

Joint Infringement After *BMC*: The Demise of Process Patents

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“The patent system . . . added the fuel of interest to the fire of genius.” – Abraham Lincoln¹

I. INTRODUCTION

There is a moment when inspiration strikes in an otherwise average life—it can be described as none other than a “flash of genius.”² When innovation moves into the larger culture, it takes on a life—and commercial possibilities—of its own.³ These flashes of genius have cured polio,⁴ created weapons of mass destruction,⁵ and allowed humans to fly.⁶ To protect these inventions, the patent system was born.⁷

The power of the patent system and the critical protection it affords inventors is illustrated by the infamous story of Bob Kearns.⁸ After a rogue champagne cork nearly blinded Kearns,⁹ he began thinking about

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1. Abraham Lincoln, President of the United States of America, Lecture on Discoveries, Inventions, and Improvements (Feb. 22, 1860).

2. In 1941, the Supreme Court stated that, in order to be patentable, a “new device, however useful it may be, must reveal the flash of creative genius not merely the skill of the calling.” *Cuno Eng’g Corp. v. Automatic Devices Corp.*, 314 U.S. 84, 91 (1941). However, the “flash of genius” requirement for patentability was expressly overturned by the Court in 1966 in *Graham v. John Deere Co. of Kan. City*. 383 U.S. 1, 16 n.7 (1966) (“Rather than establishing a more exacting standard, *Cuno* merely rhetorically restated the requirement that the subject matter sought to be patented must be beyond the skill of the calling.”).

3. JOHN SEABROOK, FLASH OF GENIUS AND OTHER TRUE STORIES OF INVENTION (St. Martin’s Griffin 2008).

4. Benzyl Alcohol Stabilized Polio Vaccines, U.S. Patent No. 3,097,142 (filed Mar. 30, 1960).

5. Cluster Bomb, U.S. Patent No. 2,809,583 (filed Dec. 4, 1952).

6. Airplane Wing, U.S. Patent No. 1,691,942 (filed Sept. 12, 1927).

7. See *infra* Part II.A (discussing patents generally).

8. See SEABROOK, *supra* note 3, at 1–31.

9. Fortunately, Bob blinked before the champagne cork could render him sightless. *Id.* at 7.

the functionality of blinking.¹⁰ When driving on a rainy night some time later, inspiration struck: why couldn't a wiper work more like an eyelid?¹¹ Applying the principles of blinking to a windshield wiper, the intermittent windshield wiper was born.¹² Kearns filed his first patent application in 1964 and was granted a patent in 1967.¹³

Kearns offered his invention to Ford, who promised him a contract if he would disclose the engineering of the wipers.¹⁴ Although Kearns obliged,¹⁵ he was dismissed from the deal without a contract or an explanation.¹⁶ Ford began selling Kearns's patented wipers a few years later, and the rest of the principal automobile manufacturers followed suit.¹⁷ Within ten years Ford had sold 20.6 million cars with Kearns's patented wipers, with profits calculated at \$557 million.¹⁸

Kearns filed a patent infringement suit against Ford,¹⁹ which quickly consumed all of his time and money.²⁰ Kearns refused to settle upon

10. John Monaghan, *Inventor's Ordeal; A New Film Tells the Story of Detroit Robert Kearns, Who Fought Automakers to Win Credit for his Prized Invention: Intermittent Windshield Wipers*, DETROIT FREE PRESS, Sept. 28, 2008, at G1.

11. SEABROOK, *supra* note 3, at 1.

12. See Curt Wohleber, *The Windshield Wiper: Nonstop Ones Made Drivers Crazy. Inventing a Solution Did the Same to Robert Kearns*, INVENTION & TECH. MAG., Summer 2007, available at http://www.americanheritage.com/articles/magazine/it/2007/1/2007_1_6.shtml. Prior to Kearns's invention, windshield wipers operated nonstop at only one speed. The intermittent windshield wipers Kearns invented operated at a timed speed, like an eye. He could vary the time the wipers dwelled at the base of the windshield and the speed with which they swept across the windshield; he had even figured out a way of making the wipers automatically adjust their interval to the amount of water on the glass. SEABROOK, *supra* note 3, at 8.

13. SEABROOK, *supra* note 3, at 15. Kearns was awarded three patents total for his work on intermittent windshield wipers. See U.S. Patent Nos. 3,351,836 (filed Dec. 1, 1964), 3,602,790 (filed Oct. 18, 1967), and 4,544,870 (filed Sept. 7, 1982).

14. In his book, Seabrook recalls a conversation Kearns had with a Ford supervisor, Roger Shipman: "Wipers were a safety item, Shipman explained, and the law required disclosure of all the engineering before Ford could give Kearns a contract. This sounded reasonable to Kearns, so he explained to the Ford engineers exactly how his intermittent wiper worked." SEABROOK, *supra* note 3, at 15.

15. *Id.* The patented invention had already undergone a long period of testing by Kearns. *Id.* at 13. As directed by Ford, Kearns tested the wipers through more than three million cycles in his homemade basement laboratory. *Id.* Through this process, Kearns's financial situation was becoming dire; he had to incur the costs of testing his invention, obtaining a patent, and supporting his family on meager doctoral fellow wages. *Id.* at 14.

16. *Id.* at 15.

17. *Id.* at 18–19. In 1974 General Motors followed suit, followed by Chrysler in 1977. *Id.* at 19. Saab, Honda, Volvo, Rolls-Royce, and Mercedes soon followed. *Id.*

18. *Id.* Ford sold the intermittent wipers—Kearns's invention—for \$37 per set. *Id.*

19. *Kearns v. Ford Motor Co.*, 203 U.S.P.Q. 884 (E.D. Mich. 1978).

20. As one observer put it, because of the lawsuit, Kearns "lost the war in terms of his personal life." His wife left him, explaining that "Robert expected me to have the same focus he did, and I just didn't have it." Monaghan, *supra* note 10.

principle—he desired justice, not money.²¹ So twelve years after the case was filed it proceeded to trial.²² The jury found that Ford had infringed Kearns’s patents and awarded him \$5.2 million, equivalent to about thirty cents a wiper.²³ After Kearns had spent \$10 million in legal fees and seventeen years in litigation, the David and Goliath tale had ended. Kearns had won the battle against the car companies.²⁴ Since its conception in 1963, Kearns’s invention and ensuing litigation consumed forty-two years of his life.²⁵

Kearns’s story illustrates the profound power of invention and its impact on individuals and society alike.²⁶ Innovation highlights the brilliance in the mundane, illuminating those inventions which would otherwise be dismissed as a mere detail in everyday life.²⁷ Until an

21. Kearns refused Ford’s settlement offer of \$30 million. “To accept money from Ford would have been like admitting it was okay for them to do what they did,” Kearns said. SEABROOK, *supra* note 3, at 28; *see also* John Seabrook, *The Flash of Genius: Bob Kearns and his Patented Windshield Wiper have been Winning Millions of Dollars in Settlements from the Auto Industry, and Forcing the Issue of Who Owns an Idea*, NEW YORKER, Jan. 11, 1993, available at http://www.newyorker.com/archive/1993/01/11/1993_01_11_038_TNY_CARDS_000363341.

22. SEABROOK, *supra* note 3, at 27.

23. *Id.* at 28. Kearns had also filed suit against Chrysler, resulting in an award of \$18.72 million, or about ninety cents a wiper. *Kearns v. Chrysler Corp.*, 32 F.3d 1541 (Fed. Cir. 1994). The compensation Kearns received, for the amounts of thirty and ninety cents per wiper plus interest, respectively, were a far cry from the \$37 per set that Ford had charged consumers. *See supra* note 18.

24. *Compare* Monaghan, *supra* note 10 (noting that Kearns is somewhat of a local legend in Detroit for winning his battle with the car companies), *with* SEABROOK, *supra* note 3, at 31 (detailing the feelings of hopelessness that still haunt Kearns). While the outcomes of the cases were viewed as a monumental victory for Kearns and small, private inventors everywhere, Kearns viewed the outcomes as devastating losses. “The moral is that unlawful conduct does pay,” he said. “I don’t see how any of us could go home to our children and say it does not.” SEABROOK, *supra* note 3, at 31.

25. Kearns’s saga is now the subject of the movie *Flash of Genius*, for which the tagline is “Corporations have time, money, and power on their sides. All Bob Kearns had was the truth.” *See* IMDb: Internet Movie Database, *Flash of Genius* (2008), <http://www.imdb.com/title/tt1054588> (last visited Sept. 19, 2009); *see also* FLASH OF GENIUS (Universal Studios 2008).

26. *See* Monaghan, *supra* note 10.

27. The words of Ted Daykin are particularly illustrative of this point. During the Kearns saga, Daykin was an engineer for Ford. He stated:

You know, a lot of people don’t really spend a lot of time thinking about their wipers. They turn them on, they turn them off, and that’s about it. But the fact is, there are dozens of inventions that go into the way your wipers work. What causes wipers to complete their wipe cycle when they’re turned off midwipe? How, when they have returned to the base of the windshield, do they park themselves out of the driver’s sight? In the industry, we call that feature “depressed park.” How are wipers synchronized with the wash mechanism—what makes the wiper go on automatically when you push the washer, and give you two or three wipes? How about the rear-window wiper? Well, when you talk about that stuff you’re talking about the

invention is launched into the stream of commerce, no one can be certain of its impact or success.²⁸ However, an inventor is robbed of all control over attaining that success when one infringes his patent.²⁹ Most importantly, Kearns's story depicts the critical role the patent system plays in our society: the protection and enforcement of intellectual property rights.³⁰

While Kearns triumphed by using the judicial system to enforce his rights, present patent owners no longer have the luxury of knowing the judiciary will faithfully protect their patent rights.³¹ In 2007, the Federal Circuit issued a watershed decision in *BMC Resources, Inc. v. Paymentech, L.P.* (“*BMC*”),³² which severely limits the rights of patent owners by increasing the standard required to prove joint patent infringement.³³ This Note suggests that the standard imposed by the *BMC* decision is a failure on the part of the Federal Circuit to protect and enforce the rights of patent owners because it leaves a glaring loophole in patent law that is inconsistent with patent precedent and policy.³⁴

inventions of windshield-wiper engineers.

SEABROOK, *supra* note 3, at 10–11.

28. See WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 304 (The Bellknap Press of Harvard Univ. Press 2003) (discussing the significance of uncertainty of an invention's commercial success on the economic structure of intellectual property law).

29. An inventor's control of the commercial aspects of their article is eviscerated when they cannot control the making, using, selling, offering to sell, or importing of their invention. See ROCHELLE C. DREYFUSS & ROBERTA R. KWALL, *INTELLECTUAL PROPERTY: CASES AND MATERIALS ON TRADEMARK, COPYRIGHT, AND PATENT LAW* 564 (Robert C. Clark et al. eds., 2004) (discussing how an inventor will control the economic exploits of the invention when patent rights are protected as intended).

30. See SEABROOK, *supra* note 3, at xiv. Writing about Kearns's saga, the author stated that “I realized that Kearns v. the auto industry was about the nature of invention itself, and about the federal government's attempts to regulate and legislate ‘invention . . .’” *Id.*

31. See, e.g., Kristin E. Gerdelman, Comment, *Subsequent Performance of Process Steps by Different Entities: Time To Close Another Loophole in U.S. Patent Law*, 53 EMORY L.J. 1987 (2004) (describing the decreased judicial enforcement of patent rights in the context of process patents).

32. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373 (Fed. Cir. 2007).

33. Patent infringement occurs when one without authority makes, uses, offers to sell, sells, or imports the patented invention into the United States. 35 U.S.C. § 271(a) (2006). Joint patent infringement occurs when the actions of *multiple entities* without authority combine to make, use, offer to sell, sell, or import the patented invention into the United States. See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 500 (1964) (recognizing and referencing joint infringement); see also *infra* Part V.A (discussing how the “direction or control” standard diminishes, and in some cases, destroys the exclusive rights of process patent owners because the patents are particularly susceptible to circumvention and judicial enforcement of rights are uncertain at best).

34. See *infra* Part V (discussing the devastating impact that *BMC* will have on patent owner's

This Note begins by providing an overview of patent protections, patent policy, and the evolution of infringement liability in Part II.³⁵ Next, Part III discusses the *BMC* decision by tracking the holdings and reasoning of the magistrate court, district court, and ultimately, the Federal Circuit.³⁶ Part IV then analyzes *BMC*'s "direction or control" standard for joint infringement and the reasoning behind the novel standard, especially in light of the statutory scheme and patent policy.³⁷ Finally, Part V outlines the harmful impact that the *BMC* holding will have on the patent system generally and the rights of patent owners individually.³⁸

II. BACKGROUND

To appreciate *BMC*'s significance, it is first necessary to understand the nature of patents, the policies underlying the patent system, and the development of infringement jurisprudence.³⁹ Accordingly, this Part first provides a general overview of patents.⁴⁰ Next, it discusses the policies underlying the patent system⁴¹ and provides an overview of patent infringement.⁴² Finally, this Part follows the evolution of joint infringement liability⁴³ by explaining the two prominent frameworks for analyzing joint infringement allegations before *BMC*: the "some

rights).

