

A ROCK AND A HARD PLACE: CHOOSING BETWEEN § 271(A) AND (B) FOR DIVIDED INFRINGEMENT IN *AKAMAI*

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Our patent system incentivizes inventors to share their useful inventions to the public by giving them exclusive rights to practice their inventions for a limited time. However, such incentives only exist if inventors know that their exclusive rights can be reliably enforced. A loophole in patent infringement law for certain inventions means that inventors will be reluctant to share their work, and society will be deprived of the benefits of such inventions. A loophole that allows no recourse against divided infringement¹ of method patents raises such an issue.

Since the 1970s, courts have recognized that when there is divided infringement of a method patent, the entities that collectively perform all the claimed steps should and can be held liable. In such a situation, courts typically find liability through the doctrine of joint infringement under 35 U.S.C. § 271(a).² To establish liability under this doctrine, there must be some relationship between these entities, but the relationship standard has not remained constant. In 2007, *BMC Resources v. Paymentech, L.P.* established that a “direction or control” relationship among these entities is a prerequisite for liability.³ However, in 2012, the Federal Circuit changed the law in its en banc decision in *Akamai Technologies, Inc. v. Limelight Networks, Inc.*⁴ Instead of ruling on the appealed issue of the “direction or control” standard, the Federal Circuit created a new avenue for finding liability through inducement of

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1. For the purpose of this discussion, several different types of infringement are defined as follows. Divided infringement is broadly defined as infringement by the aggregate conduct of more than one actor. See Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 256 (2005). Direct infringement means infringement under 35 U.S.C. § 271(a), while indirect infringement means inducement of infringement under § 271(b) or contributory infringement under § 271(c). The doctrine of joint infringement is a doctrine through which courts find liability under § 271(a) in situations of divided infringement of method patents.

2. 35 U.S.C. § 271(a) (2006).

3. *BMC Resources v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007).

4. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012).

infringement under § 271(b).⁵ In doing so, the Federal Circuit partially overruled *BMC Resources* and held that for the purpose of finding inducement liability, there is no “direction or control” relationship requirement among the induced entities.⁶ However, the relationship standard established by *BMC Resources* for the purpose of applying the doctrine of joint infringement under § 271(a) has been left intact.⁷

Akamai represents a substantial change in the law governing divided infringement, and closes a loophole following *BMC Resources* that left patentees without recourse when entities were able to collectively perform all the steps of a method claim through arms-length transactions. Under *BMC Resources* and before *Akamai*, since there was no “direction or control” relationship among these entities, no one was liable under the doctrine of joint infringement.

Part I of this Note traces the development of divided infringement law leading up to *Akamai*. Part II explains *Akamai*, and Part III discusses the propriety of the new *Akamai* rule based on patent policy, legislative history, case law, and statutory interpretation. Part III also argues that although the *Akamai* rule is correct in light of patent policy and legislative history, it nevertheless results in inconsistent statutory interpretation. Instead of opening this new avenue for finding liability, a better approach is to simply loosen the relationship standard required under the doctrine of joint infringement.

I. HISTORY OF DIVIDED INFRINGEMENT LAW

Although patent infringement law was codified for the first time in 1952,⁸ common law had long recognized that it is desirable to hold an entity liable when it acts in concert with another to infringe a patent, even though the entity fails to infringe on its own.⁹ Part I of this Note explores the common

5. *Id.* at 1306.

6. *Id.* (“[W]e hold 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.”).

7. *Id.* (“Much of the briefing in these cases has been directed to the question whether direct infringement can be found when no single entity performs all of the claimed steps of the patent. It is not necessary for us to resolve that issue today because we find that these cases and cases like them can be resolved through an application of the doctrine of induced infringement.”).

8. 35 U.S.C. § 271 (1952).

9. *See* H.R. REP. NO. 82-1923, at 9 (1952) (“The doctrine of contributory infringement has been part of our law for about 80 years. It has been applied to enjoin those who sought

law treatment of such scenarios before the Patent Act of 1952, and the subsequent development of the doctrine of joint infringement leading up to *Akamai*.

A. DIVIDED INFRINGEMENT BEFORE 1952

Prior to 1952, instead of defining infringement, the patent statute simply conferred exclusive rights to a patentee,¹⁰ and a violation of those rights was a tort remediable through a lawsuit.¹¹ In the early days of the patent system, from the late eighteenth century to the first half of the nineteenth century, courts ruled on the issue of infringement by comparing a defendant's product or process with the asserted patent's specification, finding infringement as the act of making a substantial copy of the invention described in the specification.¹² After the requirement for claims was introduced in the Patent Act of 1836,¹³ the infringement analysis gradually shifted to the claims.¹⁴ This shift naturally led to a question: If a person is liable as an infringer for making or performing all the elements in a claim, what is the liability for one who falls short of doing so but violates a patentee's right by combining his products or actions with those of another person's?

Thus came the earliest cases of divided infringement. *Wallace v. Holmes* in 1871 was the first case that recognized contributory infringement, the act of providing parts for a patented combination but letting another entity

to cause infringement by supplying someone else with the means and directions for infringing a patent.”).

10. Patent Act of 1836, ch. 357, § 5, 5 Stat. 117 (1836) (granting a patentee “the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery”). See also H.R. REP. NO. 82-1923, at 9 (1952) (stating that “the granting clause [of the Patent Act] creates certain exclusive rights and infringement would be any violation of those rights”).

11. *Contributory Infringement: Hearings on H.R. 3866 Before Subcomm. No. 4 of the H. Comm. on the Judiciary*, 81st Cong. 2 (1949) (statement of Giles S. Rich) (“A patent grants certain rights to the patentee, specifically the right to exclude others from making, using, or selling the invention which is covered by his patent, and any violation of that right is a tort.”).

12. See GEORGE TICKNOR CURTIS, A TREATISE ON THE LAW OF PATENTS FOR USEFUL INVENTIONS, AS ENACTED AND ADMINISTERED IN THE UNITED STATES OF AMERICA § 307 (The Lawbook Exchange, 4th ed. 2005) (1873) (“An infringement involves substantial identity, whether that identity is described by the terms, ‘same principle,’ ‘same *modus operandi*,’ or any other. It is a copy of the thing described in the specification of the patentee, either without variation, or with only such variations as are consistent with its being in substance the same thing.”).

13. Patent Act of 1836, ch. 357, § 6, 5 Stat. 117 (1836) (requiring a patentee to “particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery”).

14. See, e.g., *Merrill v. Yeomans*, 94 U.S. 568 (1876).

complete the combination.¹⁵ In *Wallace*, the plaintiff patented an oil lamp that required both a burner and a glass chimney on top of the burner.¹⁶ The defendant manufactured and sold burners that were substantially the same as the patentee's burner but did not provide any accompanying chimneys.¹⁷ Instead, the defendant allowed its customers to complete the assembly on their own.¹⁸ Although the court acknowledged the general rule that there is no infringement unless the defendant makes all the claimed elements, it nevertheless held that the defendant infringed the patent because the burners sold by the defendant had no other use except for being combined with the chimneys.¹⁹

On the other hand, the court in *Snyder v. Bunnell* in 1886 held that a device sold by the defendant did not infringe because it had non-infringing uses.²⁰ The plaintiff's patent covered an electromagnetic burglar alarm designed for continued ringing after it was triggered.²¹ Although the defendant sold a device that could be combined with others to infringe the patent, the device also had non-infringing uses.²² Also, there was no evidence that the defendant sold the device knowing that it could be combined for infringement.²³ The court distinguished *Wallace*, reasoning that while the defendant's product in *Wallace* could not be used in any manner that did not infringe, the device at issue in *Snyder* could be used for non-infringing purposes.²⁴ The court thus ruled that if the defendant was liable, others could be equally liable for the sale of an unpatented galvanic battery or electric bell, which were also necessary components in the patented invention, and that such a rule would be too dangerous.²⁵

In addition to cases where courts found contributory infringement based on the absence of non-infringing uses of the accused product, there was another line of cases where courts found contributory infringement based on the defendant's intent. One example is *Westinghouse Electric & Manufacturing Co. v. Precise Manufacturing Corp.* in 1926, where the Second Circuit found the defendant liable because it intended for its product to be combined into an

15. *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871).

16. *Id.* at 79.

17. *Id.* at 79–80.

18. *Id.*

19. *Id.* at 80.

20. *Snyder v. Bunnell*, 29 F. 47 (C.C.S.D.N.Y. 1886).

21. *Id.* at 47.

22. *Id.*

23. *Id.*

24. *Id.*

25. *Id.* at 48.

infringing device.²⁶ The defendant manufactured and sold transformers that could be combined with other components into an infringing radio receiver.²⁷ Although the transformers could be used for non-infringing purposes, the defendant advertised that they were especially suitable for the infringing use and provided instructions to build the infringing radio receiver.²⁸ The court thus held that because the defendant manufactured with knowledge of the contemplated infringement, it was liable for contributory infringement.²⁹

However, just as clever manufacturers attempted to avoid infringement liability by not making every element of a claimed invention, ingenious patentees started to push for product tying arrangements,³⁰ hoping to extend the scope of patent protection beyond what was claimed. In *Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co.*, the plaintiff held patents related to the fastening of buttons to shoes and machines for such operation.³¹ The machines were sold by the patentee with other unpatented staple articles used by the machines, under an agreement that the sale was on the condition that the purchaser would only use the patentee's staple articles.³² The Sixth Circuit held that the tying arrangement for the staple articles was enforceable, reasoning that the purchasers of the button-fastening machines agreed that their rights to use the machines were limited to the use of the machines with the staple articles supplied by the patentee.³³ *Button-Fastener* led to widespread use of tying arrangements.³⁴ Such use was subsequently affirmed by the Supreme Court in *Henry v. A.B. Dick*, where the Court permitted the use of a tying arrangement that required purchasers of a patented mimeograph device to use only staple articles manufactured by the patentee.³⁵

26. *Westinghouse Elec. & Mfg. Co. v. Precise Mfg. Corp.*, 11 F.2d 209, 211–12 (2d Cir. 1926).

