
Patent Law—Divided Infringement of Method Claims: Federal Circuit Broadens Direct Infringement Liability, Retains Single Entity Restriction—*Akamai Technologies, Incorporated v. Limelight Networks, Incorporated*, 797 F.3d 1020 (Fed. Cir. 2015).

Infringement of patent claims is a statutory tort.¹ The United States Code governs direct infringement under 35 U.S.C. § 271(a), which encompasses infringement of both apparatus and method claims.² Infringement of a method claim requires its use by the performance of each step of the claimed method.³ In *Akamai Technologies, Inc. v. Limelight Networks, Inc.*,⁴ the Court of Appeals for the Federal Circuit addressed the issue of liability for divided infringement of method claims.⁵ Specifically, the court addressed whether a defendant, in an arms-length relationship with a third party, can be liable for direct infringement when it performs some steps of a method claim and the third party performs the remainder of the steps.⁶ The court held the defendant liable for direct infringement because the third party's actions are attributable to the defendant, but the court also maintained that only single entities can be liable for direct infringement.⁷

In 2006, Akamai Technologies, Inc. (Akamai) and the Massachusetts

1. See 35 U.S.C. § 271 (2012) (codifying patent infringement); see also *N. Am. Philips Corp. v. Am. Vending Sales, Inc.*, 35 F.3d 1576, 1578-79 (Fed. Cir. 1994) (referring to tort of patent infringement as creation of federal statute, not common law).

2. See 35 U.S.C. § 271(a) (2012) (applying to any patented invention, including apparatus and method claims). This statute provides that “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.” *Id.*

3. See *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993) (explaining direct infringement of method claim occurs only upon performance of method); see also *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317 (Fed. Cir. 2005) (defining process as consisting of doing something, requiring carrying it out or performing). The Federal Circuit construed using a process “within the United States,” an element of Section 271(a), as requiring the performance of each of the steps within this country. *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005).

4. 797 F.3d 1020 (Fed. Cir. 2015).

5. See *id.* at 1022 (noting en banc court set forth law of divided infringement under 35 U.S.C. § 271(a)).

6. See *id.* at 1024 (indicating defendant's customers performed some steps of claimed methods); see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 910 (Fed. Cir. 2015) (referring to arms-length seller-customer relationships), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). The district court previously found that the content delivery service agreements between Limelight and its customers were the result of arms-length contract negotiation, with no suggestion to the contrary. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 122 (D. Mass. 2009), *rev'd*, 797 F.3d 1020 (Fed. Cir. 2015).

7. See 797 F.3d at 1022, 1025. The court held Limelight liable for direct infringement, relying on substantial evidence that Limelight performed or controlled its customers' performance of all steps of the claimed methods. *Id.* at 1025. The court also explained that if multiple actors are involved in practicing the steps of a claimed method, a court must determine whether the acts are attributable to one actor such that a single entity is responsible for the infringement. *Id.* at 1022.

Institute of Technology (MIT) filed a patent infringement action against Limelight Networks, Inc. (Limelight).⁸ The lawsuit included allegations of infringement of U.S. Patent No. 6,108,703 ('703 patent), assigned to MIT and exclusively licensed to Akamai.⁹ Method claims of the '703 patent comprise steps for faster delivery of content over the Internet via a content delivery network (CDN), and involve "tagging" selected content for delivery via the CDN rather than via a content provider's servers.¹⁰ At trial, a jury found that Limelight infringed claimed methods of the '703 patent in collaboration with its content provider customers who performed the "tagging" step.¹¹ Following this verdict, the Court of Appeals for the Federal Circuit held in another case that a method claim can be directly infringed only when all of its steps are performed by or attributable to a single entity, excluding "arms-length collaboration" from the scope of direct infringement liability.¹² In view of this single-entity restriction and limited attribution theory shielding arms-length seller-customer relationships, the district court granted Limelight's motion for judgment of noninfringement as a matter of law.¹³

On appeal, a Federal Circuit panel decision affirmed that Limelight is not liable for direct infringement because it did not perform all steps of the claimed methods, and the "tagging" step Limelight's customers performed is not attributed to Limelight.¹⁴ The Federal Circuit sitting en banc, however,

8. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 95, 100 (D. Mass. 2009), *rev'd*, 797 F.3d 1020 (Fed. Cir. 2015).

