INDUCED TO INFRINGE: DIVIDED PATENT INFRINGEMENT IN LIGHT OF THE AKAMAI RULING

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I. INTRODUCTION

Imagine you arrive home one evening to find that your house has been plundered. Your television, computer, jewelry, and even your beloved pet goldfish have all been stolen. Outraged, you contact the local authorities in an attempt to seek justice and protect your rights. A police investigation uncovers not a single “mastermind,” but rather a partnership in crime between three nefarious thieves, all equally complicit in planning and executing the theft. Unfortunately, the investigating officers were all formerly employed by the United States Patent and Trademark Office (USPTO) and possess an insatiable hunger to extend the principles of patent law to their current endeavors. They casually inform you that no one may be held responsible for the theft since no “single entity” carried out all the elements of the plan nor directed and controlled the actions of any of the other conspirators.

This might sound like an episode of CSI gone horribly wrong, but until recently this was precisely what patent holders found when raising claims of infringement for patented methods against joint or divided infringers. The “single-entity” rule, in effect since the Court of Appeals for the Federal Circuit (CAFC) decision in *BMC v. Paymentech* required that a single actor either perform, direct, or control the performance of all the steps of a patented method claim in order to be found liable for infringement.1

In September of 2012, the CAFC was given the opportunity to revisit the single-entity rule in the case of *Akamai v. Limelight*.2 This Note will address the holding of the court in that case, and the ramifications it may have on the law of divided infringement. Part II of this Note will examine the historical underpinnings of the law on divided infringement in patent, the various jurisprudential standards, and the policy reasons for the various stances in this area. Part III of this Note will explore how the *Akamai* case came before the CAFC and will delve into the decision rendered by the Court. Part IV of this Note will argue that current jurisprudence on divided infringement, while addressing some issues, provides either incomplete guidance, or produces unsatisfactory

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outcomes in the areas of comparative liability, remedies, and extra-territorial enforcement of patent rights. Finally, Part V of this note will suggest legislative or jurisprudential methods for tackling the problems of divided infringement.

II. UNDERPINNINGS OF DIVIDED INFRINGEMENT

Prior to 1952, the Federal Patent Act did not define the term infringement. During the enactment of the law, it was posited that the inclusion of a definition was unnecessary because infringement was a natural byproduct of the violation of the exclusive rights that were granted to patent holders under the previous Act. Necessary or not, since 1952, infringement under the Patent Act has been governed by 35 U.S.C. § 271.

Currently, the Patent Act provides for several flavors of infringement that are either expressly or impliedly defined. Section 271(a) defines “direct” infringement, which provides that “whoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.” Sections 271(b) and 271(c) define what is commonly known as “indirect” infringement. Specifically, § 271(b) provides a definition for induced infringement, while § 271(c) provides a definition for contributory infringement.

Congress has also sought to define other modes of infringement, which in many cases expand the ability of patent holders to enforce their rights. These additional forms of infringement include the submission of an application for certain drugs under the Federal Food, Drug, and Cosmetic Act; supplying, within or from the United States, substantial portions of components of a patented invention intended for combination outside of the United States; as well as importing or offering to sell foreign manufactured goods within the United States that were produced through a process patented within the United States.

These additions suggest that Congress appears to have the wherewithal and ability to address problems that arise relating to the enforcement of patent rights as both judicial interpretation of patent laws and technology evolve. This conclusion was pointed out by Judge Linn in his Akamai dissent, and will be discussed further in this Note.

Despite these additions to § 271, and despite several other amendments to the Patent Act since 1952, the text of the Act has remained silent on the issue

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4 H.R. REP. No. 82-1923, at 9 (1952).
6 Id. § 271(a).
7 Id. § 271 (b)–(c).
8 Id. § 271 (e)(2)(A).
9 Id. § 271 (f)(1).
10 Id. § 271 (g).
11 Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1343 (Fed. Cir. 2012) (Linn, J., dissenting) (“Congress knows how to create alternative forms of infringement.”).
12 Most recently the text was amended in 2011 by the America Invents Act. See generally Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (most notably changing priority rules for granting patents from a “first to invent” system to a “first to file”
of direct, divided infringement. While Congress has remained silent on the issue, courts have struggled to deal with the problems of divided infringement since as early as 1842. The solutions to these problems advanced by the CAFC, including the “single entity” and “inducement only” rules, encompass and combine elements from both direct and indirect infringement. As such, in order to understand the framework of these doctrines, one must have a basic understanding of the underlying principles of infringement.

A. Direct Infringement

The Patent Act does not expressly divide “direct” from “indirect” infringement. Regardless, courts have come to interpret § 271(a) of the Patent Act as defining direct infringement. The statutory definition for direct infringement appears relatively straightforward, but interpretations of a statute often hinge on readings of the most basic elements of a statutory phrase. At least part of the battle over direct but divided infringement has been waged over who the “whoever” in § 271(a) is referring to.

The CAFC in BMC interpreted this term to mean that entity which solely performs, directs, or controls all of the elements necessary for infringement under the section. In contrast, Judge Newman’s dissent in Akamai suggests that it is consistent within the US Code to interpret “whoever” to encompass both the singular and the plural. “By statutory canon the word ‘whoever’ embraces the singular and plural. The first statute in the United States Code, 1 U.S.C. § 1, states that . . . ‘words importing the singular include and apply to several persons, parties, or things.’ ” Newman therefore resolved that the plain meaning of the statute allowed multiple parties to be direct infringers, so long as their combined efforts were sufficient to invade the exclusive rights of the patent holder, ultimately concluding that she “need not belabor the quandary of how there can be direct infringement but no direct infringers.”


