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JOINT INFRINGEMENT: CIRCUMVENTING THE PATENT SYSTEM THROUGH “COLLABORATIVE” INFRINGEMENT

Vincent Ferraro

I. INTRODUCTION

As identified by the Federal Circuit, joint infringement exists where no single entity directly performs all the steps of a method claim or provides or uses all the components of a system claim.¹ Under the new standard for joint patent infringement recently developed by the Court of Appeals for the Federal Circuit (hereinafter “the Federal Circuit”), avoiding liability for patent infringement is as easy as collaborating with a third party to divide up the tasks necessary to infringe a patent.² More specifically, under the new standard for joint infringement, if multiple parties collaborate to infringe a patented claim and neither party is the “mastermind” or “directs or controls” the other, then all parties are likely to be absolved of patent infringement.³ Escaping liability for patent infringement should not be this easy. Alarming, for patent owners, the new standard for joint infringement creates an enormous loophole in the law of patent infringement—one that is easily exploited by accused infringers to avoid any liability for patent infringement. And, even more troubling, the loophole encourages behavior fully contemplated and later endorsed by the Federal Circuit, as acceptable conduct for accused infringers and as a valid defense to allegations of patent infringement.⁴ Put simply, the loophole created by the Federal Circuit not only flouts the patent system, but provides a grave injustice to all patent owners who own a patent that requires multiple parties to infringe it.

¹ *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378-1381 (Fed. Cir. 2007).

² *See Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008).

³ *See id.*

⁴ *See BMC Res., Inc.*, 498 F.3d at 1379, 1381; *see also Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1321-1322 (Fed. Cir. 2010).

While Courts have been aware of and have decided cases involving infringement by multiple parties for quite some time, the theory of joint patent infringement has only very recently taken shape.⁵ This paper traces the evolution of the new jurisprudence on joint infringement recently developed by the Federal Circuit. Specifically, in 2007, the Federal Circuit issued a seminal decision, *BMC Resources, Inc. v. Paymentech, L.P.*, where, seemingly for the first time, it allegedly set forth the “proper standard for joint infringement by multiple parties of a single claim.”⁶ It is *BMC Resources* where the Federal Circuit drastically diverged from earlier precedent regarding joint infringement by introducing a new heightened standard for proving direct infringement by multiple parties.⁷ The Federal Circuit referred to the new standard as the “direction or control” standard and held that to establish infringement of a claim requiring the actions of multiple parties, one of the parties must direct or control the activities of the other.⁸

Likewise, in a subsequent case involving joint infringement, *Muniauction, Inc. v. Thomson Corp.*, the Federal Circuit endorsed this newly minted standard⁹ and arguably extended it by setting forth a vicarious liability standard.¹⁰ But *BMC Resources* and *Muniauction* were

⁵ See, e.g., *Wallace v. Holmes*, 29 F. Cas. 74, 80 (C.C.D. Conn. 1871); *Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co.*, 77 F. 288, 296-298 (6th Cir. Mich. 1896); *New Jersey Patent Co. v. Schaeffer*, 159 F. 171, 173 (C.C.D. Pa. 1908); *Peerless Equipment Co. v. W. H. Miner, Inc.*, 93 F.2d 98, 105 (7th Cir. 1937); *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 500 (U.S. 1964); *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1567-1568 (Fed. Cir. 1983); and *BMC Res., Inc.*, 498 F.3d at 1379-1381.

⁶ *BMC Res., Inc.*, 498 F.3d at 1378.

⁷ *Id.* at 1381-1382.

⁸ *Id.*

⁹ *Muniauction, Inc.*, 532 F.3d at 1329 (citing *BMC Res., Inc.*, 498 F.3d at 1380-1381) (“[w]here the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party, i.e., the ‘mastermind.’”).

¹⁰ *Id.* at 1330 (“[u]nder *BMC Resources*, the control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method.”).

just the beginning for joint infringement, as the Federal Circuit took several opportunities in the years following these two watershed decisions to further develop and shape this area of the law.¹¹

This paper begins by providing a brief background of the patent system, the policy reasons for instituting the patent system, and the development of patent infringement liability. Section III traces the roots of the concept of joint infringement from *BMC Resources* and *Muniauction* and tracks its evolution through the Federal Circuit, by discussing and analyzing such cases as *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, *Centillion Data Sys., LLC v. Qwest Communs. Int'l, Inc.*, and *McKesson Techs., Inc. v. Epic Sys. Corp.* Then, Section IV summarizes the current state of the law of joint infringement based on the above-referenced Federal Circuit decisions. Section V provides insight as to the potential impact that these decisions may have on the rights of patent owners, as well as the impact it may have on the patent system and the public. Finally, Section VI sets forth several remedial measures that the legislature and judiciary can implement in an attempt to close the judicially created loop hole created by the Federal Circuit.

II. BACKGROUND

a. The Patent System

On April 10, 1790, Congress enacted the Patent Act of 1790 and with this act the United States patent system was born.¹² Congress's legislative power to enact such a statute is rooted in Article 1, Section 8, Clause 8 of the United States Constitution, which reads: “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the

¹¹ See *Golden Hour Data Sys. v. emsCharts, Inc.*, 614 F.3d 1367 (Fed. Cir. 2010); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311 (Fed. Cir. 2010); *Centillion Data Sys., LLC v. Qwest Communs. Int'l*, 631 F.3d 1279 (Fed. Cir. 2011); and *McKesson Techs. Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 7531 (Fed. Cir. Apr. 12, 2011).

¹² See Patent Act of 1790.

exclusive Right to their respective Writings and Discoveries.”¹³ Since 1790 the United States patent system underwent several changes via, *inter alia*, the Patent Act of 1836, the Patent Act of 1952, and most recently the Leahy-Smith America Invents Act.¹⁴ Despite the extensive transformation that the U.S. patent system underwent from 1790 to present, several key components of the patent system remained true throughout. For example, one thing that has essentially remained unchanged since the inception of the United States patent system is the right for an inventor to receive a patent for his or her invention.¹⁵ Notably, another basic tenet of the patent system that has existed since its inception is the notion that whoever invents a new, useful and unobvious machine, process, or composition of matter is entitled to a patent.¹⁶ It has also been and continues to be a well established principle of patent law that a patent grants the patent owner with a negative or exclusionary right.¹⁷ That is, the patent owner has the right to exclude anyone from making, using or selling the patented invention in the United States.¹⁸ Finally, it has been and remains a bedrock principle of patent law that the right to exclude afforded to the patent owner by the patent is only for a limited time.¹⁹

Aside from Congress’s legislative power to enact patent laws under the Constitution, there are strong public policy reasons that support the creation and implementation of a patent system.²⁰ The patent system is essentially a bargain between the inventor and the public.²¹ On one side, an inventor expends money to research and develop inventions and in turn makes those inventions available to the public, thereby increasing the wealth of public knowledge and

¹³ U.S. Const. Art. I, § 8, Cl. 8.

¹⁴ See Patent Act of 1836; Patent Act of 1952; and Leahy-Smith America Invents Act.

¹⁵ Patent Act of 1790, § 1; Patent Act of 1836, § 6; and Patent Act of 1952, § 101.

¹⁶ Patent Act of 1790, § 1; Patent Act of 1836, § 6; and Patent Act of 1952, § 101.

¹⁷ Patent Act of 1790, § 1, 4; Patent Act of 1836, § 5, 6, 14, 17; and Patent Act of 1952, § 271.

¹⁸ Patent Act of 1790, § 1, 4; Patent Act of 1836, § 5, 6, 14, 17; and Patent Act of 1952, § 271.

¹⁹ Patent Act of 1790, § 1; Patent Act of 1836, § 5; and Patent Act of 1952, § 154.

²⁰ See *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141 (U.S. 1989).