9. See *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2115 (2014); see also U.S. Patent No. 6,108,703 (filed May 19, 1999).

10. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 916 (Fed. Cir. 2015), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 96-98 (D. Mass. 2009), *rev'd*, 797 F.3d 1020 (Fed. Cir. 2015); see also U.S. Patent No. 6,108,703 (filed May 19, 1999) (claiming methods reciting tagging step for marking content to be delivered via CDN).

11. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 917 (Fed. Cir. 2015) (stating previous ruling Limelight infringed patent), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc); see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 100 (D. Mass. 2009) (noting jury awarded Akamai damages of \$41.5 million), *rev'd*, 797 F.3d 1020 (Fed. Cir. 2015).

12. See *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008). The court explained that in divided infringement situations, where actions of multiple parties combine to practice every step of a claimed method, direct infringement occurs when a single party exercises control or direction over the entire process. *Id.* The mastermind, as the controlling party, will then be responsible for the entire process because every step will be attributable to the controlling party. *Id.* The court also referred to mere arms-length cooperation as being at the other end of the multi-party spectrum and not giving rise to direct infringement by any party. *Id.*

13. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 123 (D. Mass. 2009) (allowing Limelight's motion for judgment as matter of law on basis of noninfringement), *rev'd*, 797 F.3d 1020 (Fed. Cir. 2015). The court explained that agreements between Limelight and its customers resulted from arms-length contract negotiation. *Id.* at 122. The court found Limelight not responsible for the actions of its customers. *Id.* The court applied *Muniauction*, finding that because Limelight did not exercise sufficient direction or control of its customers, Limelight is not liable for direct infringement. See *id.*

14. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1314, 1317 (Fed. Cir. 2010), *vacated*, 419 F. App'x 989 (Fed. Cir. 2011).

reversed the panel's decision, reasoning that although Limelight and its customers did not directly infringe under 35 U.S.C. § 271(a), Limelight may be liable for induced infringement under 35 U.S.C. § 271(b).¹⁵ The United States Supreme Court granted certiorari and held that there cannot be liability for induced infringement under Section 271(b) when no one has directly infringed under Section 271(a) or any other statutory provision.¹⁶ The Supreme Court, however, did not review the merits of who may directly infringe, suggesting that the Federal Circuit may revisit the scope of Section 271(a).¹⁷

Upon remand from the Supreme Court, a divided Federal Circuit panel decided that Limelight did not directly infringe the '703 patent.¹⁸ The majority defended the single-entity restriction under Section 271(a) and reasoned that a customer's actions may not be attributed to Limelight because attribution is limited to agency relationships, contractual agreements to perform, and joint enterprises.¹⁹ By contrast, the dissent argued that Section 271(a) encompasses joint tortfeasor liability.²⁰ The dissent criticized the majority rule because it leaves a "gaping hole" that allows parties to evade liability for infringement of method claims by dividing infringement among multiple parties in arms-length relationships.²¹ On August 13, 2015, the en banc Federal Circuit reversed the panel decision and reinstated the jury verdict that held Limelight liable for direct infringement; this decision expanded the scope of Section 271(a) based on the theory of attribution yet retained the single-entity rule.²²

15. See 35 U.S.C. § 271(b) (2012) (codifying induced infringement). Section 271(b) provides that "[w]hoever actively induces infringement of a patent shall be liable as an infringer." *Id.*; see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (remanding case for further proceedings regarding induced infringement).