13 The Patent Act defines two theories of joint liability—induced and contributory liability—but these are considered “indirect” forms of liability. See discussion infra at II.B.


16 BMC Res. Inc. v. Paymentech L.P., 498 F.3d 1373, 1380 (Fed. Cir. 2007) (“Courts faced with a divided infringement theory have also generally refused to find liability where one party did not control or direct each step of the patented process.”) (emphasis added).


18 Id.

19 Id. at 1328.
Direct infringement is generally considered to be a strict liability tort. Liability even extends to infringers who are completely ignorant of the existence of the patent. For a claim of direct infringement, the element of knowledge primarily impacts the amount of damages that may be assessed. A “willful” infringer, one that possessed knowledge of the patent prior to infringing on it, may be assessed up to treble damages, relative to an “innocent” infringer who was unaware of the patent.

Thus, the monopoly established via patent is much stronger than other types of intellectual property because where two inventors independently create the same apparatus or process, only one will be eligible to enjoy patent rights. The doctrine of equivalents further broadens the monopoly of patent by providing patent holders with the ability to curtail the patent rights of other inventors who create similar inventions utilizing different methods or components so long as those inventions “perform[ ] substantially the same function in substantially the same way to obtain the same result” as the patent holder’s invention.

There are several reasons why patent law endows an exclusive rights holder with the ability to bar independent creation and hold an innocent infringer strictly liable. One reason is that, historically, patent rights have been viewed through the lens of traditional property rights. In fact, as one writer put it,
“[T]respass to land is surely the most analogous tort to patent infringement . . . it is no defense to a trespass claim that the defendant did not realize that someone else possessed the land in question. And like a patent claim, the remedy for trespass could be actual damages or . . . a payment of rent for the period of occupation.”

Though patent rights might properly be considered property rights with regard to certain aspects of enforcement, there are a number of reasons to think that the analogy to trespass of land, while sometimes close in aspects of enforcement, is difficult to maintain in terms of the actual contours of the rights involved. Unlike trespass upon a typical piece of land, a classic case of patent infringement may bring to light uncertainties about the very existence of the patent rights (the validity of the patent), their duration (the term of the patent), and their boundaries (the proper boundaries of the patent claims).

Nonetheless, there are also policy reasons beyond the analogy to property rights that underscore the choice of making direct infringement of patent a strict liability offense. The very purpose of the patent law is “[t]o promote the [p]rogress of [s]cience . . . by securing for limited [t]imes to . . . [i]nventors the exclusive [r]ight to their respective . . . [d]iscoveries.” By making direct patent infringers strictly liable, the exclusivity of an inventor’s creation is heightened, theoretically creating a stronger incentive for inventors to discover and publish new technologies, benefitting society as a whole.

1. Direct Infringement of Method Patents

The question of whether direct infringement has occurred is comparatively clear cut where the patent at issue is one for a product or apparatus. In such a case, the party who completes the product, by installing the final part or assembling the product, directly infringes the patent. Thus, the very presence of the protected device or apparatus within the territorial limits of the patent, and without the patent owner’s consent, is conclusive proof of the existence of a

27 FERRALL ET AL., supra note 14, at 11.
28 Both patent and property rights provide exclusionary privileges to rights holders. Just as a property owner has the right to exclude others from his land, a patent holder has the right to exclude others from his invention. 5 DONALD S. CHISUM, CHISUM ON PATENTS: A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY AND INFRINGEMENT § 16.02(1)(a) (2012) (explaining that patent only grants a negative right, the right to exclude).
29 See id.
30 FERRALL ET AL., supra note 14, at 11–12. Admittedly, there can be uncertainty about the proper boundaries of a piece of property, but the relative degree of uncertainty as to the boundaries of a typical patent claim can be exponentially higher because of its more abstract nature.
32 See Mark A. Lemley, Should Patent Infringement Require Proof of Copying?, 105 MICH. L. REV. 1525, 1529 (2007) (arguing that in cases where the barrier to invention is high cost, an independent creation defense would discourage research in comparison to a pure strict liability regime); But see Samson Vermont, Independent Invention as a Defense to Patent Infringement, 105 MICH. L. REV. 475 (2006) (concluding that an independent invention defense would create societal benefits, especially where an invention is likely to be discovered by multiple inventors).
33 Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1316 (Fed. Cir. 2012); cf. 5 CHISUM, supra note 28, at § 16.02(3)(b) (noting that precedent has held that “a manufacturer escapes liability as a direct infringer if the accused device needs any substantial assembly or adjustment in order to create an operable device meeting the patent claims”).
direct infringer. In fact, a typical infringement claim involving a patented product or apparatus could easily implicate three or more direct infringers: the party who manufactured the product, the party who distributed or sold the product, and the end user of the product.

The question of infringement becomes murkier when the patent is a method patent. A method patent, also referred to as a process patent, is a patent that consists of a series of steps intended to bring about a certain result. Traditional process patents often detail steps to convert raw materials into finished products. Since it is the actual process rather than the end product that is protected by the patent, the existence of the result is not dispositive in determining whether infringement has occurred.

For example, an inventor might obtain a patent for the process of transforming tree sap into syrup. The inventor might not have the exclusive right to produce syrup, having instead only a monopoly over a particular series of steps by which syrup may be manufactured. As syrup can be manufactured in different ways, the very existence of a competing bottle of syrup is not conclusive evidence of infringement. In order for the competitor to be found liable for infringement, the patent holder must prove that while manufacturing the syrup, the competitor performed each and every step of the process (or its equivalent), in the order defined by the patent. Thus, under the definition of § 271(a), the only applicable mode of infringement is to “use” the process. Selling or distributing instructions for the method would not be a basis for direct infringement.