²¹ *Id.* at 150-151.

arguably in many instances increasing the public’s standard of living.²² On the other side, the public, via the patent system, transfers, for a limited time, to the inventor the right to exclude others from making, using, selling, or offering for sale the invention in the United States.²³ It is this “bargain” that creates an incentive for inventors to continue to expend their time and money in an effort to further develop new and innovative technologies.²⁴ Arguably, without such an incentive, there would simply be no justification to expend time or resources for the development of new technologies. This would be extremely detrimental to the public as innovation would cease to exist in the United States and the storehouse of public knowledge would essentially languish.

b. The Legal Bounds of a Patent

It is also well established United States patent law that the claims of a patent define the “metes and bounds” of the invention—in other words—the scope of the patent owner’s rights in the invention.²⁵ The claims of a patent consist of elements that define the scope of the invention.²⁶ System claims comprise elements that make up the entire claimed system or apparatus.²⁷ Likewise, method claims comprise steps for performing the entire claimed process.²⁸ In short, it is the claims of a patent that provide the bounds of the patent owner’s legal right to the patented invention.²⁹ As such, the patent owner has a right to exclude anyone from making, using, and selling the claimed invention,³⁰ which, if drafted by a skilled patent

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (“It is a ‘bedrock principle’ of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.”).

²⁶ *Vitronics Corp. v. Conceptoronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

²⁷ *Phillips*, 415 F.3d at 1312.

²⁸ *See Vitronics Corp.*, 90 F.3d at 1579.

²⁹ *Phillips*, 415 F.3d at 1312.

³⁰ 35 U.S.C. § 271 (1952).

prosecutor, may be much broader in scope than just the one embodiment developed by the inventor.

c. Establishing Liability for Patent Infringement

As a threshold matter, to establish infringement of a patent—whether direct or indirect infringement—the patent owner must prove that an entity makes, uses, or sells a system or apparatus that comprises all the elements or limitations of the asserted system claim or performs all the steps of the asserted method claim.³¹ It is well established Supreme Court law that to directly infringe the claim of a patent under 35 U.S.C. § 271(a), the alleged infringer must make, use, offer to sell, or sell an apparatus that satisfies every element of the asserted system claim or perform every step of the asserted method claim.³² This is commonly known as the “all elements rule.”³³

A patent owner, alternatively, can prevail on its patent infringement claim by showing the alleged infringer indirectly infringes the asserted patents.³⁴ Indeed, Congress has provided a remedy to patent owners for alleged infringers that do not make, use, offer to sell, or sell a system that reads on every limitation of a system claim or perform every step of a method claim.³⁵ Notably, this type of infringement is commonly referred to as indirect infringement.³⁶ Under the current patent laws, there are two types of indirect infringement—infringement by inducement and contributory infringement.³⁷ Both scenarios, nevertheless, still require there to

³¹ See e.g., *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40-41 (U.S. 1997); *Joy Technologies v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993); and *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363, F.3d 1263, 1272 (Fed. Cir. 2004).

³² *Warner-Jenkinson Corp.*, 520 U.S. at 29.

³³ *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1379 (Fed. Cir. 2008).

³⁴ *BMC Res., Inc.*, 498 F.3d at 1379.

³⁵ 35 U.S.C. § 271(b)-(c) (1952).

³⁶ *BMC Res., Inc.*, 498 F.3d at 1379.

³⁷ 35 U.S.C. § 271(b)-(c) (1952).

be a direct infringer and some culpable conduct by the accused infringer.³⁸ That is, indirect infringement can only arise when the accused indirect infringer has some knowledge of the patent and arguably some intent to infringe the patent—at the very least it must be shown that the alleged infringer continued to infringe the patent despite its knowledge of the patent’s existence.³⁹ Generally, an alleged infringer may be found liable for inducing infringement under Section 271(b) when it has encouraged, aided or caused another entity to directly infringe the asserted claims of the patent.⁴⁰ Likewise, an alleged infringer may be found liable for contributory infringement under Section 271(c) when it sells a component that has a particular function when implemented with a system that directly infringes the asserted claims of the patent.⁴¹

At the outset, it is abundantly clear that Congress has not expressly provided a remedy to patent owners for infringement by multiple separate entities where none of the entities *directly* infringe the asserted claim. Herein lies the root of the problem, because, in light of this statutory gap, accused infringers are able to completely avoid liability for patent infringement by simply collaborating with other entities to carry out the claimed invention, as long as none of the parties involved directly infringe the patent. And in light of the Federal Circuit’s recent holdings condoning this type of behavior, alleged infringers can continue to exploit this loophole without any repercussions, leaving patent owners remediless for the infringement of their patents.

One of the early recognitions of the “joint” or “collaborative” infringement scenario surfaced in *Aro Mfg. Co. v. Convertible Top Replacement Co.*, a Supreme Court decision.⁴² In an effort to overcome Congress’s apparent oversight of this “joint” infringement scenario, the

³⁸ See *BMC Res., Inc.*, 498 F.3d at 1379; and *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1304 (Fed. Cir. 2006).

³⁹ *DSU Med. Corp.*, 471 F.3d at 1304.

⁴⁰ *Id.* at 1304-1305.

⁴¹ *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 340-342 (U.S. 1961).

⁴² *Aro Mfg. Co.*, 377 U.S. at 501.

Supreme Court endorsed an exception or carve-out to the strict requirements of the patent infringement statute for parties acting together to jointly infringe the asserted patent.⁴³

Particularly, the Supreme Court held that contributory infringement “is a species of joint-tortfeasor, who is held liable because he has contributed with another to the causing of a single harm to the plaintiff.”⁴⁴ The Supreme Court’s reasoning for its decision was rooted in principles of tort law and particularly with respect to the tort theory of joint and several liability.⁴⁵

However, merely raising the issue without setting forth a particular test or method for lower courts to employ in determining liability for joint infringement by multiple parties, and in the absence of any other appellate level court dealing with a similar issue, District Courts were left without any real direction in this area of the law.

Eventually, some District Courts adopted and applied the “some connection” standard for cases involving joint infringement.⁴⁶ It was not until 2007, that the Federal Circuit squarely addressed the issue of joint infringement in *BMC Resources*.⁴⁷ As will be discussed and analyzed in detail below, it is the *BMC Resources* decision, which set forth the “direction and control” standard⁴⁸ that served as the source of several Federal Circuit opinions, which eventually led to the stringent “agency” or “contractual relationship” standard set forth in the Federal Circuit’s *Akamai* decision in 2010.⁴⁹ The net result of these Federal Circuit decisions: a

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.* at 502, 506 (In *Birdsell v. Shaliol*, *supra*, 112 U.S., at 489, the Court applied to a patent case the proposition that “By our law, judgment against one joint trespasser, without full satisfaction, is no bar to a suit against another for the same trespass.”; And in cases of joint infringement this Court was said to have declared the doctrine that, whereas “when the total damage sustained has been paid by one tort-feasor, the damages cannot be duplicated through a recovery against another.”).

⁴⁶ *BMC Res., Inc. v. Paymentech, L.P.*, 2006 U.S. Dist. LEXIS 37746, *9 (N.D. Tex. May 24, 2006) (“District courts vary, however, as to what kind of “connection” between the entities they require a party to prove to show direct infringement. In *Faroudja*, the court stated that ‘some connection’ must exist between the entities, but also suggested that the entities must work ‘in concert.’”).

⁴⁷ *BMC Res., Inc.*, 498 F.3d at 1379.

⁴⁸ *Id.* at 1381, 1382.

⁴⁹ *Akamai Techs., Inc.*, 629 F.3d at 1320.

judicially created loophole ripe for exploitation by accused infringers leaving patent owners without a remedy for the blatant infringement of their patents.

III. BMC RESOURCES AND ITS PROGENY

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

In 2007, the Federal Circuit, in *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d (Fed. Cir. 2007), via Circuit Judges Rader, Gajarsa, and Prost, attempted to determine and set forth the proper standard for establishing joint patent infringement of an asserted method claim by multiple parties.⁵⁰ Essentially, the Federal Circuit had to decide the relationship that must exist between multiple parties involved in the infringement of an asserted method claim, where no one party performs all of the claimed method steps, that would rise to the level of direct infringement under 35 U.S.C. § 271(a).⁵¹

The Plaintiff BMC Resources owns two patents, U.S. Patent Nos. 5,715,298 (the “298 patent”) and 5,870,456 (the “456 patent”).⁵² Briefly stated, these patents claim a method for processing debit transactions over a telephone network without the use of a personal identification number (PIN) provided by the combined action of several separate and distinct entities.⁵³ Specifically, the patented invention provides an interface between a customer’s telephone, a debit network, and a financial institution, thereby allowing the customer to conduct real-time payment transactions via the customer’s telephone.⁵⁴ The claimed invention first allows the customer to enter account and payment information via an interactive voice response

⁵⁰ *BMC Res., Inc.*, 498 F.3d at 1379 (“The case presents the issue of the proper standard for joint infringement by multiple parties of a single claim.”).