27. *Id.* at 211.

28. *Id.*

29. *Id.* at 212.

30. Tying arrangements are contracts that require consumers of a patented article to purchase necessary but unpatented components of that article from the patentee, thus effectively expanding the patent's scope to the components.

31. *Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co.*, 77 F. 288, 288 (6th Cir. 1896).

32. *Id.* at 289.

33. *Id.* at 292.

34. Such widespread use can be demonstrated by the many cases in which tying arrangements were upheld. *See, e.g.*, *Rupp & Wittenfeld Co. v. Elliott*, 131 F. 730, 731, 734 (6th Cir. 1904); *Victor Talking Mach. Co. v. The Fair*, 123 F. 424, 426–27 (7th Cir. 1903).

35. *Henry v. A.B. Dick*, 224 U.S. 1, 49 (1912).

Nevertheless, these tying arrangements had a short lifespan. Just five years after *A.B. Dick*, the Supreme Court overruled it in *Motion Pictures Patents Co. v. Universal Film Manufacturing Co.*³⁶ In *Motion Pictures*, the plaintiff owned a patent covering a film feeding mechanism used within a movie projector and granted a license to a projector manufacturer that agreed to sell the patented projectors subject to restrictions.³⁷ The projectors were sold under the condition that they would be used solely for playing films embodying a separate patent that was licensed by the plaintiff.³⁸ The Court ruled that a patentee's rights were limited to the claims of the patent, and that it was improper to extend these rights by restricting the staple articles that were used by the patented invention if the staple articles were not covered by the same patent.³⁹

After *Motion Pictures*, patentees' rights were further limited by the doctrine of patent misuse, which was affirmed by the Supreme Court in *Carbice Corp. of America v. American Patents Development Corp.*⁴⁰ In *Carbice Corp.*, the plaintiff sued its competing manufacturer for contributory infringement because the competitor sold to the patentee's customers dry ice used in transportation packages covered by the plaintiff's patent.⁴¹ Instead of examining the accused infringer's conduct, the Court looked at the plaintiff's behavior and denied relief because the plaintiff was "attempting, without sanction of law, to employ the patent to secure a limited monopoly of unpatented material used in applying the invention."⁴² Soon afterwards, the doctrine of patent misuse quickly developed with cases by the Supreme Court, such as *Leitch Manufacturing Co. v. Barber Co.*⁴³ and *Morton Salt Co. v. G.S. Suppiger Co.*⁴⁴ In those cases, the Court reiterated the prohibition against using a patent to obtain a monopoly over an unpatented article.⁴⁵ Subsequently, in *B.B.*

36. *Motion Pictures Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).

37. *Id.* at 505–06.

38. *Id.* at 506–07.

39. *Id.* at 518.

40. *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931). Although *Carbice* discussed the concept of the doctrine of patent misuse, it did not coin the term. The term likely originated in *B.B. Chemical Co. v. Ellis*, where the Supreme Court discussed the "petitioner's misuse of the patent by permitting its use only with the unpatented materials sold by petitioner." *B.B. Chem. Co. v. Ellis*, 314 U.S. 495, 496 (1942).

41. *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931).

42. *Id.* at 33–34.

43. *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458, 463 (1938).

44. *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942).

45. *Id.* at 493–94 ("Where the patent is used as a means of restraining competition with the patentee's sale of an unpatented product . . . Equity may rightly withhold its assistance from such a use of the patent by declining to entertain a suit for infringement, and should do so at least until it is made to appear that the improper practice has been abandoned and that

Chemical Co. v. Ellis, the Court held that the patentee's attempt to monopolize the sale of unpatented staple articles barred it from obtaining an injunction.⁴⁶

While these rulings prevented tying arrangements, they also significantly diminished the power of the doctrine of contributory infringement, for a patentee asserting this doctrine ran the great risk of being accused of patent misuse. The hardest blow against this doctrine came in *Mercoid Corp. v. Mid-Continent Investment Co.*⁴⁷ In denying the plaintiff injunctive relief against the accused contributory infringer, the Court discussed the relationship between the doctrines of patent misuse and contributory infringement, stating that “[w]here there is a collision between the principle of [patent misuse] and the conventional rules governing either direct or contributory infringement, the former prevails.”⁴⁸ In essence, this line of patent misuse cases by the Supreme Court effectively eviscerated contributory infringement, for it became almost impossible to assert contributory infringement without risking a counterclaim of patent misuse. Finding no support from the courts, patentees decided to turn to the legislature to effectively enforce their patent rights.

B. THE PATENT ACT OF 1952

In 1948, the New York Patent Law Association initiated the effort to draft the bill H.R. 5988 in the 80th Congress to codify contributory infringement,⁴⁹ so as to “provide for the protection of patent rights where enforcement against direct infringers is impracticable, [and] to define ‘contributory infringement.’”⁵⁰

The bill did not pass the Congress, nor did its successor, H.R. 3866 in the 81st Congress.⁵¹ Subsequently, the effort to codify the rules of infringement was subsumed in a much more expansive plan to codify many aspects of

the consequences of the misuse of the patent have been dissipated.”); *Leitch Mfg. Co.*, 302 U.S. at 463 (“[E]very use of a patent as a means of obtaining a limited monopoly of unpatented material is prohibited.”).

46. *B.B. Chem. Co. v. Ellis*, 314 U.S. 495, 497–98 (1942) (“[I]n view of petitioner’s use of the patent as the means of establishing a limited monopoly in its unpatented materials . . . we hold that the maintenance of this suit to restrain any form of infringement is contrary to public policy, and that the district court rightly dismissed it.”).

47. *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661 (1944).

48. *Id.* at 669.

49. See *Contributory Infringement in Patents and Definition of Invention: Hearings on H.R. 5988, 4061, and 5248 Before Subcomm. on Patents, Trade-Marks, and Copyrights of the H. Comm. on the Judiciary*, 80th Cong. 1, 6 (1948) (statements of Earl R. Lewis and Giles S. Rich).

50. *Id.* at 1 (statement of Earl R. Lewis).

51. H.R. 3866, 81st Cong. (1949).

patent law, H.R. 9133 in the 81st Congress,⁵² which later evolved to H.R. 3760 in the 82nd Congress,⁵³ and eventually became H.R. 7794 in the later session of the same Congress and passed in the Senate to become Title 35 of the United States Code.⁵⁴

In H.R. 5988, only indirect infringement was mentioned, but it included both indirect infringement based on inducement and on the act of providing a non-staple part of an infringing device⁵⁵—contributory infringement as we know it today. The sections governing indirect infringement evolved through the subsequent bills to become 35 U.S.C. § 271(b) and (c).⁵⁶ On the other hand, the section governing direct infringement was not introduced until H.R. 9133 in 1950 and subsequently evolved into 35 U.S.C. § 271(a).⁵⁷

As a result, the current patent infringement statute, 35 U.S.C. § 271, as codified in 1952, states:

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) 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.⁵⁸

52. H.R. 9133, 81st Cong. (1950).

53. H.R. 3760, 82d Cong. (1951).

54. H.R. 7794, 82d Cong. (1952).

55. H.R. 5988, 80th Cong. §§ 1–3 (1948).

56. 35 U.S.C. § 271(b)–(c) (1952); H.R. 7794, 82d Cong. § 271(b)–(c) (1952); H.R. 3760, 82d Cong. § 231(b)–(c) (1951); H.R. 9133, 81st Cong. § 231(c)–(e) (1950); H.R. 3866, 81st Cong. §§ 1–3 (1949).

57. 35 U.S.C. § 271(a) (1952); H.R. 7794, 82d Cong. § 271(a) (1952); H.R. 3760, 82d Cong. § 231(a) (1951).

58. 35 U.S.C. § 271 (1952).

C. DEVELOPMENT OF THE DOCTRINE OF JOINT INFRINGEMENT

After § 271 was introduced, courts promptly used paragraphs (b) and (c) to capture divided infringement of product claims. For example, in *Fromberg, Inc. v. Thornhill*, the defendant taught its customer car dealers how to recreate a patented device for repairing tire punctures by inserting a replacement part provided by the defendant.⁵⁹ The Fifth Circuit held that the defendant was liable as an inducer under § 271(b).⁶⁰ Also, in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, the owner of a patent covering automobile convertible tops sued a manufacturer of fabric replacements for such convertible tops, claiming that the manufacturer was a contributory infringer.⁶¹ The Supreme Court recognized that such an act of manufacturing could well “constitute contributory infringement under § 271(c), if, but only if, such a replacement by the [end users] would in itself constitute a direct infringement under § 271(a)”⁶² Nevertheless, the Court held that because the end users’ replacement of convertible tops constituted a permissible “repair,” there was no direct infringement, and thus no contributory infringement of the patent.⁶³

On the other hand, when there was divided infringement of method claims, the law developed at a slower pace and gradually turned into the doctrine of joint infringement. A central issue in this line of cases has been what kind of relationship between the entities who collectively performed a claimed method is required to hold them liable.⁶⁴ In most of the early district court cases, the courts required a looser relationship standard: “participation and combined action” or “some connection” would suffice.⁶⁵ This standard

59. *Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 410–11 (5th Cir. 1963).