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34 Akamai Techs., Inc., 692 F.3d at 1316 (“For product claims, whenever the product is made, used, or sold, there is always a direct infringer.”).
35 35 U.S.C. § 271(a) (2012) (“Whoever . . . makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.”).
36 Gottschalk v. Benson, 409 U.S. 63, 70 (1972) (“A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.”).
38 See Merrill v. Yeomans, 94 U.S. 568, 574 (1876) (holding that there was no infringement by defendant who manufactured a nearly identical oil, because plaintiff held only a patent on the process). Claiming a patent on a process does not provide protection for the result of the process because the claims of the patent must be identified with enough specificity to provide a clear warning as to what constitutes infringement. See 3 DONALD S. CHISUM, CHISUM ON PATENTS: A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY AND INFRINGEMENT § 8.03 (2010).
39 It is possible that the inventor would have a patent for both the process and the end product, but it is also equally possible that the inventor has no such patent, and the product can be created in a number of different ways.
40 See Merrill, 94 U.S. at 574.
42 See Ricoh Co. v. Quanta Computer Inc., 550 F.3d 1325, 1335 (Fed. Cir. 2008) (“[W]e hold that a party that sells or offers to sell software containing instructions to perform a patented method does not infringe the patent under § 271(a).”). Under the current doctrine of induced infringement, it seems that there may be indirect liability for these actions. See discussion infra II.B.1.
The conditions under which a process is deemed to be infringed are more relevant than ever because of an explosion in patenting processes which do not bring about a change to some physical subject matter, but are instead concerned with procedures that govern commercial transactions, especially via the internet. These patents are most commonly referred to as business-method patents. In many cases these patents speak to the issues of joint infringement because, either out of necessity or efficiency, they require that multiple parties act in concert to complete the patented method, especially in internet applications where often times there is a division of labor between client and server. Unlike with the manufacture of tangible items, where the various parties are likely to have contractual or agency relationships with one another, it is not uncommon that the parties performing a business-method patent have little or no formal relationship.

2. Joint Infringement and the Single-entity rule

When method patents are performed by the combined actions of multiple parties, courts have recognized that sometimes it is appropriate to find one party liable for direct infringement by attributing to that party the actions of others, so that the combination of their actions satisfies the entirety of the patent claim. The extent of the relationship necessary between parties in order for courts to attribute their actions to one another is a critical and evolving aspect of joint infringement doctrine. Currently, courts attribute to the accused infringer the conduct of additional parties only through principles of vicarious liability. A party who does not perform each and every step of a process patent, either directly or vicariously through another, incurs no direct liability.

The cases of BMC Resources v. Paymentech and Muniauction v. Thomson Corporation currently define the contours of the relationship necessary to attrib...
bute activities between parties in joint infringement actions.\textsuperscript{49} In \textit{BMC}, the plaintiff acquired a patent for a method by which consumers could use their debit cards to make payments, without prior registration or the need for a personal identification number (PIN), via a telephone and keypad.\textsuperscript{50} This process worked through the interaction of several participants, including the customer, the debit network, and the financial institution from which the customer’s money was drawn.\textsuperscript{51}

BMC sued Paymentech for direct infringement of their patent when Paymentech began advertising PIN-less bill payment services that were practically identical to their own.\textsuperscript{52} Paymentech moved for summary judgment on the basis that some of the steps in the process were performed by other parties such as the customer or his financial institution.\textsuperscript{53} BMC argued that it was unnecessary for Paymentech to have performed all the steps in order to be found liable for direct infringement because there was a relationship of “participation and combined action” between Paymentech and the various parties.\textsuperscript{54} BMC’s theory of joint liability for direct infringement was based on the tacit approval of a jury instruction in another CAFC case, \textit{On Demand Machine Corporation v. Ingram Industries}.\textsuperscript{55} In that case, the jury instruction provided that 

\begin{quote}
[i]t 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.\textsuperscript{56}
\end{quote}

The court found BMC’s reliance on \textit{On Demand} misplaced because the main issue in the \textit{On Demand} case was claim construction, rather than the doctrine of joint infringement.\textsuperscript{57} The court concluded that \textit{On Demand} did not set precedent in this area of law, noting that it was “unlikely the [\textit{On Demand}] Court intended to make a major change in . . . jurisprudence . . . that was not even directly necessary to its decision in the case.”\textsuperscript{58}

Rather than adopting the standard of participation and combined action, the court found that the conduct of the various parties could only be attributed to Paymentech through principles of vicarious liability, which required a single “mastermind” to have directed or controlled their actions. Since the relationship between Paymentech and the other parties to the transaction was inadequate to demonstrate this level of direction or control, Paymentech could not be liable for direct infringement.\textsuperscript{59} This holding was termed the “single-entity rule.”\textsuperscript{60}

\textsuperscript{49} \textit{Id.} at 1378; \textit{Muniauction, Inc.}, 532 F.3d at 1328.
\textsuperscript{50} \textit{BMC Res., Inc.}, 498 F.3d at 1375.
\textsuperscript{51} \textit{Id.}
\textsuperscript{52} \textit{Id.} at 1375–76.
\textsuperscript{53} \textit{Id.} at 1375–78.
\textsuperscript{54} \textit{Id.} at 1379–80.
\textsuperscript{55} \textit{Id.}
\textsuperscript{56} On Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1344–45 (Fed. Cir. 2006).
\textsuperscript{57} \textit{BMC Res., Inc.}, 498 F.3d at 1380.
\textsuperscript{58} \textit{Id.}
\textsuperscript{59} \textit{Id.} at 1379–81.
The CAFC further defined the relationship necessary for a party to exercise direction or control in *Muniauction*. The plaintiff held a patent for a process by which investors would bid on bulk municipal bonds through an internet auction website.\(^{61}\) They filed suit against Thomson, a competing auction company that had modified its own process by which bidders and issuers initially connected to each through the use of Thomson’s proprietary software, to one in which parties could participate through the use of an ordinary internet connection and website.\(^{62}\) The trial court ruled in favor of Muniauction, found Thomson’s infringement willful, and awarded Muniauction approximately $77 million in lost profits.\(^{63}\)