35. See *infra* Part II (providing an overview of patents, patent policy, and the evolution of infringement liability by multiple entities).

36. See *infra* Part III (discussing the trilogy of *BMC* opinions, and the reasoning behind each one).

37. Compare *infra* Part IV (discussing why the "direction or control" standard is too stringent a requirement such that it is inconsistent with precedent, policy, and fundamental tort principles, and illustrating why, at most, "participation and combined action," is required to impose liability for joint infringement), with Long Truong, *After BMC Res., Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, NW. U. L. REV., at Parts III–IV (forthcoming 2009), available at <http://ssrn.com/abstract=1121947> (recognizing that the "direction or control" standard imposes a loophole in patent protection, yet sets forth a standard for joint infringement liability that is in fact higher than the "direction or control" standard because it requires specific intent on the part of all joint infringers in order to impose liability for joint infringement).

38. Compare *infra* Part V (discussing the detrimental impact that the *BMC* "direction or control" standard has, and will continue to have, on the patent system), with Truong, *supra* note 37, at Part IV (accepting the "direction or control" standard as workable and attempting to supplement the standard with the elements of common law civil conspiracy).

39. See generally Part II (providing a background to the *BMC* decision).

40. See *infra* Part II.A (explaining patents generally).

41. See *infra* Part II.B (discussing U.S. patent policy).

42. See *infra* Part II.C (explaining patent infringement).

43. See *infra* Part II.D (illustrating the evolution of joint infringement liability, beginning in the early 1900s).

connection” standard⁴⁴ and the “participation and combined action” standard.⁴⁵

A. Patents Generally

As authorized by the United States Constitution, inventors of new and useful products and methods⁴⁶ are granted exclusive rights to their inventions through the issuance of a patent.⁴⁷ A patent grants a negative right. That is, a patentee⁴⁸ has the right to exclude all others from making, using, offering to sell, selling, or importing its invention, although the patent does not authorize the patentee to take any of those actions himself.⁴⁹

The claims of a patent define the scope of the right to exclude.⁵⁰ Each claim defines a separate invention that is the exclusive proprietary interest of the patentee for the duration of the patent.⁵¹ Within each claim, elements are recited that further define and limit the scope of the

44. See *infra* Part II.E (illustrating the “some connection” standard).

45. See *infra* Part II.F (discussing the “participation and combined action” standard set forth in *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1334 (Fed. Cir. 2006)).

46. Patentable subject matter is defined as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof” by Section 101 of the U.S. Patent Act. 35 U.S.C. § 101 (2006). Section 102 of the U.S. Patent Act more specifically delineates the “novelty” requirements of patentability. *Id.* § 102. See also Gerdelman, *supra* note 31, at 1989–90 (discussing patents generally).

47. Article I of the Constitution grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. CONST. art. I, § 8, cl. 8.

48. A “patentee” is one who owns title to a patent. BLACK’S LAW DICTIONARY 1162 (8th ed. 2004). For purposes of this Article, “patentee” will be used interchangeably with “patent owner.”

49. Any person who makes, uses, offers to sell, sells, or imports a patented invention into the U.S. is liable for infringement. 35 U.S.C. § 271(a) (2006). Patent law also creates the right to prevent others from inducing direct infringement, *id.* § 271(b); the right to prevent domestic contributory infringements, *id.* § 271(c); the right to prevent others from selling components for assembly of the patented invention abroad, *id.* § 271(f); and the right to prevent others from importing into the United States articles manufactured with a patented process, *id.* § 271(g). This Article will only examine direct infringement.

A patent does not authorize a patent owner to practice his own invention. See DREYFUSS & KWALL, *supra* note 29, at 564 (noting the negative rights conferred to a patentee). For example, although an inventor might obtain a patent on a new drug to treat a disease, he is not authorized to make, use, sell, offer to sell, or import the patented drug in the United States until the inventor meets safety and efficacy standards imposed by the United States Food and Drug Administration.

50. 35 U.S.C. § 112 (2006) (requiring that a patentee precisely state the borders of the claimed invention). The term of patent protection is twenty years from the date the patent application is filed for most patents filed on or after January 1, 1995. *Id.* § 154(a)(2). For patents that were filed prior to January 1, 1995, but were in force on that date, the term is seventeen years from the date of issuance or twenty years from the date of application, whichever is longer. DREYFUSS & KWALL, *supra* note 29, at 564.

51. J. THOMAS MCCARTHY, MCCARTHY’S DESK ENCYCLOPEDIA OF INTELLECTUAL PROPERTY 40 (BNA Books 1991).

claim.⁵² Process claims⁵³ encompass a series of elemental steps to be followed in performing the claimed process.⁵⁴ As a general understanding of patents is important for an infringement analysis, it is equally as important to keep in mind the policies underlying patent jurisprudence.

B. United States Patent Policy

“A patent, by its very nature, is affected with public interest.”⁵⁵ The Constitution’s patent provision is utilitarian in structure and purpose: the patent laws are designed to benefit society by increasing the body of available knowledge in the public domain.⁵⁶ A patent, however, is an exception to rules that denounce monopolies⁵⁷ and support public access to free and open markets.⁵⁸ Thus, the Framers’ willingness to grant exclusive rights evinces the importance of innovation.⁵⁹ Indeed, the patent system was carefully crafted to balance the interest in fostering innovation with the interest in avoiding monopolies that stifle competition.⁶⁰

52. *Id.*

53. The terms “process claims” and “method claims” are used interchangeably.

54. A patented process is defined as “a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.” *Cochrane v. Deener*, 94 U.S. 780, 788 (1876). The term “process” was also given a statutory definition, meaning “a process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.” 35 U.S.C. § 100 (2006).

55. *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945).

56. The object and policy of the patent laws are rooted in “the Framers’ intent to promote progress in the useful arts.” *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1574 (Fed. Cir. 1987). See also CRAIG A. NARD, DAVID W. BARNES & MICHAEL J. MADISON, *THE LAW OF INTELLECTUAL PROPERTY* 651–52 (Aspen Publishers 2006) (discussing how fostering innovation is the primary objective of the patent laws).

57. The Framers were generally suspicious of monopolies. See Letter from James Madison to Thomas Jefferson (Oct. 17, 1788), in 5 *THE WRITINGS OF JAMES MADISON*, 1787–90, at 269, 274–75 (Galliard Hunt ed., 1904). James Madison stated that monopolies are “justly classed among the greatest nuisances in government . . . Monopolies are sacrifices of the many to the few.” *Id.* See also *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 5 (1966) (stating that the Framers drafted the copyright clause of the Constitution “against the backdrop of the practices—eventually curtailed by Statute of Monopolies—of the Crown in granting monopolies to court favorites in goods or businesses which had long before been enjoyed by the public”).

58. *Precision Instrument Mfg. Co.*, 324 U.S. at 816.

59. See Gerdelman, *supra* note 31, at 1991 (discussing the Framers’ fear of monopolies, which stemmed from the abuse of monopoly power in England).

60. For example, the “inventing around” principle of patent law provides a limitation on the patent monopoly. See *infra* note 70 (detailing the “inventing around” principle). The social costs of providing a monopoly through patents center around the fear of decreasing the economic welfare. See LANDES & POSNER, *supra* note 28, at 310 (discussing whether patent law is socially cost-justified).

The patent system achieves its purpose by providing economic incentives to invent.⁶¹ Exclusive patent rights are inherently and inextricably intertwined with the economic benefits derived from market exclusivity;⁶² this nexus is the driving force that incentivizes innovation. The exclusivity of a patent gives the owner an essential monopoly over the market for its invention, the value of the patent being the economic benefits stemming from the monopoly power.⁶³

Patent law is structured to utilize these economic considerations in a variety of ways.⁶⁴ For example, a patent is granted only to the first inventor,⁶⁵ and protects against all independent duplication of the invention.⁶⁶ This provides inventors with economic incentives not only to invest in cutting-edge innovations, but also to race to be the first to put such knowledge in the public domain.⁶⁷ In addition to the

61. See generally LANDES & POSNER, *supra* note 28 (illustrating how the United States patent system provides economic incentives by virtue of the prevention of independent duplication, the grant of an exclusive yet limited monopoly, and the “inventing around” principle).

62. The exclusivity of a patent allows the patentee to set prices that are in excess of the marginal cost for the term of the patent. DREYFUSS & KWALL, *supra* note 29, at 565. Further, the patentee’s monopoly allows him to obtain an enormous percentage of the market value of his invention; assuming the patent would depreciate, the percentages would be even higher. LANDES & POSNER, *supra* note 28, at 295–96.

63. The monopoly markup of a patent is illustrated in the following economic model: At a discount rate of 10 percent, the present value of a constant stream of income to be received for twenty years is 85 percent of the same stream received in perpetuity. Thus, in effect, the patent statute allows the patentee to realize a maximum of 85 percent of the market value of his invention. The estimated depreciation rate of the average patent is 6 percent. Plugged into this formula, the twenty-year patent term would yield a maximum of almost 95 percent of the value of the patent in perpetuity at a 10 percent discount rate. LANDES & POSNER, *supra* note 28, at 296–97.

64. For example, patent rights are afforded only to *applied* research, which has immediate commercial value, as opposed to basic research. *Id.* at 306–07. Basic research, by definition, does not have immediate commercial value. The authors discuss how an enormous amount of basic research is produced every year without the benefit of patentability, and it is instead incentivized by rewards that involve prestigious academic appointments, lecture fees, grants that reduce teaching loads, and the prospect of Nobel and other prizes. The government thus limits intellectual property rights to *applied* research, in part because basic research has commercial value only as an input into further applied research activity. *Id.*

65. Only the first party to conceive of the invention and diligently reduce it to practice is entitled to a patent. See 35 U.S.C. § 102 (2006).

66. Unlike Copyright, which is authorized by the Constitution and is the counterpart of patent rights, a patent prevents any independent duplication of the invention rather than merely forbidding copying of it. Compare 35 U.S.C. § 271(a) (2006) (setting forth conduct which is deemed patent infringement), with DREYFUSS & KWALL, *supra* note 29, at 636 (discussing the requirements for copyrights protection). Not only will the author of a copyrighted work *not* infringe on the copyright of another whose work is exactly the same, but he will also be entitled to his own copyright protection. In the case of patents, even if another party independently conceived of the same invention, he would be precluded from making, using, selling, offering to sell, or importing his own independent invention. DREYFUSS & KWALL, *supra* note 29, at 564.

67. A “patent race” is spurred by the “first to invent” principle and the exclusive nature of

monopoly protection provided to a patent owner, other well-established principles of patent law further illustrate how it is structured to fulfill its purpose of incentivizing innovation. The “inventing around” principle stems from the patentability of an improvement on an invention⁶⁸ and the disclosure requirement,⁶⁹ and it provides a patentee’s competitor with economic incentives to use the information disclosed in the patent to “invent around” and improve upon the invention.⁷⁰ Additionally, the “experimental use” exception to infringement permits limited use of a patented invention to test its qualities or invent around it.⁷¹

Patent policy has long been afforded the utmost protection, even decisively trumping concerns of unfair competition laws.⁷² The

patent rights; market competitors race to be the first to discover and patent some new idea having commercial potential. DREYFUSS & KWALL, *supra* note 29, at 300. The first competitor to reach the finish line obtains the patent, and with it the full value of the invention, even if he beats his competitors by only a day. *Id.* at 301. However, the argument also exists that such a race can generate costs of invention that exceed the social benefits. *See id.* (discussing the wasteful duplication of effort by competing inventors).

The rule precluding any independent duplication of a patented invention has economic implications, because if patents did not protect against independent duplication, an inventor who had spent enormous sums to be the first to discover some useful new idea might find himself unable to recoup his costs because someone else, working independently toward the same goal, had duplicated his discovery within weeks or months after he had made it. LANDES & POSNER, *supra* note 28, at 295–96.

68. One may also obtain a patent on “any new and useful improvement” of a process, machine, manufacture, or composition of matter. 35 U.S.C. § 101 (2006).

69. A patentee must disclose his invention with such clarity that it would enable a person of ordinary skill in the art to practice the claimed invention. *Id.* § 112.

70. Competitors are encouraged to “invent around” the patented invention by achieving the benefits of the patent without duplicating the particular steps constituting it. LANDES & POSNER, *supra* note 28, at 299. The information disclosed in a patent will enable the competitor to determine the feasibility of inventing around without having to incur the cost of experimenting to obtain this information. *Id.* Particularly with pharmaceutical patents, competitors need not incur the steep research and development expenditures to put their own bioequivalent drug on the market at the end of the patent term. *Analyzing Brand Name and Generic Drug Costs in the U.S. and Eight Other Countries*, KNOWLEDGE@WHARTON (Wharton School at the Univ. of Pa., Phila.), Nov. 19, 2003, <http://knowledge.wharton.upenn.edu/article.cfm?articleid=879>.

