id.*

¹⁹³ *Akamai*, 692 F.3d at 1311.

¹⁹⁴ *Id.* at 1344-45 (Linn, J., dissenting).

¹⁹⁵ *See id.* at 1311-12 (citing various cases).

¹⁹⁶ *Id.* at 1344 (Linn, J., dissenting).

¹⁹⁷ *Id.* at 1312 (quoting Restatement).

¹⁹⁸ RESTATEMENT (SECOND) TORTS § 877(a) (1979).

¹⁹⁹ *Akamai*, 692 F.3d at 1307.

²⁰⁰ *Warner-Jenkinson v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997) (stating that “the accused product or process [must] contain elements identical or equivalent to each claimed element of the patented invention”).

²⁰¹ Pub. L. No. 112-29, 125 Stat. 284 (2011). *See also* Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIRCUIT B.J. 435, 435-36 (noting that the legislative history for the AIA is “voluminous”); David Orozco, *Administrative Patent Levers*, 117 PENN ST. L. REV. 1, 3 (2012) (stating that the AIA “has been described as the most significant patent reform achieved in 60 years”).

²⁰² *See Akamai*, 692 F.3d at 1343 (Linn, J., dissenting) (noting same).

²⁰³ Under the “Transitional Program for Covered Business Method Patents,” the AIA provides a special new mechanism for accused infringers to challenge the validity of business method patents relating to financial products or services. *See Robinson*, *supra* note 2, at 103 (discussing the provision).

Because many business method patents are susceptible to being divided among multiple infringing parties via the Internet, and therefore had been difficult to enforce under the pre-*Akamai* regime, they will greatly benefit from the loosened standard for joint infringement provided by *Akamai*. *See infra* notes 218-219 and accompanying text.

²⁰⁴ *Akamai*, 692 F.3d at 1337, 1342-44 (Linn, J., dissenting).

²⁰⁵ *See id.* at 1350 (arguing same).

²⁰⁶ Similarly, the manufacturer of a component with many non-infringing uses could find itself subject to liability when one of its customers uses the product to infringe a patented method without the manufacturer’s knowledge.

²⁰⁷ Judge Newman argued in her *Akamai* dissent that these strict liability concerns “do[] not pass the chuckle test,” as courts could apportion damages to only reflect each party’s actual contribution to the infringement, and even entirely forgo “imposing damages on minor participants.” *Akamai*, 692 F.3d at 1331-32 (Newman, J., dissenting). Such concessions may provide little solace to unsuspecting, innocent infringers such as the hypothetical Internet user discussed above, however, as such parties may be forced to incur significant attorneys fees simply to convince a judge that their contribution to an infringement that they knew nothing about was *de minimis*.

²⁰⁸ *See Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1527 (Fed. Cir. 1995) (“[direct i]nfringement is, and should remain, a strict liability offense.”); Soonbok Lee, Note: *Induced Infringement as a Strict Liability Claim: Abolishment of the Specific Intent Requirement*, 4 HASTINGS SCI. & TECH. L.J. 381, 381 (2012) (“The strict liability scheme for direct infringement ensures that a patent holder gains the full economic rewards of their invention, which constitutes a sufficient market-driven incentive for inventors to invest in making new products.”). *But see* Brian Ferrall & Rebekah Punak, *The Complicated Relationship Between Multiple Party Patent Infringement Liability and Common Law Principles*, 13 SEDONA CONF. J. 63, 72 (2012) (questioning the imposition of strict liability for direct infringement)

²⁰⁹ *See Lemley, et al., supra* note 1, at 272-75 (arguing same).

²¹⁰ *See Part I.D.2 supra*

²¹¹ *See supra* note 91 and accompanying text.

²¹² See *supra* note 85 and accompanying text.

²¹³ See *Akamai*, 692 F.3d at 1307 (“Because the reasoning of our decision today is not predicated on the doctrine of direct infringement, we have no occasion at this time to revisit any of those principles regarding the law of divided infringement as it applies to liability for direct infringement under 35 U.S.C. § 271(a).”).

²¹⁴ See Part I.E *supra*.

²¹⁵ See *Akamai*, 692 F.3d at 1318 (summarizing new standard for inducement).

²¹⁶ See *id.*

²¹⁷ Lemley, et al., *supra* note 1, at 261.

²¹⁸ Orozco, *supra* note 201, at 15.

²¹⁹ See *supra* note 203 and accompanying text.

²²⁰ See *Akamai*, 692 F.3d at 1318 (summarizing new standard for inducement).

²²¹ See James W. Soong, *Patent Damage Strategies and the Enterprise License: Constructive Notice, Actual Notice, No Notice*, 2005 DUKE L. & TECH. REV. 2, 17 (2005) (“Receipt by an accused infringer of a properly crafted notice letter can begin the period over which patent damages are recoverable.”).

²²² *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007).

²²³ *Teva Pharm. USA, Inc. v. Novartis Pharm. Corp.*, 482 F.3d 1330 (Fed. Cir. 2007); *SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372 (Fed. Cir. 2007).

²²⁴ See Xuan-Thao Nguyen, *Dynamic Federalism and Patent Law Reform*, 85 IND. L.J. 449, 463 n.92 (2010) (“a case or controversy may exist even when a patent holder puts another party on notice of a patent and identifies a product or activity of the other party that is affected by the patent, even if the patent holder is clearly offering a license to the other party and not threatening patent litigation”).

²²⁵ *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005) (“We therefore hold that a process cannot be used ‘within’ the United States as required by section 271(a) unless each of the steps is performed within this country.”)

²²⁶ See Timothy R. Holbrook, *The Potential Extraterritorial Consequences of Akamai*, 29 EMORY INT’L L. REV. 499, 501 (2013) (explaining that “[b]ecause active inducement before *Akamai* required an act of direct infringement, induced infringement had territorial constraints.”).

²²⁷ *Id.*