On appeal, the CAFC overturned the decision of the trial court.\(^{64}\) It held that several of Muniauction’s independent claims were invalid due to obviousness, and the remaining dependent claims failed because they did not satisfy the vicarious liability test for direction or control.\(^{65}\) Specifically, the court found that the access control that Thomson exercised over bidders who wished to use Thomson’s service was insufficient to satisfy the elements of the *BMC* standard.\(^{66}\) In practice, the combination of the *BMC* and *Muniauction* holdings represents a difficult standard to meet when seeking to combine the actions of multiple actors for the purpose of bringing a direct infringement claim because the parties must have an agency or near-agency relationship.

### B. Indirect Infringement

The doctrine of indirect infringement provides courts with the means to assess liability for infringement on the basis of actions that are culpable, but otherwise insufficient to establish liability under the direct infringement doctrine of § 271(a).\(^{67}\) The 1952 Act codified indirect infringement at § 271(b) and § 271(c). These sections did not represent a new theory of patent liability; instead, they merely codified, and parsed out, existing theories of “collaborative” liability, in which the courts held responsible those who “aided and abetted” patent infringement.\(^{68}\) Specifically, they separated the theory of contributory liability into two components: induced infringement and contributory infringement. Unlike direct infringement, which is a strict liability infrac-

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62 Id. at 1323.
63 Id.
64 Id. at 1321.
65 Id. at 1330.
66 Id.
67 35 U.S.C. § 271(a) (2012). Technically, under this definition, all modes of infringement other than direct infringement under § 271(a) could be considered “indirect” infringement, but for our purposes indirect infringement is represented by the less specialized modes of infringement set out in §§ 271(b)–(c).

An infringement of a patent is a tort analogous to trespass or trespass on the case. From the earliest times, all who take part in a trespass, either by actual participation therein or by aiding and abetting it, have been held to be jointly and severally liable for the injury inflicted.  

*Id.*
tion, requiring no knowledge by the infringer about the existence of the patent, indirect liability requires the infringer to possess some form of requisite knowledge and intent.\textsuperscript{69}

1. **Induced & Contributory Infringement**

Section 271(b) provides that “[w]hoever actively induces infringement of a patent shall be liable as an infringer.”\textsuperscript{70} Inducement occurs when one party “advises, encourages, or otherwise induces others to engage in infringing conduct.”\textsuperscript{71} Induced infringement is in some ways more difficult to prove than direct infringement, but is arguably the broadest theory of liability because the conduct elements such as “encouraging” or “advising” can be more easily proven than showing the party performed each and every part of the patent.\textsuperscript{72}

Contributory infringement occurs when a party supplies components of a patented product, apparatus, or process knowing that such components will be used in infringement of the patent.\textsuperscript{73} Contributory infringement is more likely in the context of a patent for a product, system, or apparatus.\textsuperscript{74} However, it could also occur where there is a patent for some types of processes. For example, revisiting our hypothetical syrup-manufacturing method, a party who provides the direct infringer with a machine specially adapted to carry out the patented process may be held liable as a contributory infringer.\textsuperscript{75}

2. **Level of Intent Necessary for Indirect Liability**

One way in which indirect liability under § 271(c) differs from direct infringement under § 271(a) is that the former expressly introduces a knowledge and intent element that is not present in the latter.\textsuperscript{76} The plain language of § 271(b), however, contains no express knowledge requirement for intent on the part of an infringer, merely stating that one who “actively” induces infringement may be held liable as an inducer.\textsuperscript{77} In practice, courts have inter-


\textsuperscript{70} 35 U.S.C. § 271(b) (2012).

\textsuperscript{71} Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301, 1307 (Fed. Cir. 2012).

\textsuperscript{72} Id. at 1308.

\textsuperscript{73} 35 U.S.C. § 271(c) (2012).

\textsuperscript{74} Many method patents, especially those that are implemented through computer software, do not consist of a set of components that could form the basis of a contributory infringement claim.

\textsuperscript{75} 35 U.S.C. § 271(c). The statute provides a safe harbor to suppliers of “staple article[s]” that have “substantial noninfringing use[s].” Id. Thus, a supplier of standard hex bolts may provide these products to a direct infringer, even if the supplier knows with certainty that the bolts will be used in an infringing apparatus.

\textsuperscript{76} Compare 35 U.S.C § 271(a) (2012), with 35 U.S.C. § 271(c).

\textsuperscript{77} 35 U.S.C. § 271(b).
interpreted § 271(b) to require the same level of knowledge and intent as well, determining that the phrase “actively induces” infers this element. The presence of a knowledge requirement means that indirect liability is a theory requiring culpability, rather than a theory of strict liability.

Since the enactment of the 1952 Patent Act there has been confusion over the amount of intent required to satisfy the “active” element of the statute. The courts have increasingly made the element of intent more difficult for patent holders to demonstrate. Currently, the intent requirement for active inducement is governed by precedent set in Global-Tech Appliances v. SEB, decided by the US Supreme Court in 2011.

The Court in Global-Tech found that the appropriate standard of intent for a claim of induced infringement was identical to the intent requirement necessary to prove claims of contributory infringement; namely, in order to actively induce infringement, the defendant “must know that the induced acts constitute patent infringement.”