⁵¹ *Id.* (“With other parties performing some claimed method steps, this court must determine if Paymentech may nonetheless be liable for direct infringement under 35 U.S.C. § 271(a).”).

⁵² *Id.* at 1375.

⁵³ *Id.*

⁵⁴ *Id.*

unit accessible from the customer's telephone.⁵⁵ This information then passes through to a debit network (e.g., an ATM network) and on to the customer's financial institution (e.g., a bank), where the financial institution carries out the customer's requested payment transaction.⁵⁶

Admittedly, Defendant, "Paymentech processes financial transactions for clients as a third party."⁵⁷ In essence, Paymentech's job is to receive payment information from the merchant and route it to a participating debit network to facilitate the payment transaction.⁵⁸ In light of Paymentech's participation in conducting financial transactions, BMC Resources accused Paymentech of infringing claim 7 of the '456 patent, which depends from claim 6, *supra*, and claim 2 of the '298 patent, which depends from claim 1.⁵⁹ Crucial to the threshold issue, the parties agreed that Paymentech did not perform every step required by the asserted method claims.⁶⁰ As such, the Federal Circuit had to determine whether Paymentech could still be held liable for direct infringement under a joint infringement theory.⁶¹

The Court started its analysis by first setting forth the basic principle of establishing liability for the direct infringement of a claim.⁶² Additionally, the Court recited the law on indirect infringement: "when a defendant participates in or encourages infringement but does not directly infringe a patent, the normal recourse under the law is for the court to apply the standards for liability under indirect infringement."⁶³ The Court then set forth the well

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *See id.* at 1375-1376.

⁵⁹ *Id.* at 1376-1377.

⁶⁰ *Id.* at 1378.

⁶¹ *See id.*

⁶² *Id.* (citing *Warner-Jenkinson Co.*, 520 U.S. 40) ("Direct infringement requires a party to perform or use each and every step or element of a claimed method or product."); and *Id.*, at 1380 (citing *Warner-Jenkinson Co.*, 520 U.S. at 40) ("Infringement requires, as it always has, a showing that a defendant has practiced each and every element of the claimed invention.").

⁶³ *Id.* at 1379.

established principle that, as a predicate, indirect infringement requires a finding that an entity directly infringes the asserted claim by performing all of the required steps.⁶⁴

While the Federal Circuit acknowledged the potential loophole for a party to elude infringement by having a separate entity perform at least one of the claimed steps on its behalf, or even by entering into an arms-length agreement, it promptly foreclosed the possibility of such a result by reasoning that the “law imposes vicarious liability on a party for the acts of another in circumstances showing that the liable party controlled the conduct of the acting party.”⁶⁵ The Federal Circuit appeared confident that this meant that an alleged infringer cannot therefore avoid liability for patent infringement by having a third party perform one or more of the claimed steps on its behalf.⁶⁶ The Court continued by stating that “a party cannot avoid infringement ... simply by contracting out steps of a patented process to another entity.”⁶⁷ In those cases, the Court wrote, the party in control, or the “mastermind,” would be liable for direct infringement.⁶⁸ Yet, contrary to these statements, the Federal Circuit, earlier in the decision, supported previous cases that held that an accused party cannot be liable for direct infringement when the accused party does not perform all the steps of the asserted method claim.⁶⁹

Even though the Court acknowledged that parties could potentially beat the system by developing agreements that fell short of the direction and control requirement, thereby escaping liability, the Court was neither impressed nor sympathetic to the patent owner’s cause.⁷⁰ The Court determined that such a concern did not outweigh concerns of overreaching the rules of

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.* at 1381.

⁶⁸ *Id.* (“It would be unfair indeed for the mastermind in such situations to escape liability.”).

⁶⁹ *Id.* at 1380.

⁷⁰ *See id.* at 1381.

patent infringement.⁷¹ The Court mentions that it particularly wanted to avoid undermining the statutory scheme for indirect infringement, as set forth by Congress.⁷² The Court also indicated that concerns involving a party avoiding infringement by cooperation with another entity in most instances can be offset simply by proper claim drafting—*i.e.*, by drafting claims to only require the actions of one entity.⁷³ In perhaps the Court’s most difficult statement to swallow for current and future patent owners, the Court indicated that it will not restructure claims or legal standards to “remedy ill-conceived claims.”⁷⁴

Applying the new “direction or control” standard, the Federal Circuit held that Paymentech did not infringe the asserted claims because it did perform every step of the asserted method claims nor did it direct or control any third party entity to perform the missing step or steps of the asserted method claims.⁷⁵ Accordingly, because it was found that Paymentech did not perform nor cause to perform every step of the asserted method claim, it cannot be held liable for direct infringement.⁷⁶ Finally, because no one entity performed each step of the asserted method claims, the Court held that Paymentech could not be found liable for indirect infringement.⁷⁷

In deciding *BMC Resources*, the Federal Circuit clearly took a decisive step with respect to the development of the legal landscape of joint infringement. More specifically, the Federal Circuit expressly moved away from the “some connection” standard and, in its place, set forth the “direction or control” standard.⁷⁸ The Federal Circuit held that to directly infringe a method claim of a patent, one party must perform, or cause to be performed each and every step of the

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *See id.* at 1381, 1382.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *See id.* at 1378, 1381, 1382.

claimed method.⁷⁹ As set forth by the Federal Circuit, to show that an alleged infringer caused a step of the claimed method to be performed by a third party, the patent owner must establish that the alleged infringer directed or controlled that third party to perform the missing steps.⁸⁰

Unfortunately, the Federal Circuit did not provide much guidance on applying the “direction or control” standard, however, it is clear from the decision that contracting out certain steps of a patented process to a third party would fall squarely within the necessary direction and control to find the alleged infringer liable for direct infringement.⁸¹ In such a case, the party in control would be liable for direct infringement, as it would be deemed the “mastermind” and thus unable to escape liability.⁸² While the Federal Circuit, *BMC Resources*, set forth a new standard for joint infringement, it also left open several questions. The main question being, what exactly was meant by “direction or control,” and in particular, how much “direction or control” does an accused infringer need to exercise over a third party to be found liable under a joint infringement theory. A secondary question also remained in the wake of the *BMC Resources* decision—can the theory of joint infringement be applied to system claims as well as method claims. As will be discussed in further detail below, over the last 5 years the Federal Circuit has further developed the law on the theory of joint infringement and even has provided answers to some of the open issues lingering from *BMC Resources*.

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

Shortly following *BMC Resources*, on July 14, 2008, the Federal Circuit issued the next installment in the joint infringement saga with its decision in *Muniauction, Inc. v. Thomson*

⁷⁹ See *id.* at 1382.

⁸⁰ See *id.* at 1381, 1382.

⁸¹ *Id.* at 1381.

⁸² *Id.*

Corp., 532 F.3d 1318 (Fed. Cir. 2008).⁸³ In *Muniauction*, the Federal Circuit, via a panel consisting of Judge Gajarsa, Judge Plager and Judge Prost, not only espoused the “direction or control” standard set forth in *BMC Resource*, but expounded on it by probing further into the question of just how much “direction or control” must be exerted by the accused infringer to be found liable for patent infringement.⁸⁴ Notably, the Federal Circuit further delineated the “direction and control” standard by setting forth the types of relationships and required control necessary to satisfy the “direction and control” standard.⁸⁵ While providing further insight into the “direction and control” standard, the issue on appeal was tailored rather closely to the facts of the specific case, namely “whether the actions of at least the bidder and the auctioneer may be combined under the law so as to give rise to a finding of direct infringement by the auctioneer.”⁸⁶

In this case, *Muniauction* asserted U.S. Patent No. 6,161,099 (“the ’099 patent”) against the Defendant, Thomson.⁸⁷ The ’099 patent is directed to an electronic method “for conducting ‘original issuer auctions of financial instruments.’”⁸⁸ In short, the ’099 patent provides a system that allows issuers of financial instruments to run and monitor the progress of an auction while allowing bidders to prepare, submit, and monitor their bids during the auction.⁸⁹ The claimed invention, as set forth in exemplary claim 1 requires inputting data associated with a bid for a fixed income financial instrument via a bidder’s computer, calculating an interest cost value based on the inputted data via a issuer’s computer, submitting the bid, via the bidder’s computer, transmitting the bid from the bidder’s computer to an issuer’s computer via an electronic

⁸³ *Muniauction, Inc.*, 532 F.3d at 1318.