71. *See* MCCARTHY, *supra* note 51, at 120–22 (discussing experimental use and the “inventing around” principle). Experimental use supplements the “inventing around” principle in that invention often occurs sequentially: the frontiers of knowledge expand more rapidly if one person’s insight can be used as a building block for future developments by another. DREYFUSS & KWALL, *supra* note 29, at 766.

72. Patents often legitimize restraints which, in the absence of the intellectual property right, would be per se violations of the antitrust laws. Robert P. Taylor & Michael J. Higgins, *Innovation and Antitrust*, in *INTELLECTUAL PROPERTY/ANTITRUST* 1993, at 805, 820 (PLI Pats., Copyrights, Trademarks, & Literary Prop., Course Handbook Series No. G4-3903, 1993). However, during 2002 hearings held by the Federal Trade Commission and Department of Justice on the conflicts between antitrust and patent law, Robert Pitofsky, the former chairman of the FTC, and James Rogan, the director of the Patent and Trademark Office, agreed that patent laws trump antitrust laws. In these hearings Federal Circuit Judge Pauline Newman commented that

rationale behind these decisions returns to the basic principle that intellectual property law seeks to enhance the incentives to invest in new and risky technology. But for such an incentive system to work, all viable options for commercial exploitation must be available to the patent owner.⁷³

C. Patent Infringement

A patentee may exercise its right to exclude others from practicing its invention by bringing a cause of action for infringement.⁷⁴ The crux of direct infringement lies in the “all elements rule,” which requires that an infringing party practice every element of the invention in order to be liable for direct infringement.⁷⁵ However, in *Crowell v. Baker Oil Tools*, an exception to this rule was recognized in the context of process patents.⁷⁶ The exception arises when a party employs another to perform infringing acts for him.⁷⁷ In addition to direct infringement, the

“the public disclosure role of patents is more important than ever.” *Antitrust: FTC, DOJ Hold Hearing on Overlap, Conflict, Between Antitrust Enforcement, Patent Law*, ELECTRONIC COM. & L. REP. (Bureau of National Affairs, Arlington, Va.), Feb. 13, 2002, available at 7 BNA ECLR 138.

The Supreme Court and Second Circuit unequivocally upheld the importance of patent policy in the early 1980s when both decided that patent policy prevailed over antitrust concerns. Robert P. Taylor, *Antitrust Issues in Licensing Intellectual Property Rights*, in 47TH ANNUAL ADVANCED ANTITRUST SEMINAR, at 357, 371–73 (PLI Corp. L. & Prac. Course Handbook Series No. 14482, 2007). In *Dawson v. Rohm & Haas*, the Supreme Court went well beyond the issue at hand to emphasize the fundamental right of a patent owner to “exclude others from profiting by the patented invention.” *Dawson v. Rohm & Haas*, 448 U.S. 176, 215 (1980). In *SCM Corp. v. Xerox Corp.*, the Second Circuit stated that patent policy seeks to promote the marriage of capital with new technology to create new enterprises and, as such, depends on the availability of commercially viable agreements for capturing the value of the new technology. *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1206 (2d Cir. 1981).

73. *SCM Corp.*, 645 F.2d at 1206.

74. A party is liable for direct infringement when they make, use, sell, offer to sell, or import the patented invention. 35 U.S.C. § 271(a) (2006). Causes of action to enforce a patent owner’s right to exclude run the gamut from high profile to absurd. *Compare* T.F.H. Pubs., Inc. v. Hartz Mountain Corp., 67 F. App’x. 599 (Fed. Cir. 2003) (patent owner sought to enforce her patent claiming a chewable, flavored dog toy), with Verdict Form at 6, *Saffran v. Boston Scientific Corp.*, No. 2-05-CV-547, 2008 WL 2716318 (E.D. Tex. July 9, 2008) (patent owner enforced patent claiming a heart stent to prevent heart attacks, resulting in a \$431.9 million dollar jury verdict).

75. *Prouty v. Draper*, 41 U.S. 336, 340 (1842). *Prouty v. Draper* is the seminal case setting forth the “all elements” rule, stating that when a “patent . . . is for a combination . . . unless it is proved that the whole combination is substantially used in the defendant’s [product], it is not a violation of the plaintiff’s patent.” *Id.* Where the patented invention is a method, direct infringement occurs only when all the steps of the method are performed. *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005).

76. *Crowell v. Baker Oil Tools*, 143 F.2d 1003 (9th Cir. 1944).

77. In *Crowell*, the court illustrated “another” as either an agent or an independent contractor, stating that “[i]t is obvious that one may infringe a patent if he employ an agent for that purpose

legislature has also recognized two causes of action for indirect infringement: contributory infringement⁷⁸ and inducement.⁷⁹ Both causes of action are predicated on a finding of direct infringement; there can be no indirect infringement in the absence of direct infringement.⁸⁰

D. Evolution of Patent Infringement Liability

Since the early twentieth century, courts have recognized the convergence of property and tort jurisprudence that exists in patent law.⁸¹ In 1908, the Supreme Court held that a patent confers property rights on a patentee; thus, patent infringement amounts to a tortious taking of the patentee's property.⁸² Under traditional tort theories of liability, actors are joint tortfeasors under three circumstances: when two or more persons (1) act in concert to commit a tort, (2) act independently but cause a single indivisible tortious injury, or (3) share responsibility for a tort because of vicarious liability.⁸³

The Supreme Court first recognized and referenced joint infringement in 1964 in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*⁸⁴ In *Aro*, unlicensed car manufacturers⁸⁵ sold cars with patented convertible tops to purchasers.⁸⁶ At issue in the case was

or have the offending articles manufactured for him by an independent contractor." *Id.* at 1004. It is important to note that an independent contractor is not always considered an agent, and is only an agent if the employer has a right to control the activities of the contractor. *Gen. Bldg. Contractors Ass'n, Inc. v. Pa.*, 458 U.S. 375, 395 (1982).

78. 35 U.S.C. § 271(c) (2006). Contributory infringement of a patent is the act of knowingly selling or offering to sell a nonstaple component of a patented invention, knowing it to be especially made or adapted for use in an infringement of such patent. *Id.*

79. *Id.* § 271(b). One who actively aids another person in directly infringing a patent is himself liable for the separate statutory tort of inducement of infringement. *Id.*; MCCARTHY, *supra* note 51, at 157. Although the statute does not require that a person "knowingly" aid and abet the direct infringement of another, the case law and legislative history require that an actor have knowledge that the other will in fact directly infringe. MCCARTHY, *supra* note 51, at 157.

80. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 483 (1964).

81. *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 648 (1915).

82. *Id.* "As the exclusive right conferred by the patent was property, and the infringement was a tortious taking of a part of that property, the normal measure of damages was the value of what was taken." *Id.*

83. Joint tortfeasors are jointly and severally liable for the consequences of their wrongful act. *See infra* notes 287–88 (defining and illustrating joint and several liability).

84. *Aro Mfg. Co.*, 377 U.S. at 507.

85. A license is a grant of permission to commit some act that would otherwise be unlawful. BLACK'S LAW DICTIONARY 938 (8th ed. 2004). In the context of patent law, a licensing agreement is a contractual agreement whereby the licensee is permitted to make, use, sell, offer to sell, or import into the United States the patented article or process. Without a license, a patentee's right to exclude would render an unlicensed user's conduct unlawful. *See* 35 U.S.C. § 271(a) (2002) (setting forth the elements of patent infringement).

86. The *purchaser's* use of the tops was infringing because their use of the tops was not

the infringement liability of an unlicensed manufacturer of fabric (a component of the patented invention) used to repair the tops.⁸⁷ The Court held that while the component manufacturer could not be liable for direct infringement, the purchasers' use of the component to repair the tops constituted direct infringement.⁸⁸ In concluding that the purchasers were directly infringing, the Court reasoned that "it has often and clearly been held that unauthorized use, without more, constitutes infringement."⁸⁹

Just six years later, in *Metal Film Co. v. Melton Corp.*,⁹⁰ a district court held a defendant liable for direct infringement when outside suppliers performed the *first* step of the patented process.⁹¹ The defendant arranged for suppliers to complete the first step and then performed the remaining steps itself.⁹² Notably, the fact that the defendant did not perform every element of the process itself was mentioned only in a footnote: "[t]hat defendants chose to have the [first

licensed and unauthorized. *Aro Mfg. Co.*, 377 U.S. at 484. "But with [the car manufacturers] lacking authority to make and sell, it could be by its sale of the cars confer on the purchasers no implied license to use, and their use of the patented structures was thus 'without authority' and infringing under s 271(a)." *Id.* On the other hand, it is fundamental that a *bona fide* sale of a patented article by the patentee or a licensee gives a purchaser an implied license to use the article, thereby rendering a user immune from infringement liability. *United States v. Univis Lens Co.*, 316 U.S. 241, 249 (1942).

87. *Aro Mfg. Co.*, 377 U.S. at 482. In determining whether defendant Aro committed contributory infringement by manufacturing and selling the infringing product, the court first had to determine whether the car owners committed direct infringement. *Id.* at 483. It is likely that in this case, like many other patent cases, the plaintiff sought damages from the "deep pockets" defendant manufacturer, rather than any individual user. *See id.* at 485-86 (discussing case law which established contributory infringement).

88. *Id.* at 483. However, had the car manufacturer been licensed, the purchaser's use of the component to repair the tops would *not* have been directly infringing, thus precluding the component manufacturer from liability for contributory infringement. *See id.* at 484 ("If the owner's use infringed, so also did his repair of the top-structure, as by replacing the worn-out fabric component. Where use infringes, repair does also, for it perpetuates the infringing use.").

89. *Id.* at 484. In determining whether the purchasers committed direct infringement, the court stated: "[w]e think it clear, under § 271(a) of the Patent Code and the entire body of case law on direct infringement which that section has left intact, that they did." *Id.* at 483.

90. *Metal Film Co. v. Melton Corp.*, 316 F. Supp. 96, 97 (S.D.N.Y. 1970). The patent at issue was a process of producing non-laminated metalized yarn, which can withstand the processing and use conditions to which they are subjected, while remaining soft enough to come into contact with human skin. *Id.* at 97.

91. *Id.* at 110. The defendants had outside suppliers perform the first step, by passing a relatively broad web of flexible, transparent thermoplastic material through a vacuum chamber to plate one surface thereof with a deposit of metal. *Id.*

92. *Id.* Next, the defendant himself would coat the metalized surface with a lacquer, or a transparent plastic material applied in liquid form. *Id.* The plastic material becomes a non-tacky film after it dries, and stretches without flaking off or breaking off when the yarn is subject to elongation in normal use. *Id.* Defendants would then slit the plastic-coated metalized web to a specific yarn width. *Id.*

step] . . . done by outside suppliers does not mitigate their infringement of the overall process.”⁹³ The court did not examine, however, whether the defendants had an agency relationship with the outside suppliers.⁹⁴ Thus, the court’s finding of liability implicitly served to expand the *Crowell* holding by permitting direct infringement liability even in the absence of an agency relationship.⁹⁵

In contrast, the *Mobil Oil Corp. v. W.R. Grace & Co.*⁹⁶ court held that a seller⁹⁷ was liable for direct infringement when third-party purchasers performed the *last* step of the patented process, as opposed to the first.⁹⁸ The patent claimed a step-by-step catalytic process to chemically change certain compounds, the last step of which was heating.⁹⁹ The seller performed all but the heating step, and sold the compounds to purchasers who heated the compound and completed the process.¹⁰⁰ Although the court agreed that the infringing process was performed by multiple entities, it found the seller liable for direct infringement because “it knew at the time it sold each of its [compounds]” that the heating step would be fully completed by its customers.”¹⁰¹ Reasoning that the “defendant, in effect, made each of

93. *See id.* at 110 n.12 (citing *Crowell* for the proposition that “one may infringe a patent if he employs an agent for that purpose”).

94. *Id.* at 110. The court provided little analysis on the relationship between the defendant and the outside suppliers, merely that the third party were “outside suppliers.” *Id.*

95. Gerdelman, *supra* note 31, at 2007.

Presumably the court viewed [the defendant]’s suppliers as agents—or a logical extension of that role—but its application of *Crowell* was an expansion of that holding. Not only was the patent . . . for a process rather than a product, but also it was unclear that the defendants had an agency relationship with the outside suppliers.

Id.

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

97. *Mobil Oil Corp.* and *Aro Mfg. Co.* were opposed with respect to which entity would be held liable for direct infringement. Compare *Mobil Oil Corp.*, 367 F. Supp. at 211, with *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 484 (1964). In *Mobil Oil Corp.*, a seller was liable for direct infringement when purchasers performed the last step of the patented process. However, in *Aro Mfg. Co.*, the purchasers were liable for direct infringement when the seller’s prior acts made the infringement possible.

98. *Mobil Oil Corp.* and *Metal Film Co.* were opposed with respect to the order of the infringing acts which would result in liability for direct infringement. Compare *Mobil Oil Corp.*, 367 F. Supp. at 211, with *Metal Film Co.*, 316 F. Supp. at 97. In *Mobil Oil Corp.*, a seller was liable for direct infringement when third parties performed the last step of the patented process. However, in *Metal Film Co.*, a seller was liable for direct infringement when a third party performed the *first* step of the patented process.