The Court held that this knowledge could be shown directly or imputed through the criminal concept of “willful blindness.” The Court explained that “deliberate indifference to a known risk that a patent exists is not the appropriate standard” to impute knowledge through the doctrine of willful blindness, and concluded that, instead, the plaintiff must prove a defendant was aware of the “high probability that a fact exists” and took “deliberate actions to avoid learning of th[e] fac[t][s].” The holding did away with the “known or should have known” standard used in previous cases decided by the Federal Circuit and made it more difficult for patent holders to prove that an accused infringer had sufficient intent.

3. Induced Infringement Under the Single-Entity Rule

While the Global Tech ruling tasked plaintiffs with proving a heightened standard of knowledge in induced infringement actions, the BMC ruling created even greater hurdles to proving induced infringement for certain types of method claims. The BMC court found that the single-entity rule applied not only to claims of direct infringement, but also to those of induced infringement under § 271(b). The court applied the rule to induced infringement because it recognized § 271(a) as the statutory definition in the Patent Act for the term

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79 See Morgan, supra note 69, at 174.
81 Global-Tech Appliances, Inc., 131 S. Ct. at 2068.
82 Id. at 2063, 2067–68.
83 Id. at 2068–69, 2071.
84 Id. at 2068, 2070.
“infringement.” 86 This definition of infringement was read in conjunction with the plain language of § 271(b), which provided that “[w]hoever actively induces infringement of a patent shall be liable as an infringer.” 87 Taken together, induced infringement could only occur where a single party had been induced to perform all the steps required for infringement. 88 To put it another way, there could be no induced infringer without a single, underlying direct infringer. 89

Because the direction or control standard was only satisfied by agency-type relationships, this interpretation made a number of valid patents practically impossible to enforce under any doctrine of infringement. 90 Most notably, patents which called for several independent parties to act in conjunction with one another to complete a patented process were essentially immune from enforcement. 91

Finally, strict application of the rule even meant that where the inducing party also performed one or more of the steps themselves and then induced the remaining steps, no infringement could be found. 92 In short, the application of the single-entity rule in these situations highlighted a glaring hole in patent enforcement. 93

The BMC court acknowledged that this standard would allow some parties to escape liability by entering into arms-length agreements, 94 but determined that this possibility was an insufficient reason to extend the strict liability doctrine of direct infringers to “reach independent conduct of multiple actors.” 95 The court placed the onus on claim drafters to capture this type of infringement by drafting claims in such a way that they can be infringed by a single party, as

86 Id. (holding that infringement is derived from the “statute itself” at § 271(a)).
88 BMC Res., Inc., 498 F.3d at 1380.
89 Id.
90 See Gupta, supra note 60, at 61–62.
91 Id. at 61.
92 Id. at 62–63.
93 A number of infringement claims have been dismissed at the trial court level for failure to meet the standards of the single-entity rule. See, e.g., Global Patent Holdings, LLC v. Panthers BRHCC LLC, 586 F. Supp. 2d 1331, 1335–36 (S.D. Fla. 2008) (dismissed for failure to show that remote users who performed elements of claim were under the direction and control of defendant); Friday Group v. Ticketmaster, No. 4:08CV01203, 2008 WL 5233078, at *4 (E.D. Mo. 2008) (dismissed for failure to allege that any one defendant performed all the elements of the claim); PA Advisors, LLC v. Google, Inc., 706 F. Supp. 2d 739, 748–49 (E.D. Tex. 2010) (finding non-infringement where portions of a method for searching the internet were initiated by the user, and the rest by the search provider’s system).
94 BMC Res., Inc., 498 F.3d at 1381.
95 Id.
suggested by commentator Mark Lemley. These were the issues before an en banc Federal Circuit Court of Appeals in *Akamai v. Limelight (Akamai II).*

### III. The Akamai Decision

#### A. Background of the Case

In 2010 and 2011, panels of the Federal Circuit Court of Appeals considered two cases involving the issue of divided infringement, *Akamai Technologies v. Limelight Networks* and *McKesson Information Solutions v. Epic Systems Corporation.* In *Akamai,* the patent holder had developed a method for efficient delivery of internet content. Their method consisted of a process through which a bank of servers stored portions of content to be displayed on a client’s web page. The client’s web page was modified, or “tagged,” by Akamai to allow access to these servers, resulting in more efficient delivery of the content.

Limelight was accused of both direct and induced infringement of the process when it operated a similar bank of servers that also stored portions of web content for efficient delivery and delivered this content to properly configured client websites. However, in contrast to the procedures used by Akamai, Limelight did not directly perform the step of tagging its clients’ websites. Instead, Limelight provided instructions to its clients on how modify their sites, and the website owners then performed the necessary modifications themselves. Due to this division of labor, Limelight sought protection under the single-entity rule found in *BMC* and made a motion for judgment as a matter of law, claiming no infringement had occurred. The district court granted the motion. Akamai then appealed to the CAFC. The CAFC affirmed the decision of the district court on the premise that, under the standard of “direction and control” set forth in *Muniauction,* Limelight did not infringe because it had not performed all the steps of the claim, and there was no agency or contractual relationship between Limelight and its customers.

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96 *Id.* See also *Lemley et al., supra* note 15, at 272 (“Most 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.”). Claims drafted in this manner are coined “unitary” claims. For example, a claim which recites a process in which 1) party A inputs data into a database and sends it to party B, who then 2) compiles the data, and 3) sends a summary of the data back to party A, could be drafted in a unitary manner by changing step 1 to read “Party B receives inputted data from party A.” This would allow the claim to be infringed by the actions of party B alone.