⁸⁴ *See id.* at 1330.

⁸⁵ *Id.*

⁸⁶ *Id.* at 1329.

⁸⁷ *Id.* at 1321.

⁸⁸ *Id.*

⁸⁹ *See id.* at 1321-1323.

network, communicating the bid to the issuer's computer, and displaying the bid on the issuer's computer.⁹⁰

The Defendants' accused instrumentality, the PARITY system, allows bidders to access bid calculation software on a central server via a computer network and input data to calculate an interest cost for a given bid.⁹¹ Bidders are then permitted to submit a bid to the central server, via the computer network, whereby the bids are transmitted to and displayed on the issuer's computer.⁹² Muniauction accused Thomson's PARITY system of infringing the '099 patent and subsequently filed suit against Thomson for patent infringement.⁹³ Muniauction alleged that Thomson infringed method claims 1, 2, 9, 14, 18, 20, 24, 31, 32, 36, 40, 42, 46, and 56 of the '099 patent by conducting auctions via its PARITY system. Thomson argued that, under the theory of joint infringement, it could not be held liable for infringing the asserted claims.⁹⁴ In response to Muniauction's allegations, Thomson argued that it did not infringe the asserted claims because it neither performed nor caused to be performed each step of the asserted method claims.⁹⁵ In fact, the parties even agreed that the asserted method claims required actions by multiple parties, for example, the auctioneer's system and the bidders.⁹⁶

Considering this was another classic joint infringement scenario, the Federal Circuit in *Muniauction* started its analysis by first acknowledging the new standard it had set forth in *BMC Resources*.⁹⁷ The Court also reiterated the now well settled law that direct infringement requires

⁹⁰ *Id.* at 1322-1323.

⁹¹ *Id.* at 1323.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *See id.*

⁹⁶ *Id.* at 1328-1329.

⁹⁷ *Id.* at 1329 ("In *BMC Resources*, this court clarified the proper standard for whether a method claim is directly infringed by the combined actions of multiple parties.").

a single party to perform every step of a claimed method.⁹⁸ Once again this Court acknowledged the tension between the strict requirements of direct infringement and the concerns of allowing accused infringers to escape liability for infringement by having another entity carry out at least one of the claimed steps on its behalf.⁹⁹

The Federal Circuit in *Muniauction* not only adopted the “direction and control” standard for joint infringement set forth in *BMC Resources*, it wholeheartedly endorsed the standard by reiterating and subsequently applying it to the facts of this case.¹⁰⁰ The Federal Circuit also refused to let die the notion that mere “arms-length cooperation” will not give rise to direct infringement by any party.¹⁰¹ In endorsing the *BMC Resources* rule, the Federal Circuit once again affirmed that the holding in *On Demand* did not rely on the relationship between the parties and therefore should essentially be restricted to the facts of the case with respect to the joint infringement issue.¹⁰²

To determine this case in light of the standard laid down in *BMC Resources*, the Federal Circuit had to determine “whether Thomson sufficiently controls or directs other parties (e.g., the bidder) such that Thomson itself can be said to have performed every step of the asserted claims.”¹⁰³ The Federal Circuit held that Thomson did not infringe the asserted claims because Thomson neither performed every step of the claimed methods nor had another party perform steps on its behalf.¹⁰⁴ The Court reasoned that the relationship between Thomson, an auctioneer, and its customers, bidders, did not rise to the level of the relationship necessary to satisfy the

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.* (“[W]here the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party, i.e., the ‘mastermind.’”).

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 1330.

“direction and control” required under the theory of joint infringement.¹⁰⁵ Particularly, it was determined that Thomson did not exert “direction or control” over the bidders such that the bidder’s actions may be attributable to Thomson—i.e., that Thomson might be vicariously liable for actions of the bidders.¹⁰⁶

In finding Thomson free of liability under the theory of joint infringement, the Federal Circuit expounded on the “direction or control” required to find liability under joint infringement by setting forth yet another vague standard: “the control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method.”¹⁰⁷ While the Federal Circuit attempted to clarify the “direction or control” standard of *BMC Resources*, its repudiation of a particular relationship was equally, if not more, instructive with respect to the standard. Notably, the Federal Circuit provided some assistance in this body of law by indicating that providing access to a system and instructing customers on its use is not sufficient to find liability for direct infringement under the theory of joint infringement.¹⁰⁸ With the Federal Circuit appearing to now require that the actions of a third party must be performed on behalf of the accused infringer or that the accused must be found to be vicariously liable for the acts of the third party under traditional law, more questions may have raised than answered. Most importantly, it is unclear what exactly the Court meant by vicarious liability or performing steps “on behalf” of the accused infringer. Was this the Court’s attempt to require an agency-type relationship between the joint actors?

¹⁰⁵ *See id.*

¹⁰⁶ *See id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

c. *Golden Hour Data Systems, Inc. v. Emscharts, Inc.*, 614 F.3d 1367 (Fed. Cir. 2010)

The next case regarding joint infringement did not appear again before the Federal Circuit until the Summer of 2010 when it decided *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367 (Fed. Cir. 2010).¹⁰⁹ In a split decision, the Federal Circuit, via a panel consisting of Judges Newman, Friedman, and Dyk, once again affirmed the standard for joint infringement set forth in *BMC Resources*.¹¹⁰ The more intriguing aspect of this opinion is Judge Newman's dissent, as it seems the relatively new theory has finally begun to stir up dissension among at least one of the Federal Circuit judges.¹¹¹

In a rather terse majority opinion, the Federal Circuit, for at least the third time now, merely echoed the law on joint infringement as set forth in *BMC Resources* and subsequently affirmed in *Muniauction*: “[w]here the combined actions of multiple parties are alleged to infringe process claims, the patent holder must prove that one party exercised ‘control or direction’ over the entire process such that all steps of the process can be attributed to the controlling party, i.e., the ‘mastermind.’”¹¹² In affirming the lower court, the Federal Circuit simply held that that the relationship between the Defendants was insufficient to infer control or direction and therefore, the Defendants were found not to infringe the asserted method claims.¹¹³ With respect to the asserted system claims, the Federal Circuit found for the Plaintiff on a technicality.¹¹⁴ The Plaintiff, Golden Hour, argued that emsCharts was liable for infringement because emsCharts sold its software and Defendant, Sofittech's software together, and together

¹⁰⁹ *Golden Hour Data Sys. v. emsCharts, Inc.*, 614 F.3d 1367 (Fed. Cir. 2010)

¹¹⁰ *Id.* at 1380.

¹¹¹ *Id.* at 1382-1383.

¹¹² *Id.* at 1380.

¹¹³ *Id.* at 1380-1381.

¹¹⁴ *See id.* at 1381.

these systems comprised the systems of the asserted claims.¹¹⁵ In finding no infringement by either Defendant under a joint infringement theory, the Court reasoned that “[s]uch a sale might well create liability on the part of emsCharts for the sale of the patented system,” regardless of whether or not emsCharts controlled Softtech.¹¹⁶ The Court, however, stuck to its holding of non-infringement, because, by agreement, only a joint infringement theory was submitted to the jury for the infringement of these claims.¹¹⁷

While not expressly providing any further instructions for analyzing joint infringement cases, the Federal Circuit dismissed yet another type of relationship from falling within the “direction or control” standard.¹¹⁸ Specifically, the Defendants in this case formed a strategic partnership to enable their two separate programs to work together.¹¹⁹ The Defendants also worked cooperatively in selling the two programs together as unit.¹²⁰ Therefore, by determining that such a working relationship does not rise to the level of the “direction or control” necessary to find joint infringement, the Federal Circuit dismissed yet another type of relationship from the now seemingly elusive requirement.

Interestingly, Judge Newman was diametrically opposed to the majority’s decision.¹²¹ She specifically took issue with the fact the defendants were not found liable for patent infringement even though they took active steps to collaborate and practice every limitation of the claims.¹²² Judge Newman went even as far as to say that the majority’s decisions “is incorrect as a matter of law.”¹²³ Taking it one step further, Judge Newman challenged the entire

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *See id.* at 1371.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.* at 1382-1383.