99. When the compound was heated, the chemical structure of the compound would change, thus completing the patented process of changing the chemical structure of the compound. *Mobil Oil Corp.*, 367 F. Supp. at 218–24.

100. *Id.*

101. *Id.* at 253.

its customers its agent in completing the infringement step,” the court, like its predecessors, adopted an expansive view of “agency” as applied to direct infringement.¹⁰²

As such, early case law consistently recognized that direct infringement of a process may exist even though all the steps are not performed by one party and no agency relationship exists. More specifically, courts accepted joint infringement as a viable legal theory.

E. The “Some Connection” Standard

After the creation of the Federal Circuit in 1982,¹⁰³ a series of decisions began to require “some connection” between entities that jointly infringe a patented method.¹⁰⁴ The problem of imposing liability in the case where the action of multiple entities combine to infringe a process was first expressed by the court in *E.I. Dupont de Nemours & Co. v. Monsanto Co.*¹⁰⁵ The court’s analysis distinguished between a party who sells a product on which it performed the initial steps of a process, and a completing party who uses the product to complete the remaining steps of the process.¹⁰⁶ The court held the completing party liable for direct infringement, while the selling party escaped liability.¹⁰⁷ The holding rested on two important considerations: (1) an actor cannot avoid liability by having another perform part of the process for it, and (2) relevant case law had never held the selling party liable for direct infringement.¹⁰⁸ Accordingly, a completing party could not avoid direct infringement liability “by paying [the selling party] to practice step (a) of the patented process”¹⁰⁹

The “some connection” language was first set forth in *Faroudja Laboratories, Inc. v. Dwin Electronics, Inc.*, where a district court

102. *Id.* Although the court described the purchaser as the defendant’s “agent,” it clearly was not referring to agency principles in their ordinary legal sense. In fact, the relationship between the defendant and the purchaser falls short of what is required to constitute an agency relationship. See *infra* note 241 (discussing general agency principles).

103. The Court of Appeals for the Federal Circuit was created by Congress to achieve uniformity of precedent in the field of patent law. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982) (codified as amended in scattered sections of Title 28 of the United States Code). The Federal Circuit was granted exclusive appellate jurisdiction regarding patent matters. ROBERT L. HARMON, HARMON ON PATENTS: BLACK-LETTER LAW AND COMMENTARY § 1.12 (BNA 2007).

104. Gerdelman, *supra* note 31, at 2007–08.

105. *E.I. Dupont de Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680 (D. Del. 1995).

106. Gerdelman, *supra* note 31, at 2007–08.

107. *E.I. Dupont de Nemours & Co.*, 903 F. Supp. at 733–35.

108. *Id.* at 735.

109. *Id.*

analyzed the direct infringement liability of multiple actors.¹¹⁰ In synthesizing previous cases that had assigned direct infringement liability to one discrete entity, the court concluded that “some connection” between the different entities whose combined action infringed the process had justified those findings.¹¹¹ Applying general tort principles, the court went on to state that the entities found liable for direct infringement “worked in concert” with others to complete the infringing process.¹¹²

Following *Faroudja*, the *Cordis Corp. v. Medtronic AVE Inc.* court’s infringement analysis applied the “some connection” requirement.¹¹³ The court specifically examined whether the entities whose combined action infringed a process had “some connection” to each other.¹¹⁴ This case involved a six-step process for producing and using stents. The seller performed the second step of the process, and physician users performed the remaining four steps.¹¹⁵ The court found the actors’ connection to be sufficient because the seller provided sample products to physicians, taught physicians to use the products, and recruited physicians to test the products.¹¹⁶ The court held that the “close relationship” between the parties supported finding that the physicians had directly infringed the process.¹¹⁷

The court in *Marley Mouldings Ltd. v. Mikron Industries, Inc.* also applied the “some connection” standard, and held that liability for direct infringement was appropriate when a party contracts out part of the process and then completes the process itself because “that party, through its connection with the entity performing only part of the

110. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 U.S. Dist. LEXIS 22987, at *15 (N.D. Cal. Feb. 24, 1999).

111. *Id.* The court stated: “[i]t is true that several district courts have found a party liable for direct infringement of a process patent even where the various steps included in the patent are performed by distinct entities. However, these cases indicate that some connection between the different entities justified that finding.” *Id.* The court incorporated the following two cases into its analysis of the applicable law: (1) *E.I. Dupont de Nemours & Co. v. Monsanto Co.*, *supra* notes 105–09 and accompanying text, and (2) *Metal Film Co. v. Melton Corp.*, *supra* notes 90–94 and accompanying text.

112. *Faroudja Labs., Inc.*, 1999 U.S. Dist. LEXIS 22987, at *17.

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

114. “To constitute a predicate act of direct infringement of a process claim, either a single entity must perform every step of the method or, if two or more entities perform different steps of the method, those entities must have some connection to each other.” *Id.*

115. *Id.* The second step of the claim required the actor to mount the stent onto a catheter. However, the seller sold premounted stents so, in practice, the physicians never performed the second step. *Id.*

116. *Id.* at 350.

117. *Id.*

process, is in actuality performing the combination of each and every step of the claimed method.”¹¹⁸ Although the court found that there was a material issue of fact as to whether the completing party had control over the seller’s activities, the “undisputed” connection between the two entities was sufficient to overcome summary judgment.¹¹⁹

Furthermore, although the *Pay Child Support Online Inc. v. ACS State & Local Solutions, Inc.* court did not use the “some connection” language, its infringement analysis illustrates the type of connection necessary for a plaintiff to gain a judgment of infringement as a matter of law.¹²⁰ In *Pay Child Support Online*, the patented process consisted of a method of processing payments whereby an employee with obligations to a third party could make payments through his employer.¹²¹ The court held the company providing the payment services liable for direct infringement, even though the employers both initiated the transfer of payment information and transferred the payment information.¹²²

In sum, cases decided following the Federal Circuit’s creation uniformly held that “some connection” between entities was required for a finding of direct infringement when multiple entities jointly infringed a patent.¹²³ Courts grappled over the degree of closeness required within “some connection.” Nevertheless, an undisputed connection was sufficient to impose liability as a matter of law.¹²⁴

118. *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *3 (N.D. Ill. Apr. 30, 2003). The court stated that “[a] party cannot avoid direct infringement merely by having another entity perform one or more of the required steps when that party is connected with the entity performing one or more of the required steps.” *Id.*

119. *Id.* Although the parties disputed the *degree* of the involvement between the two entities in performing the first two steps of the process, it was undisputed that the completing entity had purchased the “made to order” product from the seller. *Id.* at *1.

120. *Pay Child Support Online Inc. v. ACS State & Local Solutions, Inc.*, No. Civ. 02-1231, 2004 WL 741465, at *9 (D. Minn. Apr. 5, 2004).

121. *Id.* at *1. Thus, the invention relates to a method for processing payments and payment information using debit-based electronic funds transfers. The patented claims contemplate actions of separate entities: an employee, an employer, an accumulator agency, and in most cases a bank or the state. *See* U.S. Patent Nos. 5,946,669 (filed Sept. 30, 1997) and 6,119,107 (filed Jan. 7, 1998) (depicting patent claims which contemplate the actions of multiple entities).

122. Transferring payment information and instituting the payment was contemplated by the first element of the patented claim. U.S. Patent Nos. 5,946,669 (filed Sept. 30, 1997) and 6,119,107 (filed Jan. 7, 1998). Thus, the defendant company had to use this information in order to process the payments. Brief of Plaintiff-Appellant at 38, *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373 (Fed. Cir. Sept. 29, 2006) (No. 2006-1503) [hereinafter Brief of Plaintiff-Appellant].

123. *See* Gerdelman, *supra* note 31, at 2011 (discussing the “some connection” standard).

124. For example, in *Marley Mouldings* the court suggested that it would require further information about the extent of connection between the parties, but that an undisputed connection was sufficient to overcome summary judgment as a matter of law. *Marley Mouldings Ltd. v.*

F. The “Participation and Combined Action” Standard

Although many district courts found that a party may be liable for direct infringement when the various steps in a patented process are performed by distinct entities,¹²⁵ until 2006 neither the Supreme Court nor the Federal Circuit had addressed the issue.¹²⁶ The Federal Circuit¹²⁷ first spoke to this issue in *On Demand Machine Corp. v. Ingram Industries*.

In *On Demand*, the patent claimed a method of manufacturing a single book copy, with the claims contemplating a direct consumer role in selecting the book to purchase and print.¹²⁸ The patent owner sued two defendants under a joint infringement theory; the first defendant printed and sold books ordered by publishers,¹²⁹ and the second defendant received orders from consumers and could order single copies from the first defendant.¹³⁰ The jury found that both defendants infringed upon the patent holder’s invention.¹³¹ On appeal, the Federal Circuit reviewed the challenged jury instructions *de novo*.¹³² The district court had instructed the jury as to joint infringement as follows:

Mikron Indus., Inc., No. 02 C 2855, 2003 WL 1989640, at *3 (N.D. Ill. Apr. 30, 2003). Similarly, in *Cordis Corp.* the court found that the “close connection” was sufficient to impose liability for direct infringement as a matter of law. *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 349 (D. Del. 2002).

125. *Id.*; *supra* Part II.E (illustrating a variety of cases which had imposed direct liability on a party who did not himself perform every step of the patented method).

126. *Marley Mouldings*, 2003 WL 1989640, at *2.

127. When the Federal Circuit was created in 1982, it was granted exclusive jurisdiction over patent appeals. *See supra* note 103.

128. *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1334 (Fed. Cir. 2006). The patent at issue claimed a method where a retail seller of books provides a computer console for customer use, wherein the computer stores promotional and other information such as book reviews and price, and also stores the complete text of the book and the design of the cover. *Id.* The customer can browse through the stored information, inspect the text, and select a book for purchase; the book is then printed and bound, *preferably* at the same site. *Id.*

129. Defendant “Lightning Source prints and sells books as ordered by publishers, wholesalers, and retailers such as Amazon.com, but does not sell directly to the public.” *Id.*

130. “Defendant Amazon.com is a seller of books and other products to the public on the internet: its internet website provides promotional and sales information on individual books, and receives orders from customers.” *Id.* at 1335. The plaintiff argued that when a customer orders from the retailer upon reviewing the retailer’s promotional information, and the retailer in turn orders that single book to be printed by the printer, the defendants together infringe the patent. *Id.* at 1344.

131. *Id.* at 1336.

132. *De novo* is a standard of judicial review which is nondeferential to the lower court. BLACK’S LAW DICTIONARY 864 (8th ed. 2004). A jury instruction based on incorrect law, such as an erroneous claim construction that may have affected the verdict, receives *de novo* review. *Ecolab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1373 (Fed. Cir. 2002). An erroneous jury instruction may warrant a new trial, or the court may consider whether, on the correct instruction, the jury could have reached only one verdict. *On Demand*, 442 F.3d at 1337.

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.¹³³

After considering the instructions, the panel resolved the issue by stating that it “discern[ed] no flaw in this instruction as a statement of law.”¹³⁴ Although affirming joint infringement in principle, the panel nevertheless found other grounds upon which to reverse the finding of infringement.¹³⁵ Even in its reversal, by considering the conduct of multiple discrete actors in determining whether joint infringement existed, the panel’s analysis further affirmed joint infringement as a viable legal theory.¹³⁶

III. DISCUSSION

In 2007, the Federal Circuit was once again asked to settle the question of whether the action of multiple entities could be combined to find joint infringement of a process patent in *BMC Resources, Inc. v. Paymentech, L.P.*¹³⁷ This Part begins by providing an overview of the facts of the case.¹³⁸ Next, it discusses the recommendation of the magistrate, including the magistrate’s analysis of joint infringement

133. *On Demand*, 442 F.3d at 1344–45.

134. *Id.* at 1345.

135. The court reversed the finding of infringement on two grounds: (1) the separate actions of each actor were in the prior art, and (2) the combined actions of the defendants failed to meet the “all elements rule” because they lacked the direct consumer role that was contemplated by the patented invention. *Id.* at 1345. “Prior art” consists of that which is known, used, patented, or described by the patent applicant or others before conception and reduction to practice of the patented invention. 35 U.S.C. § 102 (2006). Because novelty is a requirement of patentability, prior art is relevant for determining whether an invention is even patentable subject matter, as well as whether an issued patent is valid when challenged in litigation. *Id.* Once an invention runs afoul of the novelty requirement, the inventor is deprived of all rights. See DREYFUSS & KWALL, *supra* note 29, at 636 (discussing 35 U.S.C. § 102’s novelty requirement).

136. See *On Demand*, 442 F.3d at 1345. The court recognized that the patent contemplated the action of multiple actors, and analyzed the actions of each discrete actor in reaching its determination of noninfringement. *Id.* at 1344–45. By basing the finding of noninfringement on the actors’ failure to practice every element of the claimed invention, the Federal Circuit implied that a finding of direct infringement could be appropriate had the combined actions practiced every element of the claimed invention. *Id.*

137. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373 (Fed. Cir. 2007).