99 *Akamai Techs., Inc.*, 692 F.3d at 1306.

100 *Id.*

101 *Id.*

102 *Id.*

103 *Id.*

104 *Id.* at 1351.

105 *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1314 (Fed. Cir. 2010).
In *McKesson*, the patent holder attempted to enforce a claim on its process which provided patients, health care providers, doctors, and other medical professionals with a means to share medical information electronically via a software system over the internet. McKesson asserted that the defendant, Epic, induced infringement under § 271(b) when it provided health care providers with software entitled “MyChart” which accomplished the same tasks detailed in the McKesson patent.\(^{106}\)

Epic asserted that the communications in the software platform were initiated by the patient and other users on the system, with no single entity performing all the steps in the patented method.\(^{107}\) As a result, Epic claimed that it could not be liable for induced infringement and moved for summary judgment. McKesson argued that Epic satisfied the “direction and control” test because it controlled access to the MyChart software by granting user identifications and passwords.\(^{108}\) The trial court found that the access control which Epic provided was inadequate to meet the single-entity standard and granted the motion for summary judgment.\(^{109}\) As in the *Akamai* case, McKesson’s appeal to the CAFC was unsuccessful based upon precedent in both *Muniauction* and *BMC*.\(^{110}\) In his concurrence, Judge Bryson, while agreeing that *Muniauction* and *BMC* were controlling, expressed concerns about the wisdom of the precedent in these cases and noted that the standard “may warrant review by the en banc court in an appropriate case.”\(^{111}\)

An appropriate case was soon found when the plaintiffs in *Akamai*, after the publication of Judge Bryson’s concurrence, requested just such a hearing before the CAFC.\(^{112}\) The request was granted, and shortly thereafter McKesson filed its own request for an en banc hearing.\(^{113}\) The two cases were then consolidated for rehearing before the CAFC. The question the parties were instructed to brief the court on was “[i]f separate entities each perform separate steps of a method claim, under what circumstances would that claim be directly infringed and to what extent would each of the parties be liable?”\(^{114}\)

B. The New Precedent Under *Akamai II*

In a sharply divided decision, an en banc CAFC reversed the district court in both the *Akamai* and *McKesson* cases in *Akamai II*, holding that the single-entity rule did not bar claims of indirect infringement.\(^{115}\) However, rather than directly tackling the problem of the single-entity rule and direct infringement as

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\(^{106}\) Akamai Techs., Inc., 692 F.3d at 1306–07.

\(^{107}\) Id.

\(^{108}\) Id. at 1336 (Newman, J., dissenting).

\(^{109}\) Id. at 1324, 1336 (explaining summary judgment was based on the precedent in *Muniauction* in which held that access control was insufficient for liability).

\(^{110}\) Id. at 1306–07 (per curiam opinion).


\(^{114}\) Order Granting En Banc Rehearing, supra note 112, at 2.

\(^{115}\) Akamai Techs., Inc., 692 F.3d at 1306, 1318–19.
it applied to multiple parties, the court side-stepped the issue. The court explicitly stated that “[i]t is not necessary for us to resolve [the issue of divided, direct infringement] today because we find that these cases and cases like them can be resolved through an application of the doctrine of induced infringement.”

The decision created a bifurcated approach to divided infringement, where § 271(a) is appropriate only for infringement that can be attributed to a single party under the BMC precedent, while § 271(b) is used for infringement attributable to more than one party. In promoting this approach, the court essentially left the single-entity doctrine for direct infringement untouched.

Instead, the Court abandoned the notion that § 271(a) defined the standard of patent infringement for the rest of the statute, and held that “all the steps of a claimed method must be performed in order to find induced infringement, but that it is not necessary to prove that all the steps were committed by a single entity.” The result of this interpretation is that patent professionals, patent holders, and would-be “infringers” now have a new set of questions about certain aspects of divided infringement to which there appears to be little or no guidance from either the court or the statute.

IV. Aftermath of Akamai II: The Good, The Bad, and The Unanswered

A. The Good: Increased Protection for Method Patents

The Akamai II holding contains good news for holders of method patents who under the single-entity rule had no prospect of being able to enforce their rights because it was either incapable or impractical to construct the terms of their patent claims in a “unitary” manner. Parties are no longer assured freedom from liability for infringement because they assigned the steps of a method claim to customers or entered into arms-length agreements (cooperative infringement arrangements). Parties currently in litigation have already experienced varying degrees of success in applying the precedent of Akamai II to their ongoing suits.

In addition, the ruling strikes a balance between expanding the enforcement of divided infringement claims while maintaining the innocence of participants whose actions are less than culpable. Plaintiffs who cannot prove an agency-type relationship necessary to satisfy the single-entity rule for direct infringement must instead provide evidence for knowledge intent under the

116 Id. at 1306.
117 Id.
118 Holbrook, supra note 45, at 508. (“[T]he court rejects the single entity rule for induced infringement but retains the requirement for direct infringement.”).
119 Id.
120 Akamai Techs., Inc., 692 F.3d at 1306.
induced infringement standard. This exacting standard should protect innocent participants from being ensnared.

B. The Bad: Fear and Loathing in Patent Litigation

The dissenting opinions authored by Newman and Linn in Akamai II point out several shortcomings in the majority ruling, and commentators have highlighted several more. The decision creates uncertainty and possible inequity with regard to who may or may not be held liable for infringement, what remedies are available to the patent holder, and the extent of liability to which the inducer may be exposed. Finally, by distinguishing § 271(a) and § 271(b) as separate causes of action, the court has arguably created uncertainty in maintaining the territorial nature of patents in instances of inducement.