¹²² *Id.*

¹²³ *Id.* at 1383.

theory of joint infringement as established in *BMC Resources* and later affirmed in *Muniauction*.¹²⁴ Judge Newman ultimately held that a collaborative effort, as in this case, a “strategic partnership” to develop and sell what was once separate products as one integrated and infringing unit “is not immune from infringement simply because the participating entities have a separate corporate status.”¹²⁵ Critically, this dissent illustrates that at least one of the Federal Circuit judges was not ready to whole heartedly accept the relatively new standard set forth in *BMC Resources*.

d. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311 (Fed. Cir. 2010)

Not long after *Golden Hour*, the Federal Circuit decided *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311 (Fed. Cir. 2010).¹²⁶ Faced with yet another joint infringement case, the Federal Circuit was presented with another opportunity to further delineate the “direction or control” standard set forth in *BMC Resources* and affirmed in *Muniauction*. At first blush the issue on appeal did not appear to require further explanation on the “direction or control” standard, but simply the application of the standard to the particular facts on the record.¹²⁷ The Federal Circuit, with a panel consisting of Judges Rader, Linn, and Prost, however, took this opportunity to once again expound the “direction or control” standard by setting forth seemingly the final nail in the coffin for patent owners relying on joint infringement to prove liability. Arguably, the Federal Circuit in *Akamai* took the final leap regarding the “direction or control” standard by answering the question left open from *Muniauction*: what

¹²⁴ *Id.* (“[F]or this court has stated, for example in *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008), that there cannot be infringement when entities collaborate to practice a patented invention. Such a universal statement is incorrect.”).

¹²⁵ *Id.*

¹²⁶ *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311 (Fed. Cir. 2010).

¹²⁷ *See id.* at 1318

relationship among the accused joint infringers is sufficient to satisfy the “direction or control” standard.¹²⁸

Without delving too far into the background of the case, the asserted patents, and the related technology, Akamai brought a patent infringement against Limelight asserting that Limelight infringed various claims of U.S. Patent Nos. 6,108,703 (“the ‘703 patent”), 7,103,645 (“the ‘645 patent”), and 6,553,413 (“the ‘413 patent”).¹²⁹ The patents relate generally to a system and method for allowing a website content provider to outsource the storage and delivery of predetermined portions of its website in order to provide a more efficient and reliable website for its visitors.¹³⁰ At trial, Akamai only asserted method claims against Limelight and it was undisputed among the parties that Limelight did not, itself, perform every step required by the asserted method claims.¹³¹ Notably, it is Limelight’s customers, the website content providers, with whom Limelight has standard customer contracts that perform several steps of the asserted method claims.¹³²

The Federal Circuit began its analysis by reiterating, for at least the fourth time, the now well established standard for determining liability where no one party performs all the steps of a claimed method.¹³³ In, what seemed to be, at the time, a watershed moment in the development of joint infringement theory, the Federal Circuit finally set forth the exact relationship among accused infringers that is required to satisfy the elusive “direction and control” standard. In setting a bright-line rule, the Federal Circuit held, that as a matter of law, “there can only be joint infringement when there is an agency relationship between the parties who perform the method

¹²⁸ *See id.* at 1320.

¹²⁹ *Id.* at 1314.

¹³⁰ *See id.* at 1314-1317.

¹³¹ *Id.* at 1316-1317.

¹³² *Id.* at 1317.

¹³³ *Id.* at 1318-1319 (citing *Muniauction, Inc.*, 532 F.3d, at 1329) (“[T]here can be no infringement unless ‘one party exercises ‘control or direction’ over the entire process such that every step is attributable to the controlling party.’”).

steps or when one party is contractually obligated to the other to perform the steps.”¹³⁴ The Court also went on to further clarify the contractually obligated prong of the relationship requirement, by first indicating that just a contract between the parties is not sufficient to find either party liable for joint infringement.¹³⁵ To the contrary, the Court indicated that to satisfy the contractually obligated prong, the contracted party must actually be obligated to perform the steps of the claimed method so that the contracted party’s activities may be attributable to the accused infringer.¹³⁶ In the midst of setting forth this rule, the Court once again side-stepped the looming issue that this rule creates a loophole for accused infringers to avoid liability completely, and instead placed the entire onus on the patent owner instructing them to draft better claims—*i.e.*, claims that only require one party to infringe.¹³⁷

After the *Akamai* decision, it seemed that the road to further develop the law on joint infringement had finally reached its end. That changed when on April 20, 2011, the Federal Circuit vacated the *Akamai* decision, reinstated the original appeals, and ordered an *en banc* rehearing of the case.¹³⁸ In an apparent attempt to re-evaluate the last five years of joint infringement jurisprudence, the Federal Circuit specifically requested the parties to file new briefs “addressing the following issue: If separate entities each perform separate steps of a method claim, under what circumstances would that claim be directly infringed and to what extent would each of the parties be liable?”¹³⁹ The *en banc* case has been fully briefed by both parties and a voluminous number of *amici curiae* briefs were filed on behalf of countless

¹³⁴ *Id.* at 1320.

¹³⁵ *Id.* at 1321.

¹³⁶ *Id.*

¹³⁷ *Id.* at 1321-1322.

¹³⁸ *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 419 Fed. Appx. 989, 989-990 (Fed. Cir. 2011).

¹³⁹ *Id.* at 989.

interested parties. Oral argument for this case was held on November 18, 2011 before the entire Federal Circuit. A decision in this case is still pending.

e. *Centillion Data Sys., LLC v. Qwest Communs. Int'l*, 631 F.3d 1279 (Fed. Cir. 2011)

Following the *Akamai* decision was *Centillion Data Sys., LLC v. Qwest Communs. Int'l*, 631 F.3d 1279 (Fed. Cir. 2011), the next step in the evolution of the theory of joint infringement.¹⁴⁰ Here, the Federal Circuit, with a panel comprising of Judges Lourie, Linn, and Moore, was presented two issues: (1) what constitutes “use” of a system claim under 35 U.S.C. § 271(a); and (2) how does this definition of “use” apply to direct infringers and infringement under joint infringement or vicarious liability of a system claim.¹⁴¹ Like all the previous cases, the asserted claims in *Centillion* raised issues of joint infringement—that is, multiple parties were required to infringe the asserted claims.¹⁴² The difference here is that the asserted claims were system claims and not method claims.¹⁴³ Therefore, the Federal Circuit had to determine whether the theory of joint infringement, as set forth in *BMC Resources* and its progeny, applied to system or apparatus claims and more specifically, how it applied when it is the “use” of the accused system that causes the system claim to be infringed.¹⁴⁴ This was a question of first impression for the Federal Circuit.¹⁴⁵

This litigation commenced when Centillion accused Qwest of infringing claims 1, 8, 10, and 46 of U.S. Patent No. 5,287,270 (“the ’270 patent”).¹⁴⁶ For the sake of brevity, the ’270 patent is directed to a system provided by a service provider that collects and processes call data

¹⁴⁰ *Centillion Data Sys., LLC v. Qwest Communs. Int'l*, 631 F.3d 1279 (Fed. Cir. 2011).

¹⁴¹ *See id.* at 1283.

¹⁴² *Id.* at 1281.

¹⁴³ *Id.*

¹⁴⁴ *See Id.* at 1283.

¹⁴⁵ *Id.* (“We have never directly addressed the issue of infringement for ‘use’ of a system claim that includes elements in the possession of more than one actor.”).

¹⁴⁶ *Id.* at 1281.

and subsequently delivers the data to its customers in a format acceptable for display and further processing by the customer's personal computer.¹⁴⁷ Exemplary claim 1 requires: (1) a storage means; (2) a data processing means; (3) a transferring means; and (4) a personal computer data processing means.¹⁴⁸ The parties do not dispute that the asserted system claims require both a "back-end" system owned and provided by a service provider and a "front-end" system owned and provided by an end user or customer.¹⁴⁹

In relying on its decision in *NTP*, the Federal Circuit held "that to 'use' a system for purposes of infringement, a party must put the invention into service, *i.e.*, control the system as a whole and obtain benefit from it."¹⁵⁰ The Federal Circuit then took a rather broad approach with respect to the "control" required under the "use" standard.¹⁵¹ In other words, the "control" required was more analogous to simply using the system than the ordinary meaning of the word "control"—having power over someone or being in command. The Federal Circuit went on to hold that "direct infringement by 'use' of a system claim 'requires a party ... to use each and every ... element of a claimed [system].'"¹⁵² Most importantly, to infringe a system claim, the user simply must use all the elements of the claimed system to make them work for their patented purpose—not have physical control over all the elements of the claimed system.¹⁵³

Ultimately, the Federal Circuit held that Qwest's customers "used" Qwest's system under 35 U.S.C. § 271(a) because the users cause Qwest's system to perform certain processes and they obtain a benefit from the system.¹⁵⁴ The Court also determined that Qwest's customers are single users of its system, and that there was thus no need to perform a joint infringement

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 1284.