138. See *infra* Part III.A (setting forth the facts of the *BMC* case).

liability.¹³⁹ Then it details the district court's holding to affirm the magistrate's findings and the reasoning underlying this decision.¹⁴⁰ Finally, this Part analyzes the Federal Circuit's holding, which requires that one entity must "direct or control" the other entities whose actions combine to infringe a patented process before direct infringement liability may be imposed.¹⁴¹

A. *The Facts*

BMC Resources, Inc. (BMC) is the assignee¹⁴² of two patents which claim a method of processing debit bill payment transactions without a personal identification number (PIN).¹⁴³ The patented invention (the Telepay system)¹⁴⁴ provides an interface between a touch-tone telephone and a debit card network, facilitating real-time bill payment transactions with a telephone keypad.¹⁴⁵ The invention includes an interactive voice response unit (IVR) that prompts a caller to enter an access number, debit card number, and payment amount.¹⁴⁶ The information is passed to a debit network, and then on to a financial institution.¹⁴⁷ The patent contemplates the actions of multiple entities, each of which participates in approving and carrying out the transaction process.¹⁴⁸

Paymentech, L.P. (Paymentech) processes payment transactions for clients and offers PIN-less debit bill payment services.¹⁴⁹ Paymentech's processing operates in the following sequence: (1) the

139. See *infra* Part III.B (discussing the Findings and Recommendation of the United States Magistrate Judge).

140. See *infra* Part III.C (discussing the decision of the United States District Court for the Northern District of Texas).

141. See *infra* Part III.D (discussing the Federal Circuit decision).

142. An assignee is one to whom property rights or ownership are transferred by another. BLACK'S LAW DICTIONARY 127 (8th ed. 2004).

143. BMC Res., Inc. v. Paymentech, L.P., No. 3-03-CV-1927-M, 2006 WL 306289, at *1 (N.D. Tex. Feb. 9, 2006); U.S. Patent Nos. 5,715,298 (filed Jan. 22, 1997) (entitled "Automated Interactive Bill Payment System Using Debit Cards"), and 5,870,456 (filed Oct. 7, 1997) (also entitled "Automated Interactive Bill Payment System Using Debit Cards").

144. BMC was formerly known as Telepay. *BMC Res.*, 2006 WL 306289, at *1 n.1.

145. *Id.* at *1. Using the invention, the caller may initiate a bill payment transaction, obtain information regarding authorization of the transaction, and inquire about previously processed transactions. *Id.*

146. *Id.*

147. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1375 (Fed. Cir. 2007).

148. Approving and carrying out the transaction includes determining whether the account number is valid, whether the debit number is valid, and whether sufficient funds or credit are available to facilitate the transaction. *Id.*; U.S. Patent Nos. 5,715,298 (filed Jan. 22, 1997), 5,870,456 (filed Oct. 7, 1997).

149. *BMC Res.*, 2006 WL 306289, at *1.

customer calls the merchant to pay a bill; (2) the merchant prompts the customer for payment information and sends the collected information to Paymentech; (3) Paymentech routes the information to a participating debit network; (4) the debit network forwards the information to an affiliated financial institution; (5) the financial institution authorizes or declines the transaction amount and, if authorized, charges the customer's account according to the payment information; and (6) information of the status of the transaction travels back from the financial institution to the debit network and then, through Paymentech, to the merchant who informs the customer of the status of the transaction.¹⁵⁰ The different parts of the process are performed by retail merchants, debit networks, and participating financial institutions.¹⁵¹

Upon learning that Paymentech was offering PIN-less debit bill payment services, BMC demanded that it enter into a licensing agreement to use the Telepay system.¹⁵² When it refused, BMC alleged direct infringement and inducement of both patents in district court.¹⁵³ BMC's theory of liability was joint infringement: while Paymentech did not itself perform all of the steps of the patented process, it participated, coordinated, and worked in concert with third parties to perform all of the steps.¹⁵⁴ In response, Paymentech denied liability due to the lack of

150. *Id.*

151. *Id.* at *5. The retail merchants collect payment information and send it to Paymentech; the debit networks forward information obtained from Paymentech to affiliated financial institutions; and the financial institutions authorize or decline the proffered transaction, charge the customer's account, and send information about the transaction status back to the debit network. *Id.* From there, the debit networks transfer information regarding the transaction status back to Paymentech. *Id.* Finally, the retail merchants use information about the transaction status obtained from Paymentech to inform the customer. *Id.*

152. Demanding a party enter into a licensing agreement likely gives that party notice of the patentee's rights, as demanding a licensing agreement necessarily implies the existence of a patent. This is particularly important because providing notice of patent rights is a condition precedent to a patentee's ability to obtain money damages in litigation. 35 U.S.C. § 287 (2006). The patent law thus places an affirmative duty on a patentee interested in obtaining money damages to provide notice of its patent rights. LAWRENCE M. SUNG, PATENT INFRINGEMENT REMEDIES 142-44 (2004).

153. *BMC Res.*, 2006 WL 306289, at *5 n.4. BMC alleged infringement of claim 2 of the '298 patent, which is made up of 13 elemental steps, and claim 7 of the '456 patent, which is made up of seven elemental steps. Both claims incorporate the PIN-less debit bill payment method. Because all seven of the steps in claim 7 of the '456 patent are included in the thirteen steps of claim 2 of the '296 patent, the court's infringement analysis of the '296 patent included both patents.

Paymentech preemptively filed suit seeking a declaration of non-infringement of the BMC patents. The parties were then realigned, and BMC alleged infringement and inducement. Paymentech filed a counterclaim seeking a declaration of non-infringement, as well as invalidity of the '298 patent. *Id.* at *1.

154. *Id.* at *2. Specifically, BMC alleged that Paymentech participated in and coordinated the performance of the infringing transactions among itself, its retail merchant customers, various

evidence that it performed every step of the patented method either by itself or “in connection”¹⁵⁵ with any other entity or entities.¹⁵⁶

B. The Recommendation of the Magistrate Judge

The case appeared before a magistrate judge on motions for summary judgment by both BMC and Paymentech based on joint infringement.¹⁵⁷ In analyzing joint infringement, the magistrate recognized that “courts have suggested that a party may directly infringe a process patent where various steps of the patent are performed by distinct entities.”¹⁵⁸ In an attempt to condense the body of joint infringement law, the magistrate concluded that in cases where distinct entities were liable for direct infringement, courts “appear to require a close relationship or connection between the accused infringer and the other entity such that the party accused of infringement directs or controls the actions of the other party.”¹⁵⁹ The magistrate subsequently proceeded with his infringement analysis based upon his abbreviated “direction or control” standard.¹⁶⁰

First, the magistrate analyzed Paymentech’s relationship with its merchant customers to determine if it directed or controlled the merchants in performing the “prompting” and “informing” steps.¹⁶¹ The “prompting” step occurred when the IVR prompted callers to enter their account numbers, debit card numbers, and payment amounts.¹⁶² The “informing” step occurred when the IVR informed customers as to whether their payment transactions were authorized or declined.¹⁶³ The magistrate found that Paymentech satisfied the “direction or control”

debit networks, and participating financial institutions. *Id.*

155. *Cf.* Part II.E. (discussing the “some connection” standard of joint infringement).

156. *See BMC Res.*, 2006 WL 306289, at *2 (referencing the Defendant’s Motion for Summary Judgment Brief at 7–13).

157. *Id.* at *5. Both parties also filed motions for summary judgment with respect to the issue of validity. However, for purposes of this Note, the issue of patent validity will not be discussed.

158. *Id.* at *4 (citing *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *2 (N.D. Ill. Apr. 30, 2003)). For a discussion of *Marley Mouldings*, *see supra* note 118 and accompanying text (illustrating the *Marley Mouldings* court’s application of the “some connection” standard).

159. *Id.* The court illustrated its observation on the state of the law by illustrating *Cordis Corp.*, *Marley Mouldings*, and *Mobil Oil Corp. v. Filtrrol Corp.*

160. The magistrate’s imposition of the “direction or control” standard is illustrated by reasoning as to whether “the evidence . . . is sufficient to create a genuine issue of material fact as to whether Paymentech directs or controls the . . . steps performed by its retail merchants.” *Id.* at *5.

161. *BMC Res.*, 2006 WL 306289, at *5.

162. *Id.*

163. *Id.*

standard¹⁶⁴ because it (1) worked closely with the merchants to develop the IVR scripts used in the prompting and informing steps, reviewed merchant-drafted scripts, provided feedback, and recommended changes; (2) communicated with debit networks on behalf of the merchants; and (3) provided merchants with guidance and assistance in processing the transactions.¹⁶⁵

Next, the magistrate analyzed Paymentech's relationship with the debit networks and financial institutions.¹⁶⁶ The magistrate found that the evidence was insufficient to show that Paymentech directed or controlled the "determining," "charging," and "adding" steps performed by the debit networks and financial institutions.¹⁶⁷ BMC pointed to the contractual relationships between Paymentech and its debit networks¹⁶⁸ to show that it "works in concert"¹⁶⁹ or "works jointly together" with them.¹⁷⁰ Notwithstanding, the magistrate found the evidence insufficient, reasoning that "no court has ever found direct infringement based on the type of arms-length business transaction present here."¹⁷¹ Rather, "cases appear to require an agency relationship or evidence that

164. The court stated that the evidence was indeed "sufficient to create a genuine issue of material fact as to whether Paymentech directs or controls the 'prompting' and 'informing' steps performed by its retail merchants." Thus, summary judgment of noninfringement was inappropriate. *Id.*

165. *Id.*

166. Remote payment networks performed three of the seven steps: determining whether sufficient funds exist in the account, charging the payment amount against the account, and adding the payment amount to the merchant's account. *Id.*

167. "The inference BMC asks the court to draw from this evidence does not establish 'beyond peradventure' that Paymentech directs or controls the alleged infringing activities of these other entities." *Id.* at *6.

168. The court noted that Paymentech had contracts with named debit networks such as Star, NYCE, and Pulse. *Id.* at *5.

169. Under traditional tort theory, persons are liable for the harm resulting to a third person for acting in concert when he does a tortious act with another pursuant to a common design with him, knows that the other's conduct constitutes a breach of a duty and gives substantial assistance or encouragement to the other so to conduct himself, or gives substantial assistance to the other in accomplishing a tortious result and his own conduct, separately considered, constitutes a breach of duty to the third person. RESTATEMENT (SECOND) OF TORTS § 876 (1979).

170. *BMC Res.*, 2006 WL 306289, at *5. The contracts referenced were not offered into evidence. Rather, BMC alleged that the mere existence of the contracts was sufficient evidence of joint action between Paymentech and the debit networks. *Id.*

171. *Id.* at *7. For the proposition that no court has ever found direct infringement based on arms-length business transactions present in this situation, the court cited an American Intellectual Property Law Association article about litigation strategies for divided infringement claims. While this Article takes the position that establishing an agency relationship would impart the greatest likelihood of success for a patent owner in litigation of divided infringement claims, it does not state that it was necessary for success. See Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 281 (discussing litigation strategies for divided infringement claims).

the accused infringer directs or controls the infringing activities of the other parties.”¹⁷²

The magistrate concluded that Paymentech did not perform the determining, charging, and adding steps, either by itself or in connection with the debit networks and financial institutions.”¹⁷³ Accordingly, it found infringement did not exist and recommended that the court grant summary judgment in favor of Paymentech.¹⁷⁴

C. The District Court Decision

In deciding the motions for summary judgment, the district court considered the magistrate’s recommendation and the binding *On Demand* decision, which was issued in the interim between the magistrate’s recommendation and the district court’s review.¹⁷⁵ Unlike the magistrate, the district court accepted that liability may be shown when an entity is “connected” to the other entities performing steps of a patented process.¹⁷⁶ The court recognized the inconsistencies among district courts regarding the connection required to show direct infringement, but declined to import a specific standard for the connection required to prevail in joint infringement cases.¹⁷⁷ On one hand, sufficient connections had been found with just “some connection,”¹⁷⁸ while others held that a sufficient connection depends

172. *BMC Res.*, 2006 WL 306289, at *6. In presenting this proposition, the court pointed to *Marley Mouldings*, see *supra* note 118 and accompanying text (discussing the *Marley Mouldings* holding), *Cordis Corp.*, see *supra* note 114 and accompanying text (discussing the *Cordis Corp.* holding). The court also pointed to evidence of the contractual relationships which itself weighted against a finding of direction or control. The debit networks followed their own rules and regulations for processing the allegedly infringing transactions. *Id.* In fact, Paymentech could be fined if a merchant failed to comply with the regulations of the debit network. *Id.*

173. *Id.*

174. *Id.*

175. *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331 (Fed. Cir. 2006). For a discussion and analysis of *On Demand*, see *supra* Part II.F (discussing the Federal Circuit’s statement that it found “no flaw” in a jury instruction on joint infringement that stated “[w]hen infringement results from the participation and combined actions of more than one person or entity, they are all joint infringers”). Both parties filed supplemental briefs to address the *On Demand* decision. *BMC Res., Inc. v. Paymentech, L.P. (BMC I)*, No. 03-CV-1927-M, 2006 WL 1450480, at *2 (N.D. Tex. May 24, 2006).