1. Unbalanced Liability for Infringement

Without the need for a direct infringer as a prerequisite for induced infringement, an induced infringer may presumably be the only liable party, even if that infringer’s actions represented only a small portion of the total infringement. For example, consider a method patent which consists of five individual steps. Inducer A performs the first step in the process, and “encourages” infringer B to perform the rest of the process. B does so, fully performing steps two through five. Assuming that both A and B know a patent exists for the process, justice would seem to demand that B should be at least as liable, if not more liable, than A. However, under Akamai II, B has no liability under any theory of either direct or indirect infringement. Thus, while at once sparing innocent infringers, the inducement only rule may at the same time also protect those infringers who are arguably most culpable.

As Judge Newman pointed out in her dissent, this inability to impute liability to all those responsible for the infringement can lead to additional enforcement problems. For example, let us suppose that in the hypothetical outlined above, the first step in the infringement (performed by A), once performed, need not be performed again for multiple iterations of the process. This scenario might also lead to A being liable for multiplicative damages each time B performs the additional steps in the patent. These multiplicative damages further accentuate the injustice as to the liability between A and B, and are

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122 See Akamai Techs., Inc., 692 F.3d at 1321 (Newman, J., dissenting) (“[T]he court gives no attention to the accompanying new issues such as the measure of damages, or the availability of remedy against direct infringement.”).

123 See id. at 1330 (“Since the direct infringers cannot be liable for infringement, they do not appear to be subject to the court’s jurisdiction.”).

124 See id.

125 See id. (questioning whether inducers will be subject to multiplicative damages); 7 DONALD S. CHISUM, CHISUM ON PATENTS: A TREATISE ON THE LAW OF PATENTABILITY, VALIDITY AND INFRINGEMENT § 20.03(7)(b)(iv) (2013) (“The appropriate measure of monetary relief against an indirect infringer (i.e. one who contributes to or induces infringement) will be the same as that against the direct infringer.”); Ward, supra note 80, at 21–22 (“An inducer of infringement is jointly liable with the direct infringer for the infringement . . . . Damages in any [patent] case are based on . . . (1) lost profits, (2) an established royalty, or (3) a reasonable royalty.”).

126 See Ward, supra note 80, at 21–22.
based on an extended theory of accomplice liability that threatens to place a significant and, in many cases, unwarranted amount of comparative liability on an indirect infringer.  

2. Lack of Enforcement Options for Patent Holders

What may be even more disturbing than the possible multiplicative liability for the inducer is the potential inability to prevent the remaining infringers from engaging in the infringing behavior. By creating a system of inducement-only liability, the patent holder may have little or no recourse for halting the infringement of her patent.

Consider the example above as it applies to enforcement options for the holder of the patent (P). Imagine P manages to sway a court to enjoin A from inducing further infringement of his patent. B is completely unaffected by this injunction, assuming as above that A’s step need not be repeated. B has in effect earned a license to infringe upon P’s patent. Further, it is unclear what the court can actually enjoin A from doing. Is A only enjoined from inducing infringement, or is A enjoined from performing the portion of the method which contributed to the ultimate infringement?  

The facts in Akamai II provide a concrete illustration of this problem. Limelight was found potentially liable for inducement when it provided instructions to its clients on how to modify their web pages to access their content from Limelight’s servers. Since a method patent cannot be infringed without each and every step being performed, the mere operation of Limelight’s servers in storing content falls short of infringement. Therefore, it seems unlikely that a court could enjoin Limelight from taking down its content servers. It is more probable that the court would enjoin Limelight from providing instructions to clients as to how to modify their sites to interface with Limelight’s content servers. This solution would leave Limelight’s current clients with the ability to continue to take advantage of Akamai’s patent.

3. The Issue of Extraterritorial Enforcement

Opponents of the Akamai II decision also argue that another possible problem arising out of the ruling is an extension of the scope of US patent law. Going as far back as 1856, the Supreme Court has consistently held that the exclusive rights granted to patent holders are highly territorial in nature. The reasons for the presumption of territoriality are many and varied, including “[p]otential conflicts with another nation’s laws, international comity, choice-of-law issues, congressional intent, and separation of powers.”

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127 See id. at 21.
128 It seems unlikely that the court would have the power to enjoin a party from taking an action for which there is no legal wrong. One of the basic elements for any injunction is that the requesting party has either already succeeded (permanent injunction) or is likely to succeed on the merits of the case (preliminary injunction).
129 See discussion supra II.B.1.
131 Id. at 2129.
INDUCED TO INFRINGE

The basis for the territorial nature of patent is also found in the Patent Act itself. Infringement under § 271(a) provides that an infringer must engage in infringing conduct “within the United States” or import a patented invention “into the United States.” This jurisdictional hook is also present under contributory infringement in § 271(c). However, as Timothy Holbrook pointed out, it is noticeably absent from the definition of induced infringement under § 271(b). Previously, this was no issue at all for the court because § 271(a) was deemed to provide the definition of infringement for § 271(b). The court’s new “inducement only” reading of the statute under Akamai II, as previously discussed, severs this link between the sections, holding that they are separate causes of action in and of themselves, and wholly independent of one another. The (likely unintended) result of this independence is that unlike either collaborative or direct infringement, induced infringement no longer seems to engender the territorial limitations so prized by the Supreme Court in its patent law jurisprudence.