60. *Id.*

61. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 337 (1961).

62. *Id.* at 341.

63. *Id.* at 345–46.

64. *See, e.g.*, *BMC Resources v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007) (finding “direction or control” the appropriate relationship standard for accused infringers under the doctrine of joint infringement); *E.I. Dupont De Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 734–35 (D. Del. 1995) (finding a merchant-customer relationship sufficient for finding liability); *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980) (requiring a “participation and combined action” relationship for finding liability).

65. *See, e.g.*, *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999) (“It is true that several district courts have found a party liable for direct infringement of a process patent even where the various steps included in the patent are performed by distinct entities. However, these cases indicate that some connection between the different entities justified that finding.”); *Shields*, 493 F. Supp. at 1389 (“When infringement results from the participation and combined action of several parties, they are all joint infringers and jointly liable for patent infringement.”).

was later accepted by the Federal Circuit in *On Demand Machine Corp. v. Ingram Industries, Inc.* in 2006.⁶⁶

One of the earlier cases that adopted a looser standard was *Metal Film Co. v. Melton Corp.*⁶⁷ In *Metal Film*, the court held the defendant liable for infringement when it hired outside suppliers to perform the first step of the plaintiff's patented method and completed the remaining steps itself.⁶⁸ However, there was no discussion of which subsection of § 271 should be used to find liability or of the term "joint infringement." Also, the court merely mentioned in a footnote that the fact that "defendants choose to have [one of the claimed steps] . . . done by outside suppliers does not mitigate their infringement of the overall process."⁶⁹ Nevertheless, the court did not examine what type of relationship the defendant had with the outside suppliers. Thus, under the *Metal Film* reasoning, entities that had a loose relationship but collectively performed a claimed method could be held liable for infringement.

Similarly, in *Mobil Oil Corp. v. W.R. Grace & Co.*, the court held the defendant liable for direct infringement when its customers performed the last step of the plaintiff's method claim, which covered a catalytic process to chemically transform a compound.⁷⁰ Except for the last heating step, which was performed by the customers, the defendant practiced all the other steps.⁷¹ Acknowledging that performance of the claimed method was divided between multiple entities, the court nevertheless held the defendant liable.⁷² The court reasoned that the defendant, in effect, "made each of its customers its agent in completing the infringement step" even though the relationship between the defendant and its customers was much looser than an agency relationship.⁷³ Like *Metal Film*, *W.R. Grace* supported a loose relationship standard for the purpose of applying the doctrine of joint infringement.

66. *On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1345 (Fed. Cir. 2006) (accepting a jury instruction that stated: "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.").

67. *Metal Film Co. v. Metlon Corp.*, 316 F. Supp. 96 (S.D.N.Y. 1970).

68. *Id.* at 110–11.

69. *Id.* at 110 n.12.

70. *Mobil Oil Corp. v. W. R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973).

71. *Id.*

72. *Id.*

73. *Id.* The relationship between the defendant and its customers was not one of true agency because the defendant did not have control over its customers with regard to how they performed some of the claimed steps, and the defendant only knew its customers would complete the last step but did not direct them to do so. *See id.*; RESTATEMENT (THIRD) OF AGENCY § 1.01 (2006) ("Agency is the fiduciary relationship that arises when [a principal]

In *Shields v. Halliburton Co.*, the court adopted a similar but different “participation and combined action” relationship requirement for finding liability.⁷⁴ The defendants collectively carried out a patented offshore drilling method while building oil rigs, with each defendant performing different steps of the method.⁷⁵ The court determined that all three companies were liable, reasoning that “[w]hen infringement results from the participation and combined action of several parties, they are all joint infringers and jointly liable for patent infringement.”⁷⁶ Also, the court stated that “[i]nfingement of a patented process or method cannot be avoided by having another perform one step of the process or method.”⁷⁷

On the other hand, the Ninth Circuit adopted a more stringent relationship standard in *Mobil Oil Corp. v. Filtrrol Corp.*⁷⁸ In *Filtrrol*, the defendants collectively performed the steps of the plaintiff’s claimed method for preparing a catalyst used in oil refineries.⁷⁹ The Ninth Circuit found neither one of the two defendants liable and questioned “whether a method claim can be infringed when two separate entities perform different operations and neither has control of the other’s activities.”⁸⁰

Afterwards, district courts continued to recognize the possibility of holding entities liable for divided infringement, even if the entities shared a relationship that did not amount to agency. In *E.I. Dupont De Nemours & Co. v. Monsanto Co.*, the court found a typical merchant-customer relationship sufficient for finding liability.⁸¹ The defendant performed the first step of the plaintiff’s patented method and sold the resulting product to its customer, who performed the remaining steps.⁸² The court held the customer liable for infringement and the defendant liable for inducement, reasoning that the

manifests assent to [an agent] that the agent shall act on the principal’s behalf and subject to the principal’s control, and the agent manifests assent or otherwise consents so to act.”). *See also* Long Truong, Note, *After BMC Resources, Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, 103 NW. U. L. REV. 1897, 1909 (2009) (stating that the situation in *W.R. Grace* was not one of true agency).

74. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980).

75. *Id.* at 1388–89.

76. *Id.* at 1389.

77. *Id.* at 1389.

78. *Mobil Oil Corp. v. Filtrrol Corp.*, 501 F.2d 282 (9th Cir. 1974).

79. *Id.* at 291.

80. *Id.* at 291–92.

81. *See E.I. Dupont De Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 734–35 (D. Del. 1995).

82. *Id.* at 734.

customers could not avoid direct infringement liability “by paying [the defendant] to practice step (a) of the patented process”⁸³

Faroudja Labs., Inc. v. Dwin Electronics, Inc. introduced a slightly different relationship standard—the “some connection” standard.⁸⁴ In *Faroudja*, the defendant was accused of inducing its customers to use its television line doublers in a manner that, combined with steps done by third parties, amounted to performance of all the claimed steps of the plaintiff’s patent.⁸⁵ However, the court reasoned that in order to find entities liable for infringing a claimed method by “work[ing] in concert,” there must be “some connection” between them.⁸⁶ The court found that the relationship between the customers and the third parties did not amount to “some connection” to warrant a determination of infringement.⁸⁷ Since there was no underlying direct infringement on the customers’ part, the court found no inducement liability for the defendant.⁸⁸

In subsequent cases, both district courts and the Federal Circuit continued to apply these looser standards for the doctrine of joint infringement.⁸⁹ However, in 2007 the Federal Circuit started tightening the relationship standard, eventually resulting in the single-entity rule—a requirement that the actions of one or more entities be attributable to one single entity in order to hold them liable as joint infringers.⁹⁰ In *BMC Resources*, the Federal Circuit rejected the prior looser standards and upheld the district court, which required a “direction or control” relationship

83. *Id.* at 735.

84. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97–20010 SW, 1999 WL 111788, at *5–6 (N.D. Cal. Feb. 24, 1999).

85. *Id.* at *4–5.

86. *Id.* at *5–6.

87. *Id.*

88. *Id.* at *7.

89. *See, e.g.*, *On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1345 (Fed. Cir. 2006) (agreeing with the trial court’s jury instruction which stated: “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.”); *Applied Interact, LLC v. Vt. Teddy Bear Co., Inc.*, No. 04 Civ. 8713 HB, 2005 WL 2133416, at *4 (S.D.N.Y. Sept. 6, 2005) (applying the “some connection” standard); *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *2, *4 (N.D. Ill. Apr. 30, 2003) (reiterating that “some connection” between the accused entities was required for the doctrine of joint infringement); *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 350 (D. Del. 2002) (finding that the relationship between a medical device company and its customers satisfied the “some connection” standard).

90. In Judge Newman’s words, the single-entity rule requires that divided infringement is not actionable “unless all of the participants are in a contract or agency relationship that is directed or controlled by a single ‘mastermind.’” *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (Newman, J., dissenting).

between the entities that committed divided infringement.⁹¹ Afterwards, in *Muniauction, Inc. v. Thomson Corp.*, the Federal Circuit further raised the bar for the relationship standard by framing the test as whether control by one entity over another exists to such a degree that the entity itself “can be said to have performed every step of the asserted claims”—a standard akin to agency.⁹² Subsequently, in *Golden Hour Data Systems, Inc. v. emsCharts, Inc.*, the Federal Circuit affirmed the district court’s use of the “direction or control” standard without much discussion.⁹³ Thus, recent case law has departed from the looser “participation and combined action” or “some connection” standards that were rooted in opinions from the 1970s to the 1990s and has evolved towards the heightened single-entity rule.⁹⁴

II. *AKAMAI*: THE CASE

In the Federal Circuit’s *Akamai* decision in 2012, the court once again faced the question of the required relationship standard between the accused infringers under the doctrine of joint infringement. *Akamai* was an en banc decision that consolidated a case between Akamai Technologies and Limelight Networks and another one between McKesson Technologies and Epic Systems.⁹⁵ The Federal Circuit panels for these two cases affirmed the district courts’ respective opinions and emphasized the use of an agency requirement,⁹⁶ but the en banc court reversed and introduced a new avenue for finding liability through § 271(b).⁹⁷

91. *BMC Resources v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007).

92. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008).

93. *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1380 (Fed. Cir. 2010).

94. *See, e.g., Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97–20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999) (“It is true that several district courts have found a party liable for direct infringement of a process patent even where the various steps included in the patent are performed by distinct entities. However, these cases indicate that some connection between the different entities justified that finding.”); *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980) (“When infringement results from the participation and combined action of several parties, they are all joint infringers and jointly liable for patent infringement.”).

95. *McKesson Info. Solutions LLC v. Epic Sys. Corp.*, No. 1:06–CV–2965–JTC, 2008 WL 5054479 (N.D. Ga. Aug. 29, 2008).

96. *McKesson Techs. Inc. v. Epic Sys. Corp.*, No. 2010-1291, 2011 U.S. App. LEXIS 7531, at *1–2 (Fed. Cir. Apr. 12, 2011) (“Because McKesson is unable to attribute the performance of all the steps of the asserted method claims to a single party . . . this court affirms the finding of noninfringement.”); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1319 (Fed. Cir. 2010) (“While control or direction is a consideration, as is the extent to which instructions, if any, may be provided, what is essential is not merely the exercise of control or the providing of instructions, but whether the relationship between the

A. FACTS

Akamai's patent claimed a method for efficient delivery of web content.⁹⁸ The method included the steps of placing content elements on a set of replicated servers and modifying the content provider's web page, so as to instruct web browsers to retrieve that content from those servers.⁹⁹ Limelight maintained a network of servers and uploaded content elements on its servers but did not modify the content provider's web pages itself.¹⁰⁰ Instead, Limelight taught its customers how to perform the last modification step.¹⁰¹

McKesson Information Solutions patented a method covering electronic communication between healthcare providers and their patients.¹⁰² Epic Systems licensed to healthcare organizations its software that included an application, which allowed healthcare providers to communicate electronically with patients.¹⁰³ Epic did not perform any steps of the claimed method; instead, those steps were divided between patients, who initiated communications, and healthcare providers, who performed the remaining steps.¹⁰⁴

B. THE FEDERAL CIRCUIT'S PANEL HOLDINGS

For the dispute between Akamai and Limelight, the Federal Circuit panel did not address the propriety of the single-entity rule but simply applied it.¹⁰⁵ The panel clarified the rule, stating: "[W]hat is essential 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."¹⁰⁶ The panel concluded that because the relationship between Limelight and its customers did not meet such a standard, Limelight was not

parties is such that acts of one may be attributed to the other. Implicit in this court's holdings in *BMC Resources* and *Muniauction* is that the performance of a method step may be attributed to an accused infringer when the relationship between the accused infringer and another party performing a method step is that of principal and agent, applying generally accepted principles of the law of agency as explicated by the Supreme Court and the Restatement of Agency.").

97. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1306 (Fed. Cir. 2012).

98. *Id.*

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.*

105. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1320–21 (Fed. Cir. 2010).

106. *Id.* at 1319.

liable under the doctrine of joint infringement.¹⁰⁷ Adopting a similar reasoning, a different Federal Circuit panel held that Epic was not liable for infringement of McKesson's patent.¹⁰⁸

C. THE FEDERAL CIRCUIT'S EN BANC HOLDING

Although the issue for rehearing en banc was the propriety of the single-entity rule for the doctrine of joint infringement, the en banc Federal Circuit did not elaborate on this issue.¹⁰⁹ Instead, it created a new avenue for finding liability through inducement of infringement under § 271(b).¹¹⁰ The court partially overruled *BMC Resources* and abolished the single-entity rule for the purpose of finding inducement liability but left intact the rule for the doctrine of joint infringement.¹¹¹ Essentially, the court held that to support a theory of inducement of infringement, it does not require a single entity to perform all the steps of a method claim.¹¹² To reach this reading of § 271(b), the court sought support from legislative history, other areas of the law, patent law statutes, precedent, and policy.

The court reviewed the legislative history of the Patent Act of 1952 and stated that the Act provides strong support for interpreting inducement of infringement as not requiring a single entity committing all the acts necessary to constitute infringement.¹¹³ The court cited the statements of Judge Giles Rich, who was one of the principal drafters of the statute and a frequent witness at hearings regarding the Act.¹¹⁴ The court explained that Judge Rich “saw no anomaly in finding liability for indirect infringement when there was ‘obvious infringement of the patent’ even though there was ‘no direct infringer of the patent.’”¹¹⁵

The court also found support for its conclusion in other areas of the law, such as the Federal Criminal Code and the Restatement of Torts, stating that

107. *See id.* at 1322.

108. *McKesson Techs. Inc. v. Epic Sys. Corp.*, No. 2010–1291, 2011 U.S. App. LEXIS 7531, at *1–2 (Fed. Cir. Apr. 12, 2011).

109. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (Newman, J., dissenting).

110. *Id.* at 1306.

111. *Id.*

112. *Id.*

113. *Id.* at 1310.

114. Judge Rich was the vice president of the New York Patent Law Association, which initiated the effort to draft the bill H.R. 5988. *See Contributory Infringement in Patents and Definition of Invention: Hearings on H.R. 5988, 4061, and 5248 Before Subcomm. on Patents, Trade-Marks, and Copyrights of the H. Comm. on the Judiciary*, 80th Cong. 1, 3 (1948) (statement of Earl R. Lewis).

115. *Id.* at 1310–11.

“a principal’s liability for acts committed not only through an agent but also by an innocent intermediary who was induced by the principal is not an idiosyncrasy of patent law,” and “[t]he implication of that principle, as applied [in patent law], is that a party may be liable for inducing infringement even if none of the individuals whose conduct constituted infringement would be liable, as direct infringers, for the act of infringement that was induced.”¹¹⁶

Moreover, the court looked at other subsections of § 271 and noted that “infringement” under these subsections does not necessarily mean infringement under § 271(a).¹¹⁷ The court observed that “nothing in the text of either subsection suggest[ed] that the act of ‘infringement’ required for inducement under section 271(b) must qualify as an act that would make a person liable as an infringer under section 271(a),” and thus the single-entity rule that binds § 271(a) is not necessarily applicable to other parts of § 271.¹¹⁸

Furthermore, by looking to Supreme Court precedent and its own, the Federal Circuit declared that its rule in *BMC Resources* is unwarranted.¹¹⁹ For example, the court explained that although *Dynacore Holdings Corp. v. U.S. Philips Corp.* requires infringement for a finding of inducement of infringement, it does not require a single party to commit that infringement.¹²⁰ The court also explained that *Aro* does not stand for the proposition that liability for inducement requires that a single party be liable for direct infringement.¹²¹ This is partly because the patent at issue in *Aro* involved product claims.¹²² Unlike claimed methods, whenever a claimed product is made, used, or sold, there is always a direct infringer—the entity who completes the product.¹²³ Furthermore, the court pointed out several circuit court cases predating *Aro*, explaining that none of those cases applied the single-entity rule to find liability for inducement of infringement.¹²⁴

Addressing the policy ramifications of the issue, the court reasoned that the “broader proposition [of the single-entity rule] invites evasion of the

116. *Id.* at 1311–13.

117. *Id.* at 1314.

118. *Id.* The court pointed to § 271(e)(2), (f), and (g), and stated that “the statute uses the term ‘infringement’ in a way that is not limited to the circumstances that give rise to liability under section 271(a).”

119. *Id.* at 1315.

120. *Id.* at 1315 (citing *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1372 (Fed. Cir. 2004)).

121. *Id.* at 1315–16. *See also* *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336 (1961).

122. *Akamai*, 692 F.3d at 1316.

123. *Id.* at 1316–17.

124. *Id.*

principles of patent infringement and serves no policy-based purpose.”¹²⁵ The court explained that “[i]f an entity has induced conduct that infringes a patent, there is no justification for immunizing the inducer from liability simply because no single party commits all of the components of the appropriative act.”¹²⁶

In sum, the Federal Circuit held that based on legislative history, other areas of the law, patent law statutes, precedent, and policy, it should eliminate the single-entity rule propounded by *BMC Resources* for the purpose of finding inducement liability.¹²⁷ However, the single-entity rule is still in place for the purpose of applying the doctrine of joint infringement.¹²⁸

III. ANALYSIS OF THE *AKAMAI* RULE

As mentioned above, a loophole in divided infringement law governing method inventions means that society will lose out on the benefits of such inventions. As explained below, the single-entity rule is such a loophole, and the *Akamai* rule provides an adequate fix by allowing patentees of method inventions to reliably catch infringers in situations of divided infringement. However, the majority in *Akamai* was strongly opposed by two dissenting factions, one arguing for the single-entity rule¹²⁹ and the other arguing for the abolishment of it,¹³⁰ suggesting that the *Akamai* rule might not be proper as a matter of law. This Part argues that although the *Akamai* rule reaches an equitable result and is correct in terms of legislative intent, it nevertheless results in inconsistent statutory interpretation. A better approach is to deal directly with the single-entity rule under the doctrine of joint infringement and replace it with a more flexible relationship standard.

A. REACHING AN EQUITABLE RESULT FOR DIVIDED INFRINGEMENT IN *AKAMAI*

The law before *Akamai* left a loophole that failed to reliably prevent divided infringement of method patents. Under *BMC Resources*, multiple entities can only be held liable under § 271(a) when they are essentially a

125. *Id.* at 1315.