176. *BMC I*, 2006 WL 1450480, at *3 (citing *Marley Mouldings*). The district court also noted the recent *On Demand* case, stating “[i]n a recent case, without analysis, the Federal Circuit generally approved a jury instruction based on joint infringement of a process patent.” *Id.*

177. In synthesizing the relevant case law, the court not only interpreted the express statements of district courts, but also the inferences permitted by the holdings. For example, the court noted that in *Faroudja*, “the court stated that ‘some connection’ must exist between the entities, but also suggested that the entities must work ‘in concert.’” *Id.*

178. *Applied Interact, LLC v. Vermont Teddy Bear Co.*, No. 04 Civ. 8713, 2005 U.S. Dist. LEXIS 19070, at *16 (S.D.N.Y. Sept. 6, 2005) (emphasis added). In this case, the court refused

on a showing of agency, a contractual relationship, direction, or working in concert.¹⁷⁹

In a lengthy footnote, the district court dismissed the relevance of *On Demand*.¹⁸⁰ The court refused to accept the panel's statement that they found "no flaw" in the jury instruction on joint infringement¹⁸¹ as an adoption of that instruction as a matter of law.¹⁸² Rather, because the *On Demand* court found non-infringement on other grounds, the court reasoned that the "no flaw" language was mere dicta¹⁸³ and unworthy of judicial recognition.¹⁸⁴

BMC contested the magistrate's finding that there was insufficient evidence that Paymentech directed or controlled the debit networks and financial institutions.¹⁸⁵ The district court separately analyzed Paymentech's relationships with the debit networks and financial institutions.¹⁸⁶ First, although Paymentech routed transactions to debit networks and provided them with data necessary to complete the transactions,¹⁸⁷ the district court found that providing data without

to find noninfringement as a matter of law because the steps of the claim were performed by connected entities. *Id.* at *27.

179. *Hill v. Amazon.com, Inc.*, No. 2:02-CV-186, 2006 U.S. Dist. LEXIS 3389, at *17-18 (E.D. Tex. Jan. 19, 2006) (suggesting that agency, a contractual relationship, direction, or working in concert are sufficient to prove the required "connection" justifying the imposition of liability for direct infringement).

180. *BMC I*, 2006 WL 1450480, at *3 n.3.

181. The *On Demand* jury instruction regarding joint infringement, which the panel determined to contain "no flaw" as a matter of law, stated 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.

On Demand, 442 F.3d at 1344-45.

182. *Id.*

183. Dicta is afforded no precedential weight. See *Allied Bruce Terminix Cos., Inc. v. Dobson*, 513 U.S. 265, 296 (1996) ("We accord no precedential weight to mere dicta.").

184. "Because the district court's definition of 'connection' was not relied on in the panel's conclusion, the court refuses to read the panel's dictum that it found 'no flaw' as a wholesale adoption of the district court's jury instruction." *BMC I*, 2006 WL 1450480, at *3 n.3. Further, the court reasoned that the panel in *On Demand* did not even reach the question of what kind of connection was necessary between entities to sustain a jury verdict of joint infringement. *Id.*

185. *Id.* at *4.

186. The court noted that "[a]t this juncture, the Court need not consider whether BMC must show that the financial institutions were directed or controlled by Paymentech, or whether it would be sufficient to show that the financial institutions were directed or controlled by an entity directed or controlled by Paymentech." *Id.* at *6 n.10.

187. BMC alleged that Paymentech directed the debit networks in completing the patented

instruction as to how to use the data is insufficient to show direction.¹⁸⁸ Second, although Paymentech provided data to financial institutions, including specific indicators and bank identification numbers, the court held that this evidence failed to create an issue of fact as to whether it directs or controls the financial institutions.¹⁸⁹

Alternatively, the court stated that even if the “some connection” standard applied, the evidence was still insufficient to establish a connection with the financial institutions.¹⁹⁰ The court refused to assume without evidence that the financial institutions were “working together, jointly or in concert, to perform the charging step,” which occurred when Paymentech provided information from the debit networks to the financial institutions, who used that information to charge the account.¹⁹¹ The court also faulted the lack of either a contractual or business relationship between BMC and the financial institutions, further highlighting their tenuous connection.¹⁹²

BMC also objected to the magistrate’s imposition of a “direction or control” standard, arguing that it is improper and underinclusive, and that the proper legal standard is “some connection” between entities whose combined actions infringe a patent.¹⁹³ BMC argued the relevant

process by virtue of its routing and transmission of necessary data. In routing, Paymentech would “reformat” the transaction instructions to communicate with the debit networks specifically. Paymentech transmitted the account holder’s name, the debit card number, the amount of purchase, and the bill being paid to the debit networks. BMC did not argue that such transmissions necessarily controlled the debit networks; rather, it argues that such transmissions direct the debit networks. *Id.* at *5.

188. The Court interpreted *Vermont Teddy Bear’s* finding that “if the other entities were to perform steps of the process patent they must do so according to the instructions provided on the purported infringer’s website.” *Id.* (citing *Applied Interact, LLC v. Vermont Teddy Bear Co.*, No. 04 Civ. 8713, 2005 U.S. Dist. LEXIS 19070, at *16–17 (S.D.N.Y. Sept. 6, 2005)) (internal quotations omitted).

189. *Id.* at *6.

190. *But see id.* at *6 n.10 (stating that the court believed that it need not determine whether BMC was required to show that Paymentech directed or controlled the financial institutions, or whether it would be sufficient for BMC to show that Paymentech directed or controlled the debit networks, who in turn controlled the financial institutions).

191. “Without evidence, the Court cannot assume that whenever Paymentech provides information to the financial institutions through the debit networks, the financial institutions, in response to such information, are acting in concert to charge the accounts.” *Id.* For a discussion of “working in concert” see *supra* note 170.

192. *Vermont Teddy Bear*, 2005 U.S. Dist. LEXIS 19070, at *6 n.10.

193. BMC claims that it should not have to show that Paymentech “directs and controls” the debit networks/financial institutions; rather, it should only have to show that Paymentech had “some connection” with the debit networks. *BMC I*, 2006 WL 1450480, at *4. BMC argued that the “direction or control” standard was particularly inappropriate in two circumstances: (1) where a patent clearly contemplates that the method will be performed by multiple actors and the relationship between these entities is the one described in the patent, and (2) it is unlikely, in light of the realities of the business situation, that any one person or company would itself physically

case law dictated that “some connection” was sufficient to impose liability when the entities: (1) engaged in the same relationship described in the patent,¹⁹⁴ (2) worked jointly or in concert to perform the patented steps,¹⁹⁵ (3) had a contractual relationship,¹⁹⁶ or (4) interacted during the ordinary course of a commercial business relationship.¹⁹⁷ Nevertheless, the court agreed with the magistrate and held that liability for direct infringement requires that a plaintiff prove that the alleged infringer directs or controls the other entities whose combined actions infringe the patented process.¹⁹⁸

D. The Decision of the Federal Circuit

The case came to Federal Circuit by way of BMC’s appeal of the district court’s decision granting summary judgment in favor of Paymentech.¹⁹⁹ At issue was the proper standard for joint infringement when the actions of multiple parties combine to practice all of the steps of a patented process.²⁰⁰ As it was conceded that other entities performed some of the steps, the court set out to determine if Paymentech “may nonetheless be liable for direct infringement.”²⁰¹

Circuit Judge Rader began his analysis by stating:

These rules for vicarious liability might seem to provide a loophole for a party to escape infringement by having a third party carry out one or more of the claimed steps on its behalf. To the contrary, the law imposes vicarious liability on a party for the acts of another in

perform all of the steps of the claim. *Id.*

194. See *Pay Child Support Online Inc. v. ACS State & Local Solutions, Inc.*, No. Civ. 02-1231, 2004 WL 741465 (D. Minn. Apr. 5, 2004) (illustrating how the actions of multiple entities were contemplated in the patent, and the actions of the defendants were exactly as contemplated in the patent).

195. See *supra* note 98 and accompanying text (illustrating how the imposition of liability had been found when entities worked in concert with others to infringe a patent).

196. See *supra* note 118 and accompanying text (discussing the *Marley Mouldings* holding that liability is appropriate when a party contracts out part of the process, and then itself completes the process).

197. *BMC I*, 2006 WL 1450480, at *6.

198. “Having reviewed the Findings and the authorities cited by Plaintiff, the Court agrees with Judge Kaplan and finds that Plaintiff must prove that the party accused of infringement directs or controls the actions of the other entity or entities performing the steps of the process patent.” *Id.* Judge Kaplan was the magistrate judge who rendered the recommendation discussed *supra* Part III.B (holding that direction and control must be established in order to impose liability for direct infringement).

199. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1375 (Fed. Cir. 2007).

200. Leonard Conapinski, *United States: The Federal Circuit Rejects “Joint Infringement” of a Patent*, Oct. 31, 2007, available at <http://vlex.com/vid/circuit-rejects-joint-infringement-patent-31105733>.

201. An actor is liable for direct patent infringement if, without authority, he makes, uses, offers to sell, sells, or imports any patented invention into the United States. See *supra* note 49.

circumstances showing that the liable party controlled the conduct of the acting party.²⁰²

Bringing its statement of the law full circle, the court stated “[i]n the context of patent infringement, a defendant cannot thus avoid liability for direct infringement by having someone else carry out one or more of the claimed steps on its behalf.”²⁰³

BMC’s argument on appeal was that the “direction or control” standard imposed by the district court constituted legal error, as contrary to the Federal Circuit’s standard set forth in *On Demand*.²⁰⁴ Accordingly, the court examined the jury instruction on joint infringement that the *On Demand* panel found to have “no flaw as a statement of law.”²⁰⁵ While the court determined that *On Demand* indeed set forth a different standard regarding the requisite connection between entities for joint infringement, it did not credit the change because the *On Demand* panel “did so without any analysis of the issues presented relating to divided infringement.”²⁰⁶ As such, Judge Rader held that BMC’s interpretation of *On Demand* was beyond settled law.²⁰⁷

Dismissing *On Demand*, the court conducted an analysis of the proper standard for divided infringement liability.²⁰⁸ It began by

202. *BMC II*, 498 F.3d at 1379. Regarding vicarious liability, the court cited the unpublished decision *Engle v. Dinehart*, 213 F.3d 639 (5th Cir. 2000), which in turn relied upon the RESTATEMENT (SECOND) OF AGENCY § 220 (1958).

203. In coming to this legal conclusion, the court relied on *Cross Med. Prods. v. Medtronic Sofamor Danek*, 424 F.3d 1293 (Fed. Cir. 2005). Here, the *Cross* court refused to attribute the acts of surgeons to the medical device manufacturer, when the manufacturer’s representative appeared in the operating room and identified the instruments for the surgeons, but did not direct the surgeon’s actions. The *Cross* case was remanded for further consideration as to whether the surgeons directly infringed by making the claimed apparatus and whether the medical device manufacturer could be held vicariously liable for such infringing acts. *Id.* at 1312.

204. *BMC II*, 498 F.3d at 1379; *see also* Brief of Plaintiff-Appellant, *supra* note 122 (arguing that a “direction or control” standard was contrary to the *On Demand* standard requiring “participation and combined action”).

205. *See supra* text accompanying note 133 (setting forth the jury instruction discussed in *On Demand*).

206. *BMC II*, 498 F.3d. at 1379–80. The Federal Circuit reasoned that the “district court properly analyzed the law and this court’s cases.” *Id.* at 1380. The court also adopted the district court’s analysis, reasoning that it was unlikely that the *On Demand* panel intended to make a major change in jurisprudence in a statement that was not directly necessary to the case’s ultimate holding. “Instead, *On Demand* primarily addressed the claim construction issue that governed the outcome of the case.” *Id.* at 1380.

207. *Id.* The court found BMC’s “participation and combined action” standard to be beyond settled law because “*On Demand* did not change this court’s precedent with regard to joint infringement.” *Id.*

208. “Divided infringement liability” is a phrase used interchangeably with “joint infringement liability,” meaning that the allegedly infringing conduct is divided between multiple

pointing to two cases which found that a party could not be liable for direct infringement if it did not perform all the steps of the patented process.²⁰⁹ Citing only the district court, the Federal Circuit then summarized that “[c]ourts faced with a divided infringement theory generally refused to find liability where one party did not control or direct each step of the patented process.”²¹⁰ As an exception to this rule, the court recognized that “[a] party cannot avoid infringement, however, simply by contracting out steps of a patented process to another entity. In those cases, the party in control would be liable for direct infringement. It would be unfair indeed for the mastermind in such situations to escape liability.”²¹¹

Notably, the court expressed concern that the “direction or control” standard for joint infringement “may in some circumstances allow parties to enter into arms-length agreements to avoid infringement.”²¹² Nevertheless, the Federal Circuit held that the concern over parties circumventing liability did not trump concerns over expanding the rules governing joint infringement.²¹³ This holding was based upon the court’s determination that expanding liability for direct infringement to reach “independent conduct of multiple actors would subvert the statutory scheme” for direct and indirect infringement.²¹⁴

entities.