16. See *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2119 (2014) (overruling Federal Circuit's 'inducement-only' rule); see also Spencer K. Lickteig, *A Madness to the Method: Fixing the Joint Infringement System for Method Patents After Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 2015 U. ILL. J.L. TECH. & POL'Y 39, 75-81 (2015) (analyzing shortcomings of 'inducement-only' rule Supreme Court reversed).

17. See *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2120 (2014).

18. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 903 (Fed. Cir. 2015), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

19. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 904 (Fed. Cir. 2015), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

20. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 916 (Fed. Cir. 2015) (Moore, J., dissenting), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

21. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 916 (Fed. Cir. 2015) (Moore, J., dissenting), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). Judge Moore asserted that "[t]he single entity rule promulgated in *BMC* and *Muniauction* is a recent judicial creation inconsistent with statute, common law, and common sense." *Id.* Judge Moore also argued that the plain language of Section 271(a) codified joint infringement resulting from the coordinated actions of multiple parties to infringe a patent, which has been historically recognized as giving rise to liability. *Id.* Thus, the single-entity rule created "a loophole where a defendant can collaborate with others to collectively perform every step of the patented process and avoid liability for infringement." Damon Gupta, *Virtually Uninfringeable: Valid Patents Lacking Protection Under the Single Entity Rule*, 94 J. PAT. & TRADEMARK OFF. SOC'Y 61, 68, 74 (2012).

22. See 797 F.3d at 1022 (holding entity responsible for others' performance of steps in two types of

The Patent Act of 1952 defined direct infringement in Section 271(a) and codified indirect infringement through the doctrines of induced and contributory infringement in Sections 271(b) and 271(c), respectively.²³ The language of Section 271 does not explicitly distinguish between apparatus and method claims.²⁴ As applied to infringement of method claims, the language of Section 271(a) has been construed to require the use of the method by performing each of the method's steps within the United States.²⁵ The issue of "whoever" may infringe a method claim as recited in 35 U.S.C. § 271(a), however, has been debated.²⁶ In contrast to apparatus claims where direct infringement may always be attributable to a single entity, performance of method claims may be divided among multiple parties, giving rise to the issue of liability under divided infringement.²⁷

In *BMC Resources, Inc. v. Paymentech, L.P.*,²⁸ the Federal Circuit decided direct infringement requires holding a single entity responsible for the performance of each element of the claimed method.²⁹ If a defendant

circumstances).

23. See Patent Act of 1952, Pub. L. No. 82-593, 66 Stat. 792, 811 (1952). The Patent Act of 1952 revised and codified the patent laws and laws relating to the Patent Office, and enacted title 35 of the United States Code. See *id.* at 792; see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 906 (Fed. Cir. 2015) (characterizing Section 271 as substantive change introduced in 1952 Patent Act), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

24. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 924 n.4 (Fed. Cir. 2015) (Moore, J., dissenting) (arguing language of patent statute does not distinguish between apparatus and method claims), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

25. See *supra* note 3 (outlining construction of Section 271(a) for infringement of method claims); see also 35 U.S.C. § 271(a) (2012) ("whoever without authority . . . uses . . . any patented invention, within the United States . . . during the term of the patent therefor, infringes the patent.").

26. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 907 n.2 (Fed. Cir. 2015) (identifying dispute about who must perform method steps as codified by "whoever" in Section 271(a)), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc); *id.* at 920 (Moore, J., dissenting) (disagreeing with majority's construction of "whoever"); see also *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008) (applying construction of "whoever" as single entity for method claim infringement); *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007) (identifying single-party requirement for method claim infringement).

27. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 910 (Fed. Cir. 2015) (explaining only method claims raise issue of divided infringement), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). Apparatus claims are distinguishable from method claims because the single entity who "combines the last element of an apparatus necessarily, individually, 'makes' the invention." *Id.*

28. 498 F.3d 1373 (Fed. Cir. 2007).

29. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007). The *BMC* court reasoned that the single-entity rule requiring a single party to perform all the steps of a method claim for direct infringement derives from the language of Section 271(a). See *id.* The *BMC* court cited precedent that stated the doctrine of equivalents requires an element-by-element analysis. See *id.* (allegedly citing support for single-entity rule); *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997) (focusing on doctrine of equivalents). It is noted, however, that *Warner-Jenkinson* does not support the single-entity rule of *BMC*. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 917-18 (Fed. Cir. 2015) (Moore, J., dissenting) (criticizing *BMC*'s reliance on *Warner-Jenkinson*), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). The Federal Circuit previously noted that dividing infringement of a patented process or method by having another party perform a step of the process or method cannot avoid infringement liability. See On

participates in infringement without directly infringing the patent, indirect infringement under Sections 271(b) and 271(c) may apply.³⁰ Indirect infringement, however, requires direct infringement under Section 271(a) to occur, thereby ultimately importing the single-entity requirement of direct infringement into any showing of indirect liability.³¹ To address the loophole that allows a party to escape infringement liability by having a third party perform one or more steps of the claimed method, courts have utilized the principle of vicarious liability.³² In *Muniauction, Inc. v. Thomson Corp.*,³³ the Federal Circuit held that in a divided infringement scenario, a method claim is directly infringed under Section 271(a) “only if one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party, i.e., the ‘mastermind.’”³⁴ Further, the court explicitly excluded “arms-length cooperation” of multiple parties from the scope of direct infringement liability, which did not completely patch the divided infringement loophole.³⁵

The “direction or control” standard is based on vicarious liability of one party for the acts of another.³⁶ The standard, however, was often limited to agency relationships and contractual relationships where one party is obligated to perform at least one step of a claimed method.³⁷ For example, in *Golden Hour Data Systems, Inc. v. emsCharts, Inc.*,³⁸ the Federal Circuit affirmed

Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1345 (Fed. Cir. 2006). In *On Demand*, the court categorized infringement resulting from the participation and combined actions of multiple persons or entities as joint infringement, which created joint infringement liability for all participants. See *id.* at 1344-45. The *BMC* court, however, characterized the language used in *On Demand* as dicta that did not change the single-entity rule. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007) (downplaying *On Demand*'s statements concerning joint infringement).

30. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007) (identifying indirect infringement as alternative remedy); see also *supra* note 23 and accompanying text (codifying indirect infringement under Section 271(b) and Section 271(c)).

31. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379 (Fed. Cir. 2007) (importing single-entity requirement into direct infringement); see also *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2115 (2014) (holding Section 271(b) requires direct infringement under Section 271(a)).

32. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379 (Fed. Cir. 2007) (explaining vicarious liability closes loophole); see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 910 (Fed. Cir. 2015) (arguing vicarious liability principles govern Section 271(a)), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008) (identifying accused parties' potential vicarious liability in direct infringement cases).

33. 532 F.3d 1318 (Fed. Cir. 2008).

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

35. See *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008) (maintaining “mere ‘arms-length cooperation’ will not give rise to direct infringement by any party”).

36. See *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008) (explaining relationship between vicarious liability and control or direction standard); see also RESTATEMENT (SECOND) OF AGENCY § 212 cmt. a (AM. LAW INST. 1958) (explaining principal's liability for directing agent's conduct stems from tort principles).

37. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379, 1381 (Fed. Cir. 2007) (referring to principles of agency and contractual relationships).