126. *Id.*

127. *Id.* at 1306.

128. *Id.* (“Much of the briefing in [cases of divided infringement of method claims] has been directed to the question whether direct infringement can be found when no single entity performs all of the claimed steps of the patent. It is not necessary for us to resolve that issue today because we find that these cases and cases like them can be resolved through an application of the doctrine of induced infringement.”).

129. *See id.* at 1337–51 (Linn, J., dissenting).

130. *See id.* at 1319–36 (Newman, J., dissenting).

single entity because of the strong relationship between them.¹³¹ Although the indirect infringement statutes provide additional protection, they require an underlying act of infringement under § 271(a). However, since § 271(a) was restricted under *BMC Resources* to only cover entities that met the single-entity rule, this underlying act had to be committed by entities that met the same strong relationship requirement. Thus, a patentee of a method invention was often left without recourse under § 271(a)–(c). As acknowledged by the Federal Circuit itself in *BMC Resources*, “the standard requiring control or direction for a finding of joint infringement may in some circumstances allow parties to enter into arms-length agreements to avoid infringement.”¹³²

Such a deficiency may lead to severe consequences, especially for many high-tech industries, such as the software industry and the biotechnology industry. For companies in these industries, an innovative method containing steps performed by more than one entity can easily be replicated by a competitor without infringing the corresponding patent. For instance, many software methods, especially those implemented through the Internet and involving a host server and an end user, share such a characteristic. Amazon.com’s patent covering its 1-Click purchasing method is an example.¹³³ Claim 1 of the patent contains, *inter alia*, two steps for a client system and two other steps for a server system.¹³⁴ Similarly, medical diagnostics patents held by biotechnology companies often involve a method that contains steps such as data gathering, analysis, correlation, and treatment with a drug in the end. Typically, such steps are carried out by different parties, such as a diagnostics laboratory that performs the analysis, a pharmaceutical company that provides the drug, and a physician that collects the data and provides treatment.¹³⁵

131. *BMC Resources v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007).

132. *Id.* at 1381.

133. *See* U.S. Patent No. 5,960,411 (filed Sept. 12, 1997).

134. *Id.* col. 10. The two steps for the client systems are “displaying information identifying the item” and “in response to only a single action being performed, sending a request to order the item along with an identifier of a purchaser of the item to a server system.” The two steps for the server systems are “receiving the request” and “retrieving additional information previously stored for the purchaser identified by the identifier in the received request.” *Id.*

135. *See, e.g.*, U.S. Patent No. 8,287,869 (filed Jan. 7, 2009) (claiming a method that comprises a step of measuring a patient’s level of an intercellular signaling molecule, which is typically performed by a physician and a diagnostics laboratory, and a step of treating the patient with an antibody, which is usually provided by a pharmaceutical company and administered by the physician).

Some commentators have proposed a solution that has been widely adopted by patent prosecutors: describing such inventions in “unitary claims,” claims in which all the steps are illustrated from the perspective of one entity.¹³⁶ Also, the Federal Circuit noted in *BMC Resources*: “The concerns over a party avoiding infringement by arms-length cooperation can usually be offset by proper claim drafting. A patentee can usually structure a claim to capture infringement by a single party.”¹³⁷ However, this solution assumes that for every type of method claim, there is a “hub”—an actor for at least one of the claimed steps that interacts with other actors for all the remaining steps, so that the remaining steps can be written from the perspective of the hub. This is not true for many types of patents. For example, a distributed computing system can involve server A communicating to server B, server B communicating to server C, and so on, without having a central server that is involved in every step of a claimed method, either at the transmitter or recipient end.¹³⁸ In fact, by using the adverb “usually” in the above statement, the Federal Circuit acknowledged there are times when this deficiency cannot be cured by unitary claim drafting.¹³⁹

In terms of practicality, *Akamai* is a clever solution that solves the above problem by opening up another avenue for finding liability—using § 271(b) without requiring the single-entity rule for the underlying infringement. The *Akamai* rule provides a remedy for situations where an entity induces divided infringement by multiple entities with a loose relationship among them, regardless of whether the inducer performs some of the claimed steps itself. Also, the inducer’s intent is a requirement for finding liability under § 271(b). Thus, the *Akamai* rule holds liable entities that knowingly induce infringement of a method claim but leaves unscathed innocent parties that are induced to perform just parts of the claim (such as Internet users who are induced by a corporation to do so).

136. See Lemley, *supra* note 1, at 272. This article provides a comparison between non-unitary and unitary claims for a method. The method involves actions by a client and a server. When the steps “transmitting a request to a server” and “generating at the client a unique client key” are respectively changed to “receiving a request from a client” and “receiving from the client a unique client key,” the method is described from the standpoint of the server. Thus, when a server company performs these steps, it infringes regardless of the relationship between the company and the client.

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

138. See, e.g., U.S. Patent No. 7,103,640 (filed Sept. 13, 2000) (claiming a method for retrieving data location information that involves transmitting a request from a client to a first server, and if necessary, from the first server to a second server, and so on until the purpose of the method is achieved).

139. See *BMC Resources*, 498 F.3d at 1381.

B. THE LEGAL PROPRIETY OF THE *AKAMAI* RULE

Despite the practicality of the *Akamai* rule, it is questionable as a matter of law. Under *Akamai*, a court uses § 271(b) to hold an entity liable for divided infringement of a method claim. This approach differs from the doctrine of joint infringement, under which courts use § 271(a) to find liability. To analyze *Akamai*, this Section first takes a step back and inquires whether the majority's use of § 271(b) in situations of divided infringement is correct. It concludes that it is because such usage is what Congress envisioned in the Patent Act of 1952. Nevertheless, this Section subsequently argues that without overturning the single-entity rule for the doctrine of joint infringement, the majority cannot ignore the single-entity rule only in the limited situation of the *Akamai* rule. Doing so leads to inconsistent statutory interpretation.

1. *Using § 271(b) Instead of § 271(a) to Capture Divided Infringement*

Under the doctrine of joint infringement, liability for divided infringement of method patents is found under § 271(a). However, one cannot help but wonder why § 271(a), instead of § 271(b) or § 271(c), is used for such a purpose—especially given that the purpose of H.R. 5988, the bill that initially introduced the precursors to § 271(b)–(c) but not § 271(a), was to “provide for the protection of patent rights where enforcement against direct infringers is impracticable”¹⁴⁰ In fact, divided infringement of method patents was an issue considered by the drafters of this bill, the New York Patent Law Association. In a memorandum to Congress, the Association stated:

Improvements in such arts as radio communication, television, etc., sometimes involve the new combination of elements which in use are normally owned by different persons. Thus a new method of radio communication may involve a change in the transmitter and a corresponding change in the receiver. To describe such an invention in patent claims, it is necessary either to specify a new method which involves both transmitting and receiving, or a new combination of an element in the receiver and an element in the transmitter. There are patents with such claims covering television inventions of importance.¹⁴¹

140. *Contributory Infringement in Patents and Definition of Invention: Hearings on H.R. 5988, 4061, and 5248 Before Subcomm. on Patents, Trade-Marks, and Copyrights of the H. Comm. on the Judiciary*, 80th Cong. 1 (1948) (statement of Earl R. Lewis).

141. *Id.* at 5.

Moreover, other facts also indicate that Congress intended for § 271(b)–(c), but not § 271(a), to be used for divided infringement. For example, the precursory paragraph to § 271(a) did not even exist when H.R. 5988 was introduced in 1948. Instead, it was introduced in H.R. 9133 in 1950.¹⁴² Moreover, when § 271(a) was eventually codified, Congress stated that it “is not actually necessary because the granting clause creates certain exclusive rights and infringement would be any violation of those rights.”¹⁴³ This statement was corroborated by Judge Rich, who stated: “Paragraph (a) defines direct infringement and is present only for the sake of completeness. We got along without it for 162 years and we could again. Its omission would change nothing.”¹⁴⁴ Given the seeming insignificance of § 271(a), why do courts use this subsection for the doctrine of joint infringement?

An answer to this question lies in the shift in the analytical framework used for finding liability before and after the Patent Act of 1952. Prior to 1952, when infringement was defined as the violation of the statutory patent rights, the courts adopted a straightforward, one-step analysis for finding liability: simply determining who the infringers were. For example, in the earliest contributory infringement case of *Wallace*, the court determined that the oil lamp as assembled by the purchaser infringed the plaintiff’s patent and held that in such a situation where different entities manufacture components that have no use other than being assembled into a patented product, they “all are tort-feasors, engaged in a common purpose to infringe the patent.”¹⁴⁵ Similarly, in *Thomson-Houston Electric Co. v. Ohio Brass Co.*, the Sixth Circuit analogized patent infringement to a trespass under tort law and reasoned that “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.”¹⁴⁶ Also, in *Solva Waterproof Glue Co. v. Perkins Glue Co.*, the Seventh Circuit stated: “[O]ne who makes and sells one element of a patented combination with the intention and for the purpose of bringing about its use in such a combination is guilty of contributory infringement, and is equally liable with him who organizes the complete combination.”¹⁴⁷ In other words, prior to 1952, the courts adopted the tort doctrine of joint and several liability for contributory infringement and found that those who were instrumental in infringement were jointly liable (although the purchasers

142. H.R. 9133, 81st Cong. § 231(a) (1950).

143. H.R. REP. NO. 82-1923, at 9 (1952).

144. Giles S. Rich, *Infringement under Section 271 of the Patent Act of 1952*, 21 GEO. WASH. L. REV. 521, 537 (1953).

145. *Wallace v. Holmes*, 29 F. Cas. 74, 80 (C.C.D. Conn. 1871).