209. The court pointed to *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1568 (Fed. Cir. 1983) (finding no direct infringement by manufacturer who performed the first step of a process claim even where its customer performed the other step of the claim), and *Cross Med. Prods.*, 424 F.3d at 1311 (rejecting patentee’s efforts to combine the acts of surgeons with those of a medical device manufacturer to find direct infringement of an apparatus claim). *BMC II*, 498 F.3d at 1380.

210. *Id.* In stating this proposition, the court also cited *Mobil Oil Corp. v. Filtrrol Corp.* (*Mobil Oil Corp. Consolidated Cases*), 501 F.2d 282 (9th Cir. 1974), reasoning that it “expressed doubt” over the possibility of divided infringement liability. *Mobil Oil Corp. Consolidated Cases* was an appellate decision of consolidated cases, one of such consolidated cases being *Mobil Oil Corp. v. W.R. Grace & Co. (Mobil Oil Corp.)*, 637 F. Supp. 207 (D. Conn. 1973). *Mobil Oil Corp. Consolidated Cases* found that the patents were not infringed based on claim construction, and not based on the issue of joint infringement. The relevant issue of joint infringement was discussed in the *Mobil Oil Corp.* decision. For a discussion of *Mobil Oil Corp.*, see *supra* text accompanying note 98 (discussing how *Mobil Oil Corp.* imposed liability on a company for direct infringement when its customers performed the last step of the patented process).

211. *BMC II*, 498 F.3d at 1381 (citing *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980)).

212. *Id.*

213. *Id.* The Federal Circuit feared that permitting the imposition of joint infringement liability on an entity who failed to “direct or control” the other entities whose combined actions infringed the process would create overbroad liability for direct infringement, rendering the statutory enactments for indirect liability necessarily meaningless. *Id.*

214. *Id.*

The court derived its conclusion of resulting statutory subversion by comparing the direct and indirect infringement statutes, and the requirements for liability as to each.²¹⁵ The court concluded that the purpose of the “specific intent”²¹⁶ requirement for indirect liability was to limit the dangers of expanding direct infringement liability.²¹⁷ Direct infringement, unlike indirect infringement, is a strict liability offense which is not limited by the infringer’s mental state.²¹⁸ Applying the purported purpose of the “specific intent” requirement in the indirect infringement statutes to direct infringement, the court reasoned that direct infringement liability should also be limited by the “specific intent” requirement where an infringer does not perform all of the steps himself.²¹⁹ Under the court’s analysis, expanding direct infringement liability to hold “independent actors” strictly liable without a “specific intent” limitation would: (1) oppose legislative intent to limit direct infringement, and (2) render the indirect infringement statutes meaningless because a plaintiff could instead rely on direct infringement for a remedy.²²⁰

215. Recall that causes of action for indirect infringement—that is, contributory infringement and inducement—are only available to a plaintiff if there is a preliminary finding of direct infringement. 35 U.S.C. §§ 271(b), (c) (2006); *supra* notes 78–79 and accompanying text (discussing indirect infringement). Liability for direct infringement does not require any showing of a mental state on the part of the alleged infringer, while liability for indirect infringement requires a showing of some mental state on the part of the alleged indirect infringer. Compare 35 U.S.C. § 271(a) (defining direct infringement), with 35 U.S.C. §§ 271(b), (c) (defining indirect infringement).

216. “Specific intent” is a term of art generally used in criminal law, defined as “the intent to accomplish the precise criminal act that one is later charged with.” BLACK’S LAW DICTIONARY 826 (8th ed. 2004). Unlike strict liability offenses, specific intent offenses require some minimum proof as to the mental state of the actor. *Id.* Thus, indirect infringement is not a strict liability offense because it requires some minimum proof as to the mental state of the alleged indirect infringer.

217. The court illustrated how the dangers of overbroad liability may be limited by a statutory requirement of specific intent. *BMC II*, 498 F.3d at 1381. The court pointed to the statutory language of indirect infringement causes of action (which by definition anticipate the action of multiple entities), to show that the legislature felt such causes of action necessitated a specific mental state on the part of the accused actor. *Id.*

218. Strict liability offenses impose liability without a requirement as to the mental state of the actor. A strict liability offense is an offense for which the action alone is enough to warrant imposing liability, with no need to prove a mental state. BLACK’S LAW DICTIONARY 1111 (8th ed. 2004). Under general tort principles, it does not depend on actual negligence or intent to harm, but is based on the breach of an absolute duty to make something safe. Strict liability most often applies either to ultrahazardous activities or in products-liability cases. *Id.* at 934

219. *BMC II*, 498 F.3d at 1381. Thus, the court reiterated the rule that direct infringement requires a party to perform or use each and every step or element of the claimed method or product. See Conapinski, *supra* note 200 (discussing the Federal Circuit’s rejection of broad joint infringement theories).

220. *BMC II*, 498 F.3d at 1381. Conversely, the court reasoned that because indirect liability requires a showing of specific intent, “[u]nder BMC’s proposed approach, a patentee would

In light of the recognized risks posed by the “direction or control” standard, the court offered its solution: proper claim drafting.²²¹ The court faulted BMC’s “ill-conceived claims” for choosing to have four different parties perform different acts within one claim.²²² To avoid the risk of actors escaping liability, the court stated that a patent applicant should “structure a claim to capture infringement by a single party,”²²³ suggesting that BMC should have drafted its claims to focus on one entity.²²⁴ As such, the court refused to “unilaterally restructure the claim or the standards for joint infringement to remedy these ill conceived claims.”²²⁵

Applying the “direction or control” standard to the facts, the court adopted the lower courts’ conclusion that the evidence was insufficient to establish that Paymentech directed or controlled the activity of the debit networks.²²⁶ Specifically, the court noted Paymentech’s failure to provide instructions or direction as to the use of the data it supplied.²²⁷ And even though the court admitted that evidence illustrating instruction would “allow it to survive summary judgment,” the court refused to infer instruction from the provision of data alone.²²⁸ Finally,

rarely, if ever, need to bring a claim for indirect infringement.” *Id.*

221. Claim drafting occurs during patent prosecution. Patent prosecution is the process of applying for a patent through the United States Patent and Trademark Office (U.S.P.T.O.) and negotiating with the patent examiner. *See infra* note 406 (discussing patent prosecution).

222. “The concerns over a party avoiding infringement by arms-length cooperation can usually be offset by proper claim drafting.” *BMC II*, 498 F.3d at 1381.

223. *Id.* (citing Lemley, *supra* note 171, at 272–75).

224. The court expanded on its “single entity claim drafting” solution, explaining that “the steps of [BMC’s] claim might have featured references to a single party’s supplying or receiving each element of the claimed process.” *Id.*

225. *Id.*

226. *Id.*

227. *Id.* *But see* *Privasys, Inc. v. Visa Int’l*, No. C 07-03257 SI, 2007 WL 3461761, at *2 (N.D. Cal. Nov. 14, 2007). In *Privasys*, the court construed *BMC* in a later case with similar patented technology, holding that a party could overcome summary judgment. The court reasoned as follows:

[The] plaintiff has already indicated that it can produce precisely the type of evidence that had been absent in *BMC Resources*, i.e. that [the defendant] provides instructions or direction regarding the use of its [device] to the merchants and banks involved in the process, and also that [the defendant] has a contractual relationship with the financial institutions.

Id. (internal citations and quotations omitted).

228. *BMC II*, 498 F.3d at 1381–82.

BMC argues that instructions or directions can be inferred from the provision of these data, or that the data themselves provide instructions or directions. Having presented no evidence to support either theory, BMC is not entitled to the inference with respect to the debit networks that would allow it to survive summary judgment.

Id.

the court specifically faulted the lack of evidence “of a contractual relationship”²²⁹ between Paymentech and the financial institutions. In conclusion, the Federal Circuit found no basis for holding Paymentech vicariously liable for the actions of such unrelated parties who carried out some of the steps of the asserted process claims.²³⁰

IV. ANALYSIS

The “direction or control” requirement for joint infringement liability that resulted from the Federal Circuit’s *BMC* decision is erroneous as a matter of law. This Part dissects the legal and logical deficiencies of the Federal Circuit’s *BMC* holding.²³¹ First, this Part discusses the court’s flawed logic in inferring that “direction or control” was required by precedent and erroneously adopting the standard.²³² Next, this Part analyzes how the “direction or control” standard was contrary to, and an unwarranted upward departure from, the great weight of precedent.²³³ This Part then discusses the court’s failure to adequately incorporate the *On Demand* holding in its analysis.²³⁴ Finally, this Part discusses the “direction or control” standard’s inconsistencies with the statutory scheme and congressional intent.²³⁵

A. The “Direction or Control” Requirement Was a Result of Error as a Matter of Law

The “direction or control” requirement was based upon the incorrect application of legal precedent and erroneous analyses by the deciding courts. The magistrate judge’s erroneous conclusion that “direction or control” was required by precedent was subsequently adopted as a matter of law by both the district court and the Federal Circuit. Accordingly, this Part begins by highlighting the logical flaws underlying the magistrate’s decision.²³⁶ Next, this Part tracks this

229. *Id.* at 1382.

230. *Id.* at 1375.

231. See Brief of Plaintiff-Appellant, *supra* note 122 (discussing the legal errors present in the Federal Circuit’s *BMC* opinion).

232. See *infra* Part IV.A (explaining why the Federal Circuit erred in inferring that precedent required a “direction or control” standard).

233. See *infra* Part IV.B (discussing how a “direction or control” standard was contrary to the established body of joint infringement jurisprudence).

234. See *infra* Part IV.C (explaining how the *On Demand* holding required “participation and combined action,” not “direction or control”).

235. See *infra* Part IV.D (discussing why the “direction or control” standard is inconsistent with the statutory scheme, because joint infringement aligns neatly with the statutory scheme and Congressional intent).

236. See *supra* Part III.B (setting forth the holding and reasoning of the magistrate judge).

erroneous logic through the district court and Federal Circuit opinions, which adopted the magistrate's "direction or control" standard.²³⁷

To begin, the magistrate erred in reasoning that in cases where distinct entities were liable for direct infringement, the requisite "close relationship" existed only when the "party accused of infringement directs or controls the actions of the other party."²³⁸ In reaching this conclusion, the magistrate reviewed *Mobil Oil*, *Cordis*, and *Marley Mouldings*; but requiring a "direction or control" relationship is directly contrary to the holdings in these cases. Rather, the very cases from which the magistrate drew the "direction or control" standard serve to illustrate a significantly lower threshold for establishing direct infringement.²³⁹

The relationship sufficient to impose liability in *Mobil Oil*, based on the defendant's sale of the product and knowledge that the process would be completed, is far more attenuated than "agency" and/or "direction or control."²⁴⁰ Under legal principles of agency, sale and knowledge fall far short of forming an agency relationship,²⁴¹ so inferring an agency requirement from the *Mobil Oil* Court's mere use of the word ignores black letter law. Further, even the magistrate himself

237. See *supra* Part III.C–D (setting forth the holding and reasoning of the district court and the Federal Circuit respectively).

238. See *supra* note 159 and accompanying text (illustrating the magistrate's attempt to square its perceived conflicting theories of law by imposing the "direction or control" standard).

239. Compare *Mobil Oil Corp. v. W.R. Grace & Co. (Mobil Oil Corp.)*, 367 F. Supp. 207, 253–54 (D. Conn. 1973) (finding sale and knowledge to be sufficient for imposing direct infringement liability), *ruled not infringed on other bases by Mobil Oil Corp. v. Filtrol Corp. (Mobil Oil Corp. Consolidated Cases)*, 501 F.2d 282 (9th Cir. 1974), with *Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323, 349 (D. Del. 2002) (adopting the "some connection" standard), and *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *3 (N.D. Ill. Apr. 30, 2003) ("A party cannot avoid direct infringement merely by having another entity perform one or more of the required steps when that party is connected with the entity performing one or more of the required steps."). The circumstances under which liability was imposed in these three cases set forth a distinctly lower standard than "direction or control."

240. In *Mobil Oil Corp.*, a seller was found liable for direct infringement by virtue of its knowledge and sale to purchasers who completed the patented process. *Mobil Oil Corp.*, 367 F. Supp. at 253–54. The crux of the court's determination was founded on the defendant "*knowing full well* that the infringement step would in fact be promptly and fully completed by those customers." *Id.* at 253 (emphasis added).