¹⁵¹ *Id.* ("The 'control' contemplated in *NTP* is the ability to place the system as a whole into service.").

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Id.* at 1285.

analysis under *BMC Resources*.¹⁵⁵ On the other hand, the Federal Circuit determined that under *NTP*, Qwest does not “use” the claimed system because Qwest does not put the personal computer data processing means into service—that is, Qwest does not control its customer’s personal computer nor does it obtain benefit from it.¹⁵⁶

Because Qwest did not use each and every element of the claimed system, the Federal Circuit determined that Qwest could only be found liable for direct infringement of the asserted system claims under a theory of joint infringement.¹⁵⁷ The Federal Circuit then traced the evolution of joint infringement from *BMC Resources* to *Akamai*, and acknowledged that for cases where a method claim requires the actions of more than one party, the law requires either the existence of an agency relationship or a contractual obligation to perform the steps.¹⁵⁸ Relying on its decisions from *BMC Resources*, *Muniauction*, *Akamai*, and *Cross Medical*, the Federal Circuit held that Qwest was not vicariously liable for the actions of its customers because neither the requisite agency relationship nor a contractual obligation existed between Qwest and its customers.¹⁵⁹ In a side note, the Federal Circuit also held that Qwest did not “make” the entire claimed system for the same reasons it did not “use” the entire claimed system.¹⁶⁰

The takeaway from *Centillion* is simple: the Federal Circuit endorsed the bright-line rule regarding joint infringement set forth in *Akamai* and applied it to system claims, thereby providing that joint infringement theory can apply to both method and system claims.¹⁶¹

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at 1286 (“Supplying the software for the customer to use is not the same as using the system”).

¹⁵⁷ *See id.* at 1287.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* at 1287.

¹⁶⁰ *Id.* at 1288.

¹⁶¹ *See id.* at 1286-1287.

f. *McKesson Techs. Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 7531 (Fed. Cir. Apr. 12, 2011)

In what is, at the moment, the last chapter of the joint infringement saga from the Federal Circuit, *McKesson Techs., Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 7531 (Fed. Cir. Apr. 12, 2011) was decided on April 12, 2011 by a panel comprising of Judges Linn, Bryson, and Newman.¹⁶² *McKesson* presented yet another set of method claims requiring multiple parties to infringe them.¹⁶³ In this case, the Plaintiff, *McKesson* alleged that a software developer, *Epic*, induced the infringement of its patent by licensing the infringing software to health-care providers, who in turn, offered it to their patients.¹⁶⁴ The parties agreed that the claimed method required the acts of both the health-care providers and their patients.¹⁶⁵ Therefore, the sole issue on appeal was whether the relationship between *Epic*'s customers, here the health-care providers, and the users of the software, here the patients of the health-care providers, was such that performance of the claimed method step by the patients was attributable to the health-care provider.¹⁶⁶

McKesson presented two arguments for finding *Epic* liable for indirect infringement of the asserted claims: (1) that the special nature of the doctor-patient relationship rises to the level of "direction or control" sufficient to establish joint infringement; and (2) that the recent Federal Circuit precedent is simply wrong and this panel should follow traditional laws of torts with respect to joint tort-feasor liability.¹⁶⁷ Relying on *BMC Resources*, *Muniauction*, and *Akamai*, the Federal Circuit rejected both arguments.¹⁶⁸ First, the Federal Circuit established that the doctor-patient relationship does not "give rise to an agency relationship or impose on patients a

¹⁶² *McKesson Techs. Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 7531 (Fed. Cir. Apr. 12, 2011).

¹⁶³ *Id.* at *4-*5.

¹⁶⁴ *Id.* at *4.

¹⁶⁵ *Id.* at *5, *7.

¹⁶⁶ *Id.* at *7.

¹⁶⁷ *Id.* at *10, *12.

¹⁶⁸ *See id.* at *10-*13.

contractual obligation such that the voluntary actions of patients can be said to represent the vicarious actions of their doctors.”¹⁶⁹ Second, the Federal Circuit made clear that decisions from prior panels are binding on subsequent panels unless they are overturned via an *en banc* panel.¹⁷⁰ Moreover, the Federal Circuit yet again, reiterated the current joint infringement standard—in order to find direct infringement under 35 U.S.C. § 271(a), where no one party performs all the steps of a claimed method, an agency relationship or contractual obligation must exist between the joint infringers.¹⁷¹

What is again arguably more important than the majority opinion is the concurrence by Judge Bryson and the dissent by Judge Newman. In the concurrence, Judge Bryson acknowledged that the majority reached the correct decision in light of *BMC Resources* and its progeny.¹⁷² However, in the same breath, Judge Bryson questioned the entire concept of joint infringement as set forth in *BMC Resources* and stated that the issue may be important enough to warrant an *en banc* review.¹⁷³ Judge Newman took Judge Bryson’s concurrence one step further and expressly repudiated the majority’s decision as disserving commerce, fairness, and innovation incentives, while also being contrary to statute, precedent that predates *BMC Resources*, and long-held principles of common law torts liability.¹⁷⁴ It is clear from her dissent that Judge Newman is diametrically opposed to the recent Federal Circuit decisions in the area of joint infringement and particularly rejects the notion that there can only be direct infringement

¹⁶⁹ *Id.* at *10.

¹⁷⁰ *Id.* at *12.

¹⁷¹ *Id.* at *14-*15 (“This court has time and again rejected liability where one party performed most of the patented method and left it to another party to complete the method in the absence of any contractual obligation or agency relationship that would vicariously attribute the acts of the one party to the other. *See Akamai* 629 F.3d at 1322; *Muniauction*, 532 F.3d at 1330; *BMC Res.*, 498 F.3d at 1381-82.”).

¹⁷² *Id.* at *15.

¹⁷³ *Id.*

¹⁷⁴ *Id.* at *17, *37.

when a single entity performs or directs or controls each and every step of the claimed method.¹⁷⁵

Following the *McKesson* decision, on May 26, 2011, the Federal Circuit vacated the decision, reinstated the original appeals, and ordered an *en banc* rehearing of the case.¹⁷⁶ In yet another attempt to re-evaluate the last five years of joint infringement jurisprudence, the Federal Circuit specifically requested the parties to file new briefs to answer the following questions: “1. If separate entities each perform separate steps of a method claim, under what circumstances, if any, would either entity or any third party be liable for inducing infringement or for contributory infringement? *See Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565 (Fed. Cir. 1983). 2. Does the nature of the relationship between the relevant actors—e.g., service provider/user; doctor/patient—affect the question of direct or indirect infringement liability?”¹⁷⁷ The *en banc* case has been fully briefed by both parties and a voluminous number of *amici curiae* briefs were filed on behalf of countless interested parties. Oral argument for this case was held on November 18, 2011 before an *en banc* panel. A decision in this case is still pending.

IV. JOINT INFRINGEMENT AND THE CURRENT STATE OF THE LAW

In light of the Federal Circuit decisions discussed above, the current trend in the law on joint infringement seems clear. On the one hand, it appears that the Federal Circuit has set an almost insurmountable standard for Plaintiffs with respect to proving liability for infringement of a method claim under a theory of joint infringement. Yet, on the other hand, the Federal Circuit has set forth a significantly lower standard with regards to proving liability for infringement of a system claim that requires more one than one party to operate it.

¹⁷⁵ *See id.* at *17.

¹⁷⁶ *McKesson Techs. Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 10674, *1-*2 (Fed. Cir. May 26, 2011).

¹⁷⁷ *Id.* at *2.