38. 614 F.3d 1367 (Fed. Cir. 2010), *overruled by* *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797

application of the rules promulgated in *BMC* and *Muniauction*, finding no direction or control, and no vicarious liability, when parties formed a “strategic partnership” and collaborated to practice a patented method.³⁹ Subsequently, in an opinion that conflicts with *Golden Hour*, the Federal Circuit described a joint enterprise as a form of mutual agency included within the scope of vicarious liability.⁴⁰

In *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, the Federal Circuit affirmed the single-entity rule for divided infringement, and identified “direction or control” and joint enterprise as two distinct categories of vicarious liability.⁴¹ The court reasoned that this rule is most consistent with the language of Section 271(a), the statutory context, legislative history, and established precedents.⁴² In establishing joint enterprise liability, the court explicitly overruled the conflicting aspects of *Golden Hour*.⁴³ Further, the court expanded the “direction or control” test beyond agency and contractual relationships to encompass any situation that involves both conditioning participation or a benefit upon the performance of a step, and establishing the manner or timing of performance.⁴⁴ The court applied the expanded “direction or control” standard to find Limelight vicariously liable for direct infringement because Limelight conditioned customers’ use of its CDN upon customers’ performance of the “tagging” step and established the manner or timing of customers’ performance.⁴⁵

F.3d 1020 (Fed. Cir. 2015).

39. See *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1380-82 (Fed. Cir. 2010) (applying reasoning of *Muniauction* and *BMC*), *overruled by* *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 797 F.3d 1020 (Fed. Cir. 2015). Judge Newman dissented, stating that “[t]he parties focused on the ‘control or direction’ criterion as negating joint infringement, for this court has stated, for example in *Muniauction* . . . that there cannot be infringement when entities collaborate to practice a patented invention. Such a universal statement is incorrect.” *Id.* at 1382-83 (Newman, J., dissenting) (citations omitted); see also *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008) (maintaining “‘arms-length cooperation’ will not give rise to direct infringement by any party”); *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379, 1381 (Fed. Cir. 2007) (excluding arms-length business transaction from direct infringement scope for lack of direction or control).

40. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 905, 910-11 (Fed. Cir. 2015) (describing vicarious liability as occurring in principal-agent relationships, contractual relationships, and certain joint enterprises), *reh’g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). Judge Moore noted in a dissenting opinion that a joint enterprise is akin to a joint tortfeasor creating joint and several liability, rather than vicarious liability. *Id.* at 928 n.5. Judge Moore also noted that the new joint enterprise standard contradicts the binding precedent the court established in *Golden Hour*. *Id.* at 931.

41. See 797 F.3d at 1023 (setting forth law of divided infringement under Section 271(a)).

42. See *id.* at 1023 (justifying new divided infringement law as most consistent with various authorities).

43. See *id.* at 1022 n.1 (acknowledging conflict to extent *Golden Hour*’s “strategic partnership” to practice method claim constitutes joint enterprise).

44. 797 F.3d at 1023. The court compared the new “conditioning” and “establishing manner or timing” standard to the Supreme Court opinion in *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005), which stated vicarious liability may exist if a party profits from direct infringement by declining to exercise his or her right to stop or limit the infringement. *Id.*

45. See *id.* at 1024-25 (distinguishing “establishing manner or timing” from merely providing guidance

In affirming the single-entity rule, the court relied exclusively on *BMC* and considered the general principles of vicarious liability for divided infringement; thus, the court effectively excluded any joint and several liability from the scope of direct infringement under Section 271(a).⁴⁶ The court also categorized the joint enterprise prong of divided infringement under vicarious liability, which rather than joint and several liability, would result in infringement by single entities comprising the joint enterprise.⁴⁷ The court did not address arguments against limiting direct infringement to single entities.⁴⁸ The exclusion of joint tortfeasor liability from Section 271(a), however, stems from concern over holding unwitting participants, such as innocent customers, jointly and severally liable for direct infringement.⁴⁹ Further, direct infringement under Section 271(a) is a strict liability offense, and unlike

to independent actors). Limelight provided step-by-step instructions, which its customers must follow to use its CDN, thereby establishing the manner of customers' performance. *Id.*