146. *Thomson-Houston Elec. Co. v. Ohio Brass Co.*, 80 F. 712, 721 (6th Cir. 1897).

147. *Solva Waterproof Glue Co. v. Perkins Glue Co.*, 251 F. 64, 73–74 (7th Cir. 1918).

were typically not part of the lawsuits).¹⁴⁸ The courts did not distinguish between a direct infringer and one who contributed to the infringement.¹⁴⁹

The straightforwardness of the pre-1952 test can also be indirectly demonstrated by infringement terminology used by those in the patent field at that time and in Judge Rich's seemingly contradictory statements, as indicated by the *Akamai* majority and Judge Newman's dissent.¹⁵⁰ The majority pointed out that Judge Rich recognized situations where although "there is obvious infringement of the patent, there is no direct infringer of the patent but only two contributory infringers."¹⁵¹ The majority also quoted Judge Rich's statement 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."¹⁵² However, in her dissent, Judge Newman pointed to statements from Judge Rich's later testimony, such as that "[t]he law always has been that, to hold anyone for contributory infringement, there must have been somewhere a direct infringement which was contributed to."¹⁵³

The ostensible contradiction between these statements may have an explanation. Prior to 1952, the terms "infringement" and "direct infringement" were likely used interchangeably to mean "a violation of a patent right." In the Congressional report accompanying H.R. 7794, the bill that eventually introduced § 271, the Committee on the Judiciary stated "Section 271, paragraph (a), is a declaration of what constitutes

148. See *Contributory Infringement in Patents and Definition of Invention: Hearings on H.R. 5988, 4061, and 5248 Before Subcomm. on Patents, Trade-Marks, and Copyrights of the H. Comm. on the Judiciary, 80th Cong. 12 (1948)* (statement of Giles S. Rich) ("Infringement is considered to be a tort and contributory infringement is a specific application to patent law of the law of joint tortfeasor [sic] where two people somehow together create an infringement which neither one of them individually or independently commits.").

149. See, e.g., *Peerless Equip. Co. v. W.H. Miner, Inc.*, 93 F.2d 98, 105 (7th Cir. 1937) (finding the defendant a contributory infringer without determining whether there was a direct infringer); *Westinghouse Elec. & Mfg. Co. v. Precise Mfg. Corp.*, 11 F.2d 209, 211–12 (2d Cir. 1926) (same).

150. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1310–11, 1329 (Fed. Cir. 2012).

151. *Id.* at 1310.

152. *Id.* at 1311.

153. *Id.* at 1329–30. Judge Newman quoted Judge Rich's later testimonies, and argued that the majority quoted Judge Rich's statements out of context. *Id.* See also *Patent Law Codification and Revision: Hearings on H.R. 3760 Before Subcomm. No. 3 of the H. Comm. on the Judiciary, 82nd Cong. 151 (1951)* (statement of Giles S. Rich) ("[W]herever there is contributory infringement there is somewhere something called direct infringement, and to that direct infringement someone has contributed.").

infringement.”¹⁵⁴ On the other hand, Judge Rich described § 271(a) with slightly different terminology, saying “[p]aragraph (a) defines direct infringement”¹⁵⁵ Referring to an act that falls under § 271(a) as both “infringement” and “direct infringement” in these statements demonstrates the interchangeability of these two terms. At the same time, the term “direct infringer” likely meant “a single entity who infringed a patent” and “contributory infringer” meant “one of the two or more entities that collectively infringed a patent.” If, instead, both of these terms meant “one of the two or more entities that collectively infringed a patent,” Judge Rich’s remarks on situations where “there is no direct infringer of the patent but only two contributory infringers” would be self-contradictory.¹⁵⁶

The way these terms were used and Judge Rich’s statements indicate that although direct infringement (or simply infringement) is a prerequisite for contributory infringement, a single-entity direct infringer is not a requirement. In other words, in a pre-1952 contributory infringement analysis, once there was a violation of a patentee’s rights, a court did not look for a direct infringer before finding one or more contributory infringers. Instead, the court would perform a simple one-step analysis, i.e., determining who the contributory infringers were. Such an analytical framework was made possible by the patent rights statute before 1952, which conferred to a patentee “the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery.”¹⁵⁷ A violation of that right constituted infringement, even when the violation was perpetrated by two or more entities. In such a situation, there was no statutory requirement to find a direct infringer before finding a contributory infringer, especially given that the tort doctrine of joint and several liability was used to determine the contributory infringer. However, the introduction of § 271(a) changed this dynamic.

As mentioned above, the precursor to § 271(a) was not introduced until two years after the indirect infringement statutes were proposed.¹⁵⁸ Also, Congress viewed § 271(a) as unnecessary,¹⁵⁹ almost as if it was an afterthought instead of a well-contemplated basis that was required for a

154. H.R. REP. NO. 82-1923, at 9 (1952).

155. Rich, *supra* note 144, at 537.

156. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1310–11 (Fed. Cir. 2012).

157. Patent Act of 1836, ch. 357, § 5, 5 Stat. 117 (1836).

158. *See* H.R. 5988, 80th Cong. §§ 1–5 (1948); H.R. 9133, 81st Cong. § 231(a) (1950).

159. *See* H.R. REP. NO. 82-1923, at 9 (1952) (stating that § 271(a) is “not actually necessary because the granting clause creates certain exclusive rights and infringement would be any violation of those rights”).

finding of indirect infringement. Although § 271(a) was intended to mirror the exclusionary rights conferred to a patentee, Congress likely failed to consider that while the old patent statute merely mentioned *what* cannot be done except by a patentee (“making, using, and vending”),¹⁶⁰ § 271(a) introduced the additional complexity of *who* cannot do these acts (“whoever without authority makes, uses, offers to sell, or sells . . . or imports”).¹⁶¹ This additional complexity subtly changed the analytical framework for indirect infringement.

As explained in Section III.B.2, *infra*, a finding of inducement or contributory infringement requires an underlying act of infringement by individuals not authorized to do those acts under § 271(a).¹⁶² In effect, this changed the analytical framework into a two-step analysis: First, a court finds the infringer under § 271(a); second, the court then determines whether someone induced or contributed to that infringement under § 271(b) or § 271(c) and finds this additional indirect infringer.¹⁶³

For a product claim, divided infringement easily fits into this framework. For example, in *Fromberg*, the Fifth Circuit found that the defendant’s customer car dealers infringed the plaintiff’s patent before finding the defendant liable for inducing infringement under § 271(b).¹⁶⁴ Also, in *Aro*, the central issue was whether the car owners who bought the replacement fabric from the accused contributory infringer actually infringed the patent.¹⁶⁵ In other words, the Court was trying to find an infringer under § 271(a) as a prerequisite for finding a contributory infringer under § 271(c). When there is infringement of a product claim, there is always a single entity that is the

160. Patent Act of 1836, ch. 357, § 5, 5 Stat. 117 (1836).

161. 35 U.S.C. § 271(a) (2006).

162. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961) (“[I]t is settled that if there is no direct infringement of a patent there can be no contributory infringement.”).

163. Judge Rich likely recognized this analytical framework shift in his 1953 article on infringement under the Patent Act of 1952:

Active inducement implies that there is not a *direct* infringement by the one doing the inducing and that the direct infringement was by another. In suing a direct infringer one would not have recourse to paragraph (b). Reliance on paragraph (b) as a basis for liability is in itself a clear indication that the party held liable is not a *direct* infringer and if he is to be called any kind of an infringer there is no applicable recognized term except “contributory infringer.”

Rich, *supra* note 144, at 537.

164. *Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 413 (5th Cir. 1963).

165. *Aro*, 365 U.S. at 339, 341 (stating as a principle issue: “[D]oes the car owner infringe (and the supplier contributorily infringe) the combination patent when he replaces the spent fabric without the patentee’s consent?”).

infringer under § 271(a) because the completed product has to be made, used, or sold by someone to constitute infringement.

On the other hand, divided infringement of a method claim presents a different scenario, difficult to fit into this new analytical framework. When a court starts the first step of the analysis, § 271(a) is sufficient for finding liability if the term “whoever” is construed to encompass the two or more entities that collectively perform the claimed method. Thus, there is no need to enter the second step of the analysis to find liability under § 271(b). It is likely because of this that in many of the early cases under the doctrine of joint infringement, the courts resorted to the pre-1952 one-step analysis for finding infringement instead of using the new two-step analysis.¹⁶⁶ In other words, for divided infringement of a method claim, the two-step analysis that was supposed to be used under § 271 was collapsed into a one-step analysis similar to that used before the Patent Act of 1952.

For example, in *Metal Film*, the defendant performed all but one of the claimed steps, which was outsourced to outside suppliers.¹⁶⁷ Nevertheless, without discussing whether there existed a single entity that performed all the claimed steps or whether the defendant could be liable as an inducer, the court simply stated that the defendant could not mitigate its infringement liability by using outside suppliers to perform one of the claimed steps.¹⁶⁸ Similarly, in *W. R. Grace*, the defendant used the steps of the claimed method to partially manufacture catalysts, but did not perform the final steps needed to complete the manufacture.¹⁶⁹ Instead, the defendant’s customers performed those steps when they used the catalysts.¹⁷⁰ The court held that the defendant was a direct infringer by “[making] 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.”¹⁷¹ This type of reasoning was explicitly pointed out in *Shields*,

166. *See, e.g.*, *Shields v. Halliburton Co.*, 493 F. Supp. 1376 (W.D. La. 1980) (finding that the defendants singularly and jointly infringed without discussing indirect infringement).