More specifically, in accordance with Federal Circuit law, to directly infringe a method claim an alleged infringer must perform, or direct or control a third party to perform, each and every step of the claimed method.¹⁷⁸ In both *Akamai* and *McKesson*, the Federal Circuit held that the “direction or control” standard requires the alleged infringer to either have an agency relationship with the third party or a contractual relationship obligating the third party to perform the steps of the claimed method.¹⁷⁹ The interesting thing to note here is that both *Akamai* and *McKesson* were vacated and are now both pending *en banc* before the Federal Circuit.¹⁸⁰ Accordingly, while the express requirement that an agency relationship or contractual obligation exist between multiple parties is not exactly the current state of the law, at the moment, *BMC Resources* and *Muniauction* are still good law in this area. Therefore, to establish joint infringement under *BMC Resources* and *Muniauction* requires, at a minimum, that the alleged infringer be vicariously liable for a third party’s actions, which, as the Federal Circuit has acknowledged, bears a striking resemblance to simply requiring an agency relationship.¹⁸¹

While the Federal Circuit seemingly set forth an overwhelmingly high standard for proving liability under joint infringement of a method claim, it was surprisingly more lenient with respect to establishing infringement of system claims that require more than one party to operate it. Particularly, in *Centillion*, the Federal Circuit made it easy for patent owners to avoid joint infringement altogether by setting forth a broad definition for establishing the “use” of a system for purposes of infringement under 35 U.S.C. § 271(a).¹⁸² The Federal Circuit specifically held that for an accused infringer to be found liable for direct infringement for its

¹⁷⁸ *Muniauction, Inc.*, 532 F.3d at 1329.

¹⁷⁹ See *Akamai Techs., Inc.*, 629 F.3d at 1320; and *McKesson Techs. Inc.*, 2011 U.S. App. LEXIS 7531 at *9.

¹⁸⁰ See *Akamai Techs., Inc.*, 419 Fed. Appx. at 989-990; and *McKesson Techs. Inc.*, 2011 U.S. App. LEXIS 10674 at *1-*2.

¹⁸¹ See *BMC Res., Inc.*, 498 F.3d at 1379; and *Muniauction, Inc.*, 532 F.3d at 1329.

¹⁸² See *Centillion Data Sys., LLC*, 631 F.3d at 1283-1285.

“use” of a claimed system, the accused infringer must put the invention into service, *i.e.*, “control the system as a whole and obtain benefit from it.”¹⁸³ Critically, it does not matter whether parts of the claimed system are not in the possession of the accused infringer, as long as the accused infringer is using elements of the claimed system for its patented purpose.¹⁸⁴

Accordingly, under this liberal standard of “use,” accused infringers will often be unable to establish that the claimed system requires multiple parties to be infringed—a threshold issue that must be established before joint infringement can even be considered¹⁸⁵—and thus more often than not joint infringement may never even come into play for system claims. It is, therefore, significantly easier for patent owners to find an accused infringer liable for infringement of a system claim, even if the system claim, on its face, appears to raise a joint infringement issue. With that said, if a Court determines that multiple parties are required to “use” the claimed system, the Court would then be forced to apply the more stringent “direction or control” standard as it would for method claims.¹⁸⁶

The bottom-line is clear, to establish joint infringement under the new Federal Circuit standard, “neither collaboration nor joint action nor facilitation nor authorization nor invitation can overcome the immutable barrier to infringement when all of the participating entities are not under the ‘control or direction’ of a mastermind infringer.”¹⁸⁷

¹⁸³ *Id.* at 1284.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.* at 1285.

¹⁸⁶ *See id.* at 1286-1287.

¹⁸⁷ *McKesson Techs. Inc.*, 2011 U.S. App. LEXIS at *17.

V. IMPACT ON THE RIGHTS OF PATENT OWNERS AND BEYOND

The current standard for determining patent infringement via joint infringement liability, as discussed in detail above, poses several obvious issues for patent owners, innovation, and the patent system in general. The most obvious issue is that the “direction or control” standard creates an easily exploitable loophole for all potential infringers of patents having claims that require at least two parties to infringe. For example, under the Federal Circuit’s joint infringement standard, an accused infringer can avoid infringing claims requiring the actions of more than one party by merely having just one task of the patented claim be performed by a third party. As such, with this new standard in place, accused patent infringers are essentially provided with a license to knowingly and egregiously infringe patents without any repercussions. Consequently, Defendants are unjustly benefitting at the expense of patent owners’ time, effort, and resources that they are expending to develop new inventions.

It should not be this easy to avoid patent infringement. Not to mention, the standard encourages, if not begs, accused infringers to conduct business in this manner simply to avoid liability for patent infringement. The patent system was not created so that it can be circumvented with such ease. Nor was it developed to encourage such an egregious unjust enrichment for accused infringers. The patent system was designed as a way to increase the storehouse of public knowledge by encouraging the development and disclosure of otherwise secret inventions in exchange for allowing inventors to have exclusive rights over their inventions for a limited time.¹⁸⁸ Encouraging the type of behavior employed by accused infringers, as the Federal Circuit has done and continues to do, runs contrary to the very reason the patent system was created. The new joint infringement standard leaves patent owners remediless to joint or collaborative infringers that strategically divide the tasks of a patented

¹⁸⁸ *Bonito Boats*, 489 U.S. at 150-151.

claim requiring actions by multiple parties in an effort to escape liability for patent infringement. Moreover, this type of conduct deprives patent owners their end of the bargain for disclosing their invention to the public by affording them significantly less protection than originally bargained for, while also flouting the entire patent system.

Leaving patent owners remediless for the infringement of their patents will most likely be detrimental to the public as well. For example, an alarming consequence resulting from the new joint infringement standard is the possibility that corporations, inventors, and innovators alike will cease or dramatically reduce their research and development efforts. It is particularly likely that corporations and inventors will expend less time and resources for research and innovation. As such, the new standard for proving joint infringement is likely to stifle innovation. The logical sequence of events is simple: (i) the new standard significantly weakens the protection afforded by patents for inventions that require multiple parties to infringe, also coined, interactive inventions, by Judge Newman of the Federal Circuit; (ii) because patent owners are essentially stripped of their exclusive rights to these inventions, entities will discontinue expending its resources to develop new inventions. The incentive to innovate essentially evaporates with the implementation of this newly minted rule. This consequence is particularly distressing, as the need to further develop and innovate is critical to the health of this country's economy. Not to mention, it was this incentive that served as one of the main reasons for creating the U.S. patent system. We are better off as a whole if people continue to innovate.

It is clear that the Federal Circuit's newly minted "direction or control" standard detrimentally impacts patent owners and the public. The new rule leaves patent owners remediless against joint infringers working collaboratively to infringe a patent—a consequence

that is simply unjust. It also completely undermines the main goal of the patent system: creating incentives to innovate while spreading knowledge for the good of the public.

VI. CLOSING THE JUDICIALLY CREATED LOOPHOLE

The above analysis begs the question: if the new rule is wrong than what is the correct standard for determining joint infringement? The following sections provide what should be the standard applied in joint infringement cases as well as several solutions for closing the loophole created by the Federal Circuit.

a. The Correct Standard for Determining Direct Infringement by Multiple Parties

The new law on joint infringement is unsupported by precedent predating *BMC Resources*, completely out of sync with the law on tort liability, and contrary to the patent law statutes and public policy.

Both Supreme Court and Federal Circuit precedent prior to *BMC Resources* is clear on the issue of infringement by multiple parties. In *Aro*, the Supreme Court analogized joint infringers to joint tort-feasors.¹⁸⁹ Notably, the Supreme Court makes no mention of a standard requiring a particular relationship status between the separate entities causing the infringement nor does the Supreme Court even raise the issue that one party must “direct or control” the other. The Supreme Court also alluded to the fact that a theory of tort liability known as joint and several liability is the applicable standard to apply in patent infringement cases involving

¹⁸⁹ *Aro Mfg Co.*, 377 U.S. 476, 500 (U.S. 1964) (“It is true that a contributory infringer is a species of joint-tortfeasor, who is held liable because he has contributed with another to the causing of a single harm to the plaintiff.”).

multiple parties.¹⁹⁰ Moreover, it has long been the practice of U.S. Courts to employ the common-law principles of torts in patent infringement cases.¹⁹¹

The Federal Circuit also appeared to establish a similar standard for patent infringement by multiple parties pre-*BMC Resources*. Specifically, the Federal Circuit in *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565 (Fed. Cir. 1983), determined that contributory infringement can be found when the accused infringer's customer performed one of the steps of the claimed method.¹⁹² The Federal Circuit explained that “[b]ecause Advance’s customers, not Advance, applied the diazo coating, Advance cannot be liable for direct infringement . . . , but could be liable for contributory infringement.”¹⁹³ In following the *Fromson* standard, several years later the Federal Circuit fully acknowledged a jury instruction attempting to summarize the state of the law of joint infringement as the correct statement of the law.¹⁹⁴ The jury instruction was as follows:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.¹⁹⁵

¹⁹⁰ *See id.* at 501.