46. See 797 F.3d at 1022-23 (citing *BMC* and continued reliance on general principles of vicarious liability); see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 916 (Fed. Cir. 2015) (Moore, J., dissenting), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). Judge Moore asserted arguments in support of Section 271(a) codifying joint and several liability rather than being limited to vicarious liability. See *id.*; see also Ben Aiken, Note, *Eliminating the Single-Entity Rule in Joint Infringement Cases: Liability for the Last Step*, 101 VA. L. REV. 193, 213-16 (2015) (discussing shortcomings of *BMC* in supporting single-entity rule); John Lorenzen, Note, *Avoiding the Issue: Limelight Networks, Inc. v. Akamai Techs., Inc.*, 25 DEPAUL J. ART TECH. & INTELL. PROP. L. 183, 198-99 (2014) (identifying single-entity rule as problematic).

47. See 797 F.3d at 1022-23. The court explains that in a joint enterprise each single actor is liable for the steps that another actor in the enterprise performs. See *id.* The court categorizes this as vicarious liability. See *id.* Under vicarious liability, "each [actor] is the agent or servant of the others, and . . . the act of any one within the scope of the enterprise is to be charged vicariously against the rest." RESTATEMENT (SECOND) OF TORTS § 491 cmt. b (AM. LAW INST. 1965); see also *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 928 n.5 (Fed. Cir. 2015) (Moore, J., dissenting) (noting joint enterprise akin to creating joint and several liability, rather than vicarious liability), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc).

48. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 917-20 (Fed. Cir. 2015) (Moore, J., dissenting), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). In the dissenting opinion, Judge Moore outlines various commentators' arguments against the single-entity rule, noting a lack of precedential support. *Id.* at 918. For example, there is no Supreme Court jurisprudence restricting direct infringement to single entities, and prior to the Patent Act of 1952, the common law recognized joint liability. See *id.* at 918, 923. Judge Moore also argues that, considering the plain language of the statute, the term "whoever" in Section 271(a) encompasses multiple entities; Judge Moore relied on various dictionary definitions and on a comparison to other uses of the term "whoever," which is used in a plural sense in other sections of the Patent Act, such as in 35 U.S.C. § 101 in reference to joint inventors. See *id.* at 923. Further, the single-entity rule weakens the patent system by rendering classes of method claims unenforceable and thus worthless. See *id.* at 918-19. Judge Moore also cites the drafting of method claims so as to require joint infringement by multiple parties as evidence against the single-entity requirement. *Id.* at 919.

49. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 905, 913 (Fed. Cir. 2015) (majority opinion) (expressing concern over holding customers jointly and severally liable), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). The majority opinion cites concern over "drastic expansion of predatory customer suits." *Id.* at 913. Further, the majority opinion recognizes that under joint infringement, adding a limitation to an independent method claim in the form of a dependent claim may result in liability of a party performing only that step. *Id.* A dependent claim may thus be infringed separately from any independent claim, a result which conflicts with established precedent that infringement of a dependent claim requires infringement of the independent claim on which it depends. *Id.* at 913-14.

indirect infringement, requires neither knowledge of the patent nor knowledge of harm.⁵⁰ In contrast, joint tortfeasor liability requires knowledge to attribute acts of one party to another, and proponents of joint and several liability maintain that the strict liability nature of Section 271(a) does not conflict with this knowledge requirement.⁵¹

The court's approach of expanding the vicarious liability standard of direct infringement, while maintaining the single-entity rule, effectively addresses divided infringement that leverages arms-length relationships with customers who unwittingly contribute to the infringement.⁵² Accordingly, Limelight, rather than its innocent customers, bears liability as the mastermind of the infringement, thereby addressing the loophole wherein dividing performance of a method's steps allows all parties to escape liability.⁵³ The law set forth, however, does not distinguish among innocent and conscious third-party contributors to divided infringement.⁵⁴ A conscious contributor, referring herein to a party who is not an unwitting participant and colludes to perform a subset of steps, is allowed to escape direct infringement liability, unless the party is the mastermind behind the infringement or a participant in a narrowly defined joint enterprise, which requires "an equal right of control."⁵⁵