167. *Metal Film Co. v. Metlon Corp.*, 316 F. Supp. 96, 110 (S.D.N.Y. 1970)

168. *Id.* at 111.

169. *Mobil Oil Corp. v. W. R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973)

170. *Id.*

171. *Id.* In addition to finding joint infringement, the court also found inducement liability with regard to other method claims that were performed entirely by the defendant’s customers. *Id.* at 254. As stated by the court:

Defendant’s customers . . . followed the instructions and requirements of [plaintiff’s claims] in the catalytic cracking of gas oil to produce gasoline commercially. [Defendant] had knowledge of its customers’ practices in this respect and indemnified its customers with respect thereto.

where the court referenced early twentieth century common law and stated: “When infringement results from the participation and combined action of several parties, they are all joint infringers and jointly liable for patent infringement.”¹⁷² Even though the court also briefly discussed the law with regard to inducement, it nevertheless found that the claimed methods were “singularly and jointly infringed” by the defendants.¹⁷³

Nevertheless, there were still cases where the courts performed the two-step analysis. For example, in *E.I. DuPont*, the defendant performed the first step of the plaintiff’s claimed method and sold the results to its customers to complete the remaining steps.¹⁷⁴ Instead of holding the defendant liable under § 271(a), the court found that the customers were the infringers because they performed all but one step of the claimed method, and that the defendant was liable as an indirect infringer.¹⁷⁵ On the other hand, *Free Standing Stuffer, Inc. v. Holly Development Co.* involved a different situation—the defendant itself did not perform any of the claimed steps. The defendant gave orders through its advertising agency, a separate company, to printing companies and newspaper companies, who collectively performed all the steps of the plaintiff’s claim on a method for direct response advertising.¹⁷⁶ The court found that since the defendant “by its various acts actively induced the acts of the printer, the newspapers and others who carried out specific steps of the [claimed] method,” it was “liable as an infringer for having actively induced infringement of the patent under 35 U.S.C. § 271(b).”¹⁷⁷ *Faroudja* also involved a similar situation. The defendant was accused of inducing its customers to use its television line doublers in a manner that, combined with steps done by third parties, amounted to performance of all the claimed steps of the plaintiff’s patent.¹⁷⁸ However, the court found that the relationship between the customers and the third parties was not sufficient to warrant a determination of underlying direct infringement to

Defendant actively induced these acts of infringement by its customers and contributed to that infringement.

Id.

172. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980).

173. *Id.*

174. *E.I. DuPont De Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 734 (D. Del. 1995).

175. *Id.* at 735, 737.

176. *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, No. 72 C 1070, 1974 WL 20219, at *14 (N.D. Ill. Dec. 24, 1974).

177. *Id.*

178. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97–20010 SW, 1999 WL 111788, at *6 (N.D. Cal. Feb. 24, 1999).

support the plaintiff's claim of inducement.¹⁷⁹ Notwithstanding these isolated instances where courts assessed liability based on indirect infringement, since the turn of the millennium, courts have consistently shied away from this two-step approach when they discussed the issue of divided infringement of method claims.¹⁸⁰

In *Cordis Corp. v. Medtronic AVE, Inc.*, the court examined the relationship between a medical device company and physicians and assessed whether their acts added up to direct infringement under § 271(a).¹⁸¹ The court stated: “To constitute a predicate act of direct infringement of a method claim, either a single entity must perform every step of the method or, if two or more entities perform different steps of the method, those entities must have some connection to each other.”¹⁸² Similarly, in *Marley Mouldings Ltd. v. Mikron Industries, Inc.*, the court held that an entity could directly infringe a method patent even where the various steps of the patent were performed by distinct entities, as long as there was “some connection between the entities performing the steps.”¹⁸³ As the court in *Applied Interact v. Vermont Teddy Bear Co.* noted: “[D]irect infringement may be sustained when a method claim is performed by connected entities and particularly where the patent contemplates action by at least two actors.”¹⁸⁴ Subsequently, *On Demand*,¹⁸⁵ *BMC Resources*,¹⁸⁶ *Muniauction*,¹⁸⁷ and *emsCharts*¹⁸⁸ all determined liability based on direct infringement by different entities.

In sum, the enactment of § 271 changed the analytical framework for finding indirect infringement by introducing a two-step analysis. However, because of the way § 271(a) is written, many courts inadvertently resorted to the one-step analysis under the old regime for divided infringement of

179. *Id.* at *6–7.

180. *See, e.g.*, *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007) (assessing direct instead of indirect infringement); *Applied Interact, LLC v. Vermont Teddy Bear Co.*, No. 04 Civ. 8713 HB, 2005 WL 2133416, at *4 (S.D.N.Y. Sept. 6, 2005) (same); *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 350 (D. Del. 2002) (same).

181. *Id.* at 349.

182. *Id.*

183. *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *2 (N.D. Ill. Apr. 30, 2003).

184. *Applied Interact, LLC v. Vermont Teddy Bear Co., Inc.*, No. 04 Civ. 8713 HB, 2005 WL 2133416, at *5 (S.D.N.Y. Sept. 6, 2005).

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

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

187. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008).

188. *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1381 (Fed. Cir. 2010).

method claims. In this regard, the *Akamai* majority is correct in using § 271(b) to find liability for the divided infringement issues before the court. Also, for the two-step analytical framework to properly cover divided infringement of method claims, and for § 271(a) to mirror the rights conferred to a patentee, Congress likely intended that the underlying infringement for § 271(b) need not be committed by a single entity. Thus, the *Akamai* majority is also correct in this regard in abolishing the single-entity rule for the purpose of finding inducement liability.

2. *Bypassing the Single-Entity Rule When Using § 271(b)*

Although the *Akamai* rule is correct in terms of patent policy and its use of § 271(b) as intended by Congress, it nevertheless has a legal deficiency. Even though the Federal Circuit held that for the purpose of finding inducement liability, there is no requirement for the single-entity rule between the induced entities,¹⁸⁹ it left intact this requirement for the purpose of applying the doctrine of joint infringement.¹⁹⁰ As explained below, this failure to completely abolish the single-entity rule results in inconsistent statutory interpretation. To support the new rule it created, the majority argued that the required underlying infringement for § 271(b) does not have to be infringement under § 271(a)¹⁹¹ but statutory construction and binding precedents show otherwise, as discussed below. Thus, inconsistent statutory interpretation results when the court requires the single-entity rule for the doctrine of joint infringement under § 271(a) but ignores the same rule solely for the purpose of reading § 271(a) through § 271(b) when finding inducement liability. Doing so means that the term “whoever” in § 271(a) is read narrowly in the former situation (the single-entity rule applies to “whoever”) but is read broadly in the latter situation (no relationship is required), resulting in an impermissible inconsistent reading of the same statutory term.

Courts should begin statutory interpretation by looking at “the language [of the statute] itself,”¹⁹² i.e., by simply reading the plain meaning of the statute. Only when the statutory language fails to provide a clear meaning

189. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012).

190. *Id.*

191. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1314 (Fed. Cir. 2012) (“[N]othing in the text of either subsection [(a) or (b)] suggests that the act of ‘infringement’ required for inducement under section 271(b) must qualify as an act that would make a person liable as an infringer under section 271(a).”).

192. *United States v. James*, 478 U.S. 597, 604 (1986).

should legislative history be used in deciphering legislative intent.¹⁹³ Policy considerations come last in statutory interpretation, and their use is controversial.

Here, a reading of the statute supports the requirement that inducement under § 271(b) be based upon § 271(a). As discussed earlier, § 271(a) states “whoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent,”¹⁹⁴ while § 271(b) states “[w]hoever actively induces infringement of a patent shall be liable as an infringer.”¹⁹⁵ Based on the “normal rule of statutory construction that identical words used in different parts of the same act are intended to have the same meaning,”¹⁹⁶ a rule that also applies to different grammatical forms of the same word,¹⁹⁷ “infringement” under § 271(b) means the actions performed by whoever “infringes” a patent under § 271(a). Further, even though the majority argued that § 271(e)(2), (f), and (g) indicated that the term “infringement” could be defined “in a way that is not limited to the circumstances that give rise to liability under § 271(a)”¹⁹⁸ and thus § 271(b) should not be grounded within § 271(a), these subsections point to the opposite conclusion. The conclusion is that “when Congress intended to cover acts not encompassed within the traditional definition of infringement, it knew how to create an alternative definition thereof.”¹⁹⁹ For example, § 271(a) specifies that the making, using, offering to sell, selling, and importing a patented invention “infringes the patent.”²⁰⁰ Similarly, § 271(e)(2) enumerates situations that go beyond uses reasonably related to the development and submission of information to the FDA, and thus constitute “an act of infringement.”²⁰¹ On the other hand, § 271(b), (c), (f) and (g) explain situations where an entity will be “liable as an infringer” if it facilitates “infringement.”²⁰² These distinctions demonstrate that Congress knew which sections define infringement and which ones

193. *See* *Ardestani v. INS*, 502 U.S. 129, 135–36 (1991) (“[T]he ‘strong presumption’ that the plain language of the statute expresses congressional intent is rebutted only in ‘rare and exceptional circumstances,’ when a contrary legislative intent is clearly expressed.” (citations omitted)).