V. A MODEL FOR THE RESOLUTION OF JOINT INFRINGEMENT CLAIMS

A. The Need for a Legislative Remedy

Patent rights are granted by statute under the authority granted to Congress in the Constitution, and do not generally exist at common law. This fact mandates, where possible, that solutions to the issue of divided infringement be set forth in a legislative, rather than judicial, manner. The oft-times confusing and conflicting jurisprudence on divided infringement indicates that practically the only certainty in this area of law is confusion. Ultimately, the scope of the exclusive rights granted under the Patent Act are questions of policy. As Judge Linn pointed out in his dissent, “[t]he fact that Congress was aware of BMC and Muniauction when it reformed the 1952 Patent Act indicates that Congress did not intend to abrogate the single entity rule for direct infringement, or broaden indirect infringement liability . . . .” Though the failure to legislate cannot be categorically looked at as an approval of current policy due to the complex nature of the legislative process, the point is still well-taken; patent law, as a creature of statute, should be modified by statute.

1. Congress Should Lend Clarity to the Patent Act

The first and most obvious step Congress should take to address the problem of divided infringement for method patents is to reduce the confusion in § 271(a). Under the new inducement-only rule, the term “infringement” is thought to exist outside of the definition of this section, and simply refers to the

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137 William N. Eskridge, Jr., Interpreting Legislative Inaction, 87 MICH. L. REV. 67, 67 (1988) (discussing that at times legislative inaction is viewed as acquiescence to judicial interpretation, while at other times this notion is rejected).
violation of the patentee’s rights that occurs when each and every step of the process is performed.\textsuperscript{138} The inducement-only rule interprets § 271(a) as providing a definition of who may be held liable as a direct infringer, rather than whether infringement has occurred.\textsuperscript{139} In contrast, under the “single-entity” rule, the term infringement was thought to be explicitly defined in the text of § 271(a). Congress should remove this ambiguity by re-defining the term to include a joint-infringement standard.

For example, a definition of infringement could be added to § 100 of the Patent Act essentially declaring that “except as otherwise defined, infringement is the act of making, using, offering to sell, or selling, a patented invention or fully performing a patented method process, within the United States, without regard to whether such act or acts are performed singly or in combination with multiple actors.” Such a definition would clarify whether infringement can occur outside of the presence of a direct infringer. In addition, it would solve the extraterritoriality issue that occurs under the current text, where infringement under § 271(b) is defined outside of § 271(a).

2. Loosening the Standard for Direct, Joint Infringement

The courts in \textit{BMC} and \textit{Muniauction} expressly rejected the jury instruction in \textit{On Demand} that allowed the court to find joint infringers liable through a “participation and combined action(s)” standard.\textsuperscript{140} However, this may be a more viable alternative than instituting the inducement-only rule because this rule ignores the actions of culpable parties who may have the knowledge and intent to share liability under an inducement standard, but possess the good fortune to have only actually performed protected elements of the process, rather than merely encouraged others to do so.

The inducement-only rule moves the ball slightly forward in attaining the goal of better patent enforcement by at least making someone liable in certain multi-party infringement situations. However, the goals of patent law would be better served if policies were devised to hold the right party (or parties) responsible, rather than just any party.

The rule risks implicating parties who have little, if any, culpability and whose actions may be undeserving of exposure to the world of intellectual property litigation. At present, policy makers appear to find these risks acceptable. The implication of other current patent doctrines, which include strict liability for direct infringement and lack of an “independent creation” defense suggest that the goal of patent enforcement takes precedence over the risk of ensnaring relatively innocent parties.

Nevertheless, unjust exposure to litigation could be greatly mitigated if Congress allowed damages to be apportioned based on the relative culpability of the various parties.\textsuperscript{141} Further, while keeping the strict liability doctrine alive for single-party infringement claims, Congress could limit the remedy against

\textsuperscript{138} Akamai Techs., Inc., 692 F.3d at 1314.  
\textsuperscript{139} Id.  
\textsuperscript{141} This idea has been suggested to varying degrees by others. See, e.g., Morgan, supra note 69, at 202 (discussing a regime of comparative responsibility).
“innocent” parties in joint infringement suits by placing a knowledge requirement on certain types or amounts of remedies. For instance, Congress could limit the liability of innocent infringers in joint-liability claims to either the value of the benefit they obtained from their actions, or to an “injunction only” remedy, which could then be narrowly tailored by the courts to limit future losses to the patent holder. This would allow patent holders to protect their rights by prohibiting actions that would continue to constitute infringement of their patent, but hopefully limit the incentive of patent trolls and other unscrupulous parties to pursue litigation against ordinary individuals. As Judge Newman pointed out, the goal of most intellectual property litigation (and most other forms of litigation) is to get to the “deep pocket,” not to pursue the individual customers and other similarly situated parties.

VI. Conclusion

The inducement-only rule for divided infringement of method patents was successful in that it provided a remedy to the glaring hole in the enforcement that resulted from the use of the “single-entity rule.” Despite this success, the new precedent adds uncertainty to several areas of previously-settled law, and appears to leave some patent holders unable to pursue either monetary or equitable remedies against some parties (at times the most culpable ones) who acted to infringe the patent. The failure to pursue remedies against the right parties frustrates the purpose of the Patent Act by incentivizing parties to find ways around the protections of Patent law in order to reap the benefits of the ingenuity and creativity of others. As a consequence, inventors may have less incentive to publish their discoveries through patent to the ultimate benefit of the public.

Congress should amend the Act to lend clarity to the courts, litigators, and inventors. A new standard should be adopted which still provides for strict liability for patent damages in cases of single-party infringement, but also allows joint-infringement claims with multiple parties to be resolved through the application of comparative fault and limited availability of money damages to parties without knowledge that their actions infringed a patent.

142 The purpose of this Note is to suggest possible solutions to the problems of divided infringement created under the Akamai II rule. It is outside the scope of this paper to determine which of these types of remedy limitations would be best suited under what circumstances.

143 Akamai Techs., Inc., 692 F.3d at 1332 (Newman, J., dissenting).