Akamai Technologies, Inc. v. Limelight Networks, Inc. presented the court with an opportunity to set forth the generalized law of divided infringement.⁵⁶ Although the court noted that application of the law is fact-specific and requires consideration of context, the court did not elaborate on the new law's limits.⁵⁷

50. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 905 (Fed. Cir. 2015) (noting strict liability nature of direct infringement under Section 271(a)), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). The court also noted the requirement of "knowledge or willful blindness of the patent" under Section 271(b) and Section 271(c)). *Id.* at 908; see also John David Evered, *Inducement of Patent Infringement After Global-Tech and Akamai: A Deadly Weapon Against New Enabling Technologies?*, 23 TEX. INTELL. PROP. L.J. 43, 46-48 (2014) (discussing culpability requirement of induced infringement).

51. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 786 F.3d 899, 912 (Fed. Cir. 2015) (citing knowledge requirement for joint liability), *reh'g granted*, 797 F.3d 1020 (Fed. Cir. 2015) (en banc). The dissent notes that direct infringement liability under the joint enterprise prong requires knowledge. *Id.* at 929 (Moore, J., dissenting).

52. See 797 F.3d at 1024 (majority opinion) (finding direction or control of customers' actions).

53. See *id.* at 1023, 1025 (determining evidence shows jury could find Limelight liable for performance of all method steps); see also *supra* note 32 and accompanying text (discussing divided infringement loophole).

54. See 797 F.3d at 1022 (presenting law of divided infringement).

55. See *id.* at 1022-23 (attributing liability to single entity deemed mastermind behind infringement). Liability may also be attributed to actors in a joint enterprise, which requires the following elements:

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

Id.

56. 797 F.3d at 1022 (acknowledging opportunity to revisit Section 271(a)).

57. See *id.* at 1023 (requiring consideration of principles of attribution in context of particular facts).

For example, the law stops short of imposing direct infringement liability on conscious contributors of method steps.⁵⁸ Regarding indirect liability, contributory infringement under Section 271(c) focuses on the contribution of an apparatus for use in practicing a method claim instead of practicing steps of a method claim.⁵⁹ Specifically, contributory infringement liability under Section 271(c) encompasses the provision of an apparatus that is “not a staple article or commodity of commerce suitable for substantial noninfringing use,” but does not recognize an analogous provision of one or more method steps not commonly performed or suitable for substantial noninfringing use.⁶⁰ Accordingly, conscious contributors in arms-length relationships with a mastermind may escape both direct and indirect infringement liability for performance of method steps, even if they specifically adapt those steps to infringe a patented method.⁶¹

The broadened scope of direct infringement expands patent holder rights by strengthening claimed methods that multiple parties can perform jointly. Further, this scope allows asserting, in patent litigation, previously unenforceable method claims drafted to require multiple-party performance. Litigation may also involve the scope of the vicarious liability standard, including the boundaries of the expanded “direction or control” test.

presented).

58. See *supra* notes 32, 54-56 and accompanying text (discussing law of divided infringement).

59. See 35 U.S.C. § 271(c) (2012). Section 271(c) states:

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.

Id.

60. 35 U.S.C. § 271(c) (2012) (omitting recitation of commodity method suitable for substantial noninfringing use).

61. See *supra* notes 32, 54-57, 59-60 and accompanying text (analyzing direct and indirect infringement liability for third-party conscious contributors).

The divided infringement law that the Federal Circuit set forth addresses the direct infringement liability of a defendant in an arms-length relationship with a customer, where the defendant performs some steps of a method claim and the customer performs the remainder of the steps. The court, however, stopped short of addressing the liability of third parties who knowingly contribute to the direct infringement. In the absence of a statutory construction from the courts to resolve this issue, Congress may enact a potential solution, which could take the form of expanding the provisions of contributory infringement.

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