¹⁹¹ *Carbice Corp. of America v. American Patents Dev. Corp.*, 283 U.S. 27, 33 (U.S. 1931) (“Infringement, whether direct or contributory, is essentially a tort, and implies invasion of some right of the patentee.”).

¹⁹² *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1568 (Fed. Cir. 1983)

¹⁹³ *Id.*

¹⁹⁴ *On Demand Machine Co. v. Ingram Industries, Inc.*, 442 F.3d 1331, 1344-45 (Fed. Cir. 2006)

¹⁹⁵ *Id.*

Accordingly, in 2006, the law of joint infringement based on Supreme Court and Federal Circuit precedent was clear: parties collaborating to infringe a patent are joint infringers and therefore are both jointly liable to the patent owner.¹⁹⁶

Because patent infringement is considered a strict liability tort¹⁹⁷ and has developed according to concepts of tort liability,¹⁹⁸ it is only logical that patent infringement remain aligned with the common principles of tort liability. However, the new standard for joint infringement is completely out of sync with the common concepts of tort liability and in particular with the concept of joint tort-feasors. The law of tort liability for a harm resulting from the acts of two parties is clearly represented in the *Restatement Second of Torts*. For example, § 875 states that, “each of two or more persons whose tortious conduct is a legal cause of a single and indivisible harm to the injured party is subject to liability to the injured party for the entire harm,”¹⁹⁹ § 876(a) sets forth, “for harm resulting to a third person from the tortious conduct of another, one is subject to liability if he does a tortious act in concert with the other or pursuant to a common design with him,”²⁰⁰ and § 877(c) provides, “for harm resulting to a third person from the tortious conduct of another, one is subject to liability if he permits the other to act upon his premises or with his instrumentalities, knowing or having reason to know that the other is acting or will act tortuously.”²⁰¹ Each of the aforementioned tort principles sets forth a standard for finding liability for joint tort-feasors. Notably, none of the sections of the *Restatement Second of Torts* require one party to “direct or control” the other. All that is required for finding liability

¹⁹⁶ *Id.*

¹⁹⁷ *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007).

¹⁹⁸ *Aro Mfg Co.*, 377 U.S. 476, 500 (U.S. 1964).

¹⁹⁹ Restatement (Second) of Torts § 875 (1979).

²⁰⁰ Restatement (Second) of Torts § 876(a) (1979).

²⁰¹ Restatement (Second) of Torts § 877(c) (1979).

under concepts of tort liability is a showing that the parties acted in concert or pursuant to a common design.

It is this foundation that the standard for joint patent infringement should derive from. However, because patent infringement is a type of strict liability tort,²⁰² the standard for joint infringement of a patent should slightly diverge from common law joint tort-feasor principles. In particular, a cause of action exists against a joint tort-feasor based on causation and foreseeability. However, considering that at least one act necessary to find infringement in many joint infringement cases is generally performed by an end user or customer of the accused infringer, relying on just causation and foreseeability under these circumstances would create an unjust and unworkable result. It would be completely unreasonable to extend liability for joint patent infringement to every foreseeable use of the patent, including the use by unsuspecting consumers, who know nothing about the patent, but who merely provide the last piece or step of the claimed invention. Therefore, while common law tort principles with respect to joint tort-feasors is the proper starting point for determining the correct standard for joint patent infringement, it is essential to strike a balance between merely requiring two parties to act in concert and requiring one party to “direct or control” the other. As will be discussed below, the appropriate standard for joint patent infringement should require a particular level of culpable conduct on the part of all the joint infringers that are to be held liable for patent infringement.

Finally, the newly minted law on joint infringement is contrary to both the patent law statutes and public policy. Section 101 of the Patent Act clearly sets forth the requirements for

²⁰² *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007).

obtaining a patent.²⁰³ Accordingly, anyone who invents something new is entitled to obtain a patent for their invention.

With the advent of the information-age a new type of technology developed that served to benefit the public. Specifically, advances in computer systems led to the development of new interactive computer managed methods and systems requiring interaction between computer systems and computer users. In light of these new discoveries, inventors applied for and were eventually granted patents on these new types of inventions. These types of inventions meet all the requirements and conditions of the Patent Act and therefore are entitled to receive the benefits of the patent system. However, the Federal Circuit's new standard for joint infringement essentially removes these inventions from the purview of the patent system because the exclusive right allegedly granted to the patent owners via these issued patents is nonexistent. Even though these patent owners have technically been granted "patents" by the Patent Office, from their point of view they are not patents at all because they fail to serve the most basic function of a patent: the right to exclude others from making, using, and selling their invention. Taking it one step further, the patents granted are arguably not even patents by law because they cannot be infringed and therefore do not afford their owners any rights, let alone the right to exclude. Because these inventions qualify for patents under the Patent Act, owners of these patents should not be left remediless—such a result turns the patent system on its head and runs contrary to the patent laws of this country.

Finally, none of the sub-sections of 35 U.S.C. § 271, the patent infringement statute, mention, let alone require, that a patent owner must prove liability under joint infringement by

²⁰³ 35 U.S.C. § 101 (1952) ("*whoever* invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.") (emphasis added).

showing that the accused infringer “directs or controls” a third party.²⁰⁴ Not to mention, a closer reading of 35 U.S.C. § 271 in light of 35 U.S.C. § 101, the patentable subject matter statute, reveals the use of similar language for setting forth who may be found liable for patent infringement and who may be eligible to obtain a patent. Notably, both statutes use the same pronoun, “whoever.” It is well established that there can be multiple inventors named on a patent.²⁰⁵ Therefore, it stands to reason that use of the pronoun, “whoever,” in the infringement context indicates it was contemplated that there can be multiple infringers of a patent.

b. Closing the Joint Infringement Loophole

While the current state of the law for determining liability under a theory of joint infringement is contrary to both the Patent Act and earlier precedent and is out of sync with traditional tort law, there are several ways to remedy the situation. First, the most logical way to handle cases regarding joint infringement is to follow the law of torts for joint tort-feasors with an added culpability requirement. To avoid holding the general population jointly and severally liable for patent infringement, most of whom are innocent consumers, it is particularly important to distinguish the concepts of joint tort-feasors and joint patent infringers. As mentioned above, the concept of joint and several liability under torts law relies largely on causation and foreseeability principles.²⁰⁶ The appropriate standard for joint patent infringement should derive from common law tort principles but should include an additional culpability requirement. More specifically, the proper standard for joint infringement should not only require the patent owner to show that multiple parties acted in concert but that the parties purposefully collaborated to obtain a benefit from the collaboration. It is this standard that obtains the appropriate balance

²⁰⁴ See 35 U.S.C. § 271 (1952).

²⁰⁵ 37 C.F.R. § 1.45 (1995).

²⁰⁶ See Restatement (Second) of Torts § 875 (1979); Restatement (Second) of Torts § 876(a) (1979); and Restatement (Second) of Torts § 877(c) (1979).

between joint tort-feasors liability and the strict “direction and control” standard set forth by the Federal Circuit. This result would also serve to realign the law on joint infringement with earlier Supreme Court and Federal Circuit precedent.

A second remedy would be to have Congress enact a new provision under 35 U.S.C. § 271 to specifically codify the above-identified concept of joint tort-feasors liability with the addition of a culpability requirement. In particular, the new legislation should be drafted to set forth the necessary relationship that must be established between multiple parties and the required culpability necessary to justify liability for patent infringement.

VII. CONCLUSION

The current state of the law on joint infringement under *BMC Resources* and its progeny has created an insurmountable loophole for patent owners to prove infringement of claims requiring multiple parties. The standard set forth by *BMC Resources* unjustly leaves patent owners without a remedy for patent infringement. Moreover, the standard is contrary to the Patent Act, earlier precedent, tort law, and public policy. As such, to rebalance the scales of justice back towards patent owners joint infringement theory needs to be realigned with well established concepts of tort law, where the only requirement to prove joint infringement is a showing that separate parties acted in concert, with the necessary culpability to infringe the asserted claim.