194. 35 U.S.C. § 271(a) (2006).

195. 35 U.S.C. § 271(b) (2006).

196. *Sullivan v. Stroop*, 496 U.S. 478, 484 (1990) (internal quotation marks omitted).

197. *See, e.g., Taniguchi v. Kan Pac. Saipan, Ltd.*, 132 S. Ct. 1997, 2004 (2012) (construing the term “interpreter” in one part of a statute to have a meaning consistent with the term “interpretation” in another part of the statute).

198. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1314 (Fed. Cir. 2012).

199. *Id.* at 1343 (Linn, J., dissenting).

200. 35 U.S.C. § 271(a) (2006).

201. 35 U.S.C. § 271(e)(2) (2006).

202. 35 U.S.C. § 271(b)–(c), (f)–(g) (2006).

define indirect liability, i.e., when an actor is “liable as an infringer.” Since only § 271(a) and (e)(2) define infringement, and § 271(e)(2) is irrelevant to divided infringement of method claims, only the language in § 271(a) is relevant to the issue raised in *Akamai*.

Moreover, the proposition that § 271(b) must be predicated upon § 271(a) is still supported by legislative history even if, *arguendo*, it is not supported by a plain reading of § 271. In the Congressional report accompanying H.R. 7794, the eventual bill that introduced § 271, the Committee on the Judiciary stated, “Section 271, paragraph (a), is a declaration of what constitutes infringement.”²⁰³ Thus, it is clear that when § 271(b) states that “[w]hoever actively induces infringement of a patent shall be liable as an infringer,” the term “infringement” is “infringement under § 271(a).” As one commentator noted, perhaps because § 271 was drafted by patent lawyers, its structure resembles an independent claim and its dependent claims.²⁰⁴ By this rationale, § 271(b) cannot be met unless § 271(a) is met—there can be no inducement liability without infringement under § 271(a).

Furthermore, Supreme Court precedent also dictates that direct infringement under § 271(a) is a requirement for indirect infringement liability. In *Global-Tech Appliances, Inc. v. SEB S.A.*, the Court stated that inducement of infringement under § 271(b) means that “[an] inducer lead[s] another to engage in conduct that happens to amount to infringement, i.e., the making, using, offering to sell, selling, or importing of a patented invention” under § 271(a).²⁰⁵ Similarly, in *Aro*, the Court reasoned that the defendant may be liable for indirect infringement “if, but only if, [the defendant’s customer’s action] would in itself constitute a direct infringement under § 271(a).”²⁰⁶

Therefore, inducement liability under § 271(b) must be predicated upon infringement under § 271(a). However, the *Akamai* rule cannot be squared with this rule because they culminate in inconsistent statutory interpretation. Under the *Akamai* rule, there will be situations where an entity is liable under § 271(b) for inducing the concerted action of loosely connected entities. Nevertheless, the action of such entities might not constitute infringement

203. H.R. REP. NO. 82-1923, at 9 (1952).

204. Charles W. Adams, *A Brief History of Indirect Liability for Patent Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 369, 386 (2006).

205. *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2065 (2011).

206. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961). Although the Supreme Court discussed this rule in the context of contributory infringement under § 271(c), it also applies to inducement, for both types of indirect infringement deal with acts that promote “infringement.” *Id.*; 35 U.S.C. § 271(b)–(c) (2006).

under § 271(a) because of the entities' failure to meet the single-entity rule, which is still a requirement for the sole purpose of finding infringement under § 271(a). If the single-entity rule is not a requirement when reading § 271(a) through the lens of § 271(b), as held by the *Akamai* majority, "whoever" in § 271(a) may be read broadly as "entities that have no relationship whatsoever." However, the continued existence of the single-entity rule for the sole purpose of applying the doctrine of joint infringement under § 271(a) means that the term "whoever" is read narrowly as "entities who have a 'direction or control' or agency relationship among them." This directly contradicts Supreme Court precedent that the same term within a statute must be read in a consistent manner,²⁰⁷ and is thus clearly impermissible.

C. LOWERING THE RELATIONSHIP STANDARD FOR THE DOCTRINE OF JOINT INFRINGEMENT

As explained above, the single-entity rule cannot be eliminated solely for the purpose of finding liability under § 271(b). However, if the single-entity rule were completely abolished, § 271(a) would be unduly augmented to cover unrelated entities that coincidentally perform all the steps of a method claim. Thus, the current statutory framework is imperfect for capturing divided infringement of method claims. Nevertheless, it is still desirable to have divided infringement law that reliably covers all situations in which a patentee's right is violated. Under such statutory constraints, a rule that reaches the same equitable result as the *Akamai* rule but avoids the problem of inconsistent statutory interpretation is the adoption of a looser but consistent relationship standard for both reading § 271(a) on its own and reading § 271(a) for the purpose of applying § 271(b).

Two good alternatives to the "direction or control" standard or single-entity rule are the "participation and combined action" standard adopted in *Shields*²⁰⁸ or the similar "some connection" standard espoused in *Faroudja*.²⁰⁹

207. *Ratzlaf v. United States*, 510 U.S. 135, 143 (1994) ("A term appearing in several places in a statutory text is generally read the same way each time it appears. We have even stronger cause to construe a single formulation . . . the same way each time it is called into play.") (citations omitted). In *Ratzlaf*, the Court refused to construe the term "willfully violating" in 31 U.S.C. § 5322(a) variably when § 5332(a) referred to different criminal statutes. *See also* *Reno v. Bossier Parish Sch. Bd.*, 528 U.S. 320, 329–30 (2000) (refusing to "adopt a construction that would attribute different meanings to the same phrase in the same sentence, depending on which object it is modifying"); *Brown v. Gardner*, 513 U.S. 115, 118 (1994) (stating that the "presumption that a given term is used to mean the same thing throughout a statute" is "surely at its most vigorous when a term is repeated within a given sentence").

208. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980).

The benefit of these standards is their flexibility. In situations of divided performance of a claimed method, these standards do not rigidly require a court to find liability only when the relationship between entities approximates that of agency. As shown by the courts that applied these standards in cases such as *Shields*,²¹⁰ *Cordis*,²¹¹ *Marley Mouldings*,²¹² and *Vermont Teddy Bear*,²¹³ they are flexible enough to give a court discretion in determining whether the level of cooperation between the defendants amounts to divided infringement. Also, because of their flexibility, these standards also have the benefit of holding an entity liable when it induces divided infringement by other loosely connect entities while keeping its hands off the claimed steps. Moreover, a flexible rule is in line with patent law precedent from the Supreme Court, which typically favors flexibility over rigid bright-line rules.²¹⁴

A great concern by those advocating a tighter relationship standard such as the single-entity rule is the possible liability on the innocently induced. However, such fear is unwarranted. If the innocently induced are individuals, a patentee will not bring suit for they are not cost-effective litigation targets or are likely to be constituents of the patentee's market, such as Internet users or doctors. If the innocently induced are more sophisticated parties such as corporations, they can incorporate an indemnification clause in their business contract with an entity that is later found to have induced it to perform some steps of a claimed method. Moreover, even if a patentee brings suit against an innocent party, a court will have the leeway under these flexible standards to deny relief altogether, reminding the patentee that it is

209. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999).

210. *Shields*, 493 F. Supp. at 1389.

211. *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 349-50 (D. Del. 2002).

212. *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *2 (N.D. Ill. Apr. 30, 2003).

213. *Applied Interact, LLC v. Vermont Teddy Bear Co., Inc.*, No. 04 Civ. 8713 HB, 2005 WL 2133416, at *4-5 (S.D.N.Y. Sept. 6, 2005).

214. *See, e.g.*, *Bilski v. Kappos*, 130 S. Ct. 3218, 3226-27 (2010) (rejecting the "machine-or-transformation" test as the only touchstone for subject matter eligibility for method inventions); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007) (rejecting rigid application of the "teaching, suggestion, or motivation" test for determining obviousness); *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 393-94 (2006) (rejecting default permanent injunctions upon a finding of infringement); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 737-38 (2002) (rejecting absolute bar to the doctrine of equivalents by prosecution history estoppel); *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) (rejecting a rigid rule that an invention cannot be "on sale" under 35 U.S.C. § 102(b) until it has been reduced to practice).

improper to bring suit against entities that are induced by no fault of their own.

IV. CONCLUSION

Under our imperfect statutory framework for capturing patent infringement, the single-entity rule is a loophole in the law that must be fixed. Without reliable enforcement of patent rights, society is bound to lose out on the benefits of certain inventions. We might be uncertain of the importance of such inventions or their potential for future growth, but that is precisely why we should protect them. As the Supreme Court emphasized in *Diamond v. Chakrabarty*, the inventions “most benefitting mankind” are the ones that we cannot foresee.²¹⁵ In *Akamai*, the Federal Circuit created a new rule that reaches this equitable result by applying § 271(b) as intended by Congress. Nevertheless, this rule is impermissible because it results in inconsistent statutory interpretation. A better approach is to deal directly with the single-entity rule under § 271(a) and lower the relationship requirement for the doctrine of joint infringement to the flexible “participation and combined action” standard or “some connection” standard. These standards can cure the deficiency of the single-entity rule while giving courts sufficient discretion to shield innocently induced parties from infringement liability.

215. *Diamond v. Chakrabarty*, 447 U.S. 303, 316 (1980).