241. Mere knowledge or sale is insufficient to bring about an agency relationship. A legal agency relationship requires that both the agent and the principal manifest their assent to the agency relationship. An agent must act on behalf of the principal. RESTATEMENT (THIRD) OF AGENCY § 1.01 (2006). The principal must have the legal right to control the acts of the agent, and to terminate the agent's authority to act on its behalf. *Id.* cmt. c. The agency relationship must be of a fiduciary nature, such that the agent is required to act in the principal's best interest as a matter of law. *Id.* cmt. e. Once an agency relationship is established, the actions of an agent are attributable and binding upon the principal. *Id.* cmt. c.

stated that sale and knowledge are insufficient to establish “direction or control.”²⁴² Indeed, had the magistrate’s own proffered standard been applied in *Mobil Oil*, there could have been no finding of direct infringement.²⁴³

Similarly, a “direction or control” requirement could not reasonably be inferred from *Cordis*, which expressly adopted the lesser “some connection” standard and rejected arguments that entities must have an agency relationship.²⁴⁴ In fact, the *Cordis* holding is opposite of what the magistrate’s standard would require: even if direction or control was exhibited by the seller, the *Cordis* court instead imposed liability on the purchaser who had been the object of any such direction or control.²⁴⁵ Likewise, the *Marley Mouldings* court deemed the “some connection” standard appropriate in concluding that “a party cannot avoid direct infringement . . . when that party is connected with the entity performing one or more of the required steps.”²⁴⁶

Next, and without analysis,²⁴⁷ the district court adopted the magistrate’s “direction or control” requirement as a matter of law.²⁴⁸

242. *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289, at *6 (N.D. Tex. Feb. 9, 2006) (“[T]he legislative history of section 271(a) indicates Congress’s understanding that method claims could only be directly infringed by use.”) (quoting *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1318–21 (Fed. Cir. 2005)).

243. *See supra* text accompanying note 242. The *Mobil Oil Corp.* court imposed liability by virtue of the defendant’s sale, while the magistrate himself expressly stated that sale was not sufficient to impose liability for direct infringement. As such, the connection between entities whose combined action infringed the patent in *Mobil Oil Corp.* would fall short of the “direction or control” standard, as it constituted mere sale.

244. “To constitute a predicate act of direct infringement of a process claim, either a single entity must perform every step of the method or, if two or more entities perform different steps of the method, those entities must have some connection to each other.” *Cordis Corp.*, 194 F. Supp. 2d at 349. The court rejected the argument that entities must work in concert, work together jointly, or have an agency relationship, and found no compelling argument to change the standard. *Id.* at 349 n.19.

245. *Id.* at 349–50.

246. *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02 C 2855, 2003 WL 1989640, at *3 (N.D. Ill. Apr. 30, 2003). The *Marley Mouldings* court felt the need to conduct an analysis on the appropriate standard for divided infringement liability, noting that “[n]either the Supreme Court nor the Federal Court of Appeals has addressed the issue of whether a party who does not perform every step of a method claim may be liable for direct infringement of a method claim where separate entities perform separate steps of a method claim.” *Id.* at *2.

247. Instead, the district court merely stated: “Having reviewed the Findings and the authorities cited by Plaintiff, the Court agrees with Judge Kaplan and finds that Plaintiff must prove that the party accused of infringement direct or controls the actions of the other entity or entities performing the steps of the process patent.” *BMC Res., Inc. v. Paymentech, L.P. (BMC I)*, No. 03-CV-1927-M, 2006 WL 1450480, at *6 (N.D. Tex. May 24, 2006).

248. However, when synthesizing the relevant case law, the district court itself illustrated that the common thread among district courts required only “some connection,” while noting the otherwise inconsistent requirements. The district court began by stating the overarching

The problems presented by the district court's unsubstantiated adoption of the "direction or control" standard are twofold. First, the district court's failure to independently analyze the required standard for joint infringement constitutes the same legal error for which the district court faulted the *On Demand* court.²⁴⁹ Second, the district court's demonstrated awareness of the inconsistencies in joint infringement precedent²⁵⁰ warranted an independent review, as opposed to the expedient adoption of the magistrate's flawed analysis.²⁵¹

Unlike the district court, the Federal Circuit recognized the need for an independent analysis of the proper standard for joint infringement of a patented process.²⁵² However, while doing so, the Federal Circuit cited the district court for the proposition that courts have "generally refused to find liability where one party did not control or direct each step of the patented process."²⁵³ The Court's logic is inapposite. The Federal Circuit itself recognized the novelty of the "direction or control" standard;²⁵⁴ therefore, the district court's statement cannot be said to support a generally accepted precedential principle.²⁵⁵ Further, even though the magistrate and district court erred in their analysis of

requirement of "some connection" between specific entities, but noted that "courts vary, however, as to what kind of 'connection' between the entities they require a party to prove to show direct infringement." *Id.* at *3.

249. In the district court's dismissal of *On Demand*, it pointedly noted that the court's finding of "no flaw" in the instruction as a statement of law was conducted "[w]ithout analysis." *Id.* at *3 n.3. This criticism was part of the district court's reasoning in finding the *On Demand* holding unpersuasive.

250. See *supra* note 248 and accompanying text (illustrating the court's awareness of the inconsistent "connection" requirements for imposing direct infringement liability).

251. See *supra* text accompanying notes 238–246 (illustrating the errors in the magistrate's analysis).

252. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1378 (Fed. Cir. 2007). The Federal Circuit impliedly disapproved of some aspect of the lower court's analysis despite affirming that court's holding.

253. *Id.* at 1380. The Federal Circuit used the Magistrate's statement that "[n]o court has ever found direct infringement based on the type of arms-length business transaction presented here" to infer this general proposition. *Id.* (quoting *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289, at *6 (N.D. Tex. Feb. 9, 2006)).

254. The language of the Federal Circuit's analysis illustrates its awareness that the "direction or control" standard is novel. *Id.* at 1381; see also *infra* notes 295–301 and accompanying text (discussing the reasons that the Federal Circuit itself recognized that the "direction or control" standard was a departure from precedent).

255. Either a principle is novel or it is not. This is akin to the age-old problem with the marketing phrase "new and improved." Either a product is new and has never been made before, or it is an improvement on a product that has been made before and thus is not new.

precedential case law,²⁵⁶ the reviewing court failed to recognize and remedy this defect.²⁵⁷

In its analysis, the Federal Circuit pointed to two cases where liability was not imposed because the party failed to perform all of the steps itself: *Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc.*²⁵⁸ and *Fromson v. Advance Offset Plate, Inc.*²⁵⁹ The Federal Circuit erred in applying the reasoning of the *Cross* court because the patented invention in that case was an apparatus, not a process. The infringement analysis of a process differs from that of an apparatus because the acts of infringers to practice the process are determinative in the former, while the accused product itself is determinative in the latter.²⁶⁰ Further, the determination of infringement liability was never reached in *Fromson*, as the case was remanded to the district court.²⁶¹ In sum, the magistrate, district court, and Federal Circuit erred in concluding that “direction or control” was required by precedent.²⁶²

B. Requiring “Direction or Control” Was Contrary to Legal Precedent

Beyond the absence of precedent requiring “direction or control” for joint infringement, the Federal Circuit’s decision was contrary to the

256. *Supra* Part IV.A.

257. *See supra* text accompanying notes 238–246 (illustrating the errors in the magistrate’s analysis). Further, the Federal Circuit misinterpreted the very law in which it recognized it was departing from, in stating that “expanding the rules governing direct infringement to reach independent conduct of multiple actors would subvert the statutory scheme for indirect infringement.” *BMC II*, 498 F.3d at 1381 (emphasis added). As discussed *infra* Part IV.B, precedent did not impose liability for direct infringement when actors were independent, rather “some connection between the different entities” has always been required to justify findings of direct infringement. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 U.S. Dist. LEXIS 22987, at *15 (N.D. Cal. Feb. 24, 1999).

258. *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293 (Fed. Cir. 2005).

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

260. Infringement of a process patent, unlike a patented apparatus, turns on the “use” of the known machine, manufacture, composition of matter, or material. *See* 35 U.S.C. § 100(b) (2006). Thus, actions of defendants are critical in determining whether a process patent has been infringed, because all of the steps of the patent must be performed. On the other hand, the device itself is critical to an infringement analysis of an apparatus patent. The test of whether an apparatus patent has been infringed looks to whether “every limitation recited in the claim is present in the accused device.” *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1405 (Fed. Cir. 1996). Therefore, the combined action of multiple entities is vastly more important to the infringement analysis of a process patent.

261. *Fromson*, 720 F.2d at 1571. The *Fromson* court stated that “the determination of infringement and contributory infringement must await complete findings in the first instance by the district court.” *Id.*

262. *Supra* Part IV.A.

entire body of direct infringement jurisprudence.²⁶³ The “direction or control” standard requires an agency relationship, which constitutes a drastic and unwarranted departure from the well-established rules.²⁶⁴ Precedent requires, at most, participation and combined action between entities, not direction or control.²⁶⁵

More than one hundred years of law supports imposing liability on those who facilitate infringement by others.²⁶⁶ Courts as early as 1871 found joint infringement where the combined actions of multiple entities infringed a patent.²⁶⁷ Before the 1952 Patent Act, courts were willing to impose liability for direct infringement on parties who participated to infringe process patents.²⁶⁸ Direct infringement jurisprudence was intended to be preserved after the passage of the 1952 Patent Act.²⁶⁹ Subsequent cases recognized that pre-1952 precedent

263. See Brief of Plaintiff-Appellant, *supra* note 122, at 28, (illustrating how the district court’s conclusion that a plaintiff must prove that the accused infringer directed or controlled the actions of other entities performing the steps of the process patent is contrary to *On Demand*, the patent statute, patent policy, and the great weight of prior district court decisions).

264. *Id.* at 38–39.

There is simply no basis for concluding that prior district court decisions appear to require an agency relationship or evidence that the accused infringer directs or controls the infringing activities of the other parties At most, some decisions have held evidence that a participant who directs, controls, or instructs the others is sufficient, but not necessary, to hold that participant liable.

Id.

265. See *supra* Parts II.C–F (discussing prior district court decisions, as well as the evolution of direct infringement jurisprudence).

266. In 1980, the Supreme Court applied the reasoning of an 1871 case for the proposition that liability exists for those who facilitate infringement by others. See Amicus Brief of Production Resource Group LLC Supporting Rehearing *En Banc* at 2, *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, (W.D. Penn. Aug. 7, 2008) (No. 2007-1485) [hereinafter Amicus Brief of Production Resource Group LLC Supporting *en banc* Rehearing] (discussing how the Supreme Court’s reasoning is equally applicable in the context of joint infringement).

267. *Wallace v. Holmes*, 29 F. Cas. 74, 80 (D. Conn. 1871). This case found infringement of a lamp patent where each party completed a part “in actual concert with a third a party, with a view to the actual production of the patented improvement.” *Id.* The court found that the parties’ steps were “each utterly useless without the other, and each intended to be used . . . with the other,” such that they were held to be “joint infringers of the complainant’s patent.” *Id.*

268. See *Bullock Elec. & Mfg. Co. v. Westinghouse Elec. & Mfg. Co.*, 129 F. 105, 112 (6th Cir. 1904) (finding infringement where there is an “intent to assist another in an infringing use of the patented method”); see also *Peerless Equip. Co. v. W.H. Miner, Inc.*, 93 F.2d 98, 105 (7th Cir. 1937) (affirming a finding of infringement because the manufacturer passed the nearly-finished gears onto the customer “with the knowledge that the railroads will put them to use and thereby flatten the crown, thus completing the final step of the process”).

269. See *infra* note 331 (discussing Senate Reports accompanying the 1952 Patent Act); see also *supra* note 89 (illustrating how courts interpreting infringement after passage of § 271(a) stated that the section “left intact” the “entire body of case law on direct infringement” and thus recognized that direct infringement precedent had not been disturbed); *infra* Part IV.D (discussing the statutory language and legislative history of the 1952 Patent Act).

indeed survived the passage of the Act,²⁷⁰ and that section 271 “left intact the entire body of case law on direct infringement.”²⁷¹ With precedent undisturbed, cases after the Patent Act continued to impose liability for direct infringement when an actor did not complete every step of the patented method,²⁷² so long as the entities had some connection.²⁷³

While pre-1952 cases generally imposed liability on the selling party,²⁷⁴ a line of district court cases after 1952 gave rise to inconsistencies and exceptions,²⁷⁵ which serve to illustrate the extent to which the controlling standard for joint infringement remains “participation and combined action,” not “direction and control.”²⁷⁶ Ultimately, courts have consistently held that any “unauthorized use,

270. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 26–27 (1997).

271. Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 483 (1964).

272. See Gerdelman, *supra* note 31, at 2006–11 (discussing the evolution of joint infringement liability, namely district court decisions which imposed liability upon an entity who did not themselves perform every step of a patented process).

273. “[C]ourts have found a party liable for direct infringement of a process patent even where the various steps included in the patent are performed by distinct entities. However, these cases indicate that some connection between the different entities justified that finding.” Faroudja Labs., Inc. v. Dwin Elecs., Inc., No. 97-20010 SW, 1999 U.S. Dist. LEXIS 22987, at *15 (N.D. Cal. Feb. 24, 1999).

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

275. A line of district court decisions after the 1952 Act generally imposed liability on the purchasing party. *E.g.*, E.I. Dupont de Nemours & Co. v. Monsanto Co., 903 F. Supp. 680, 733–35 (D. Del. 1995). This shift in the imposition of liability based upon an actor’s order of performance did not create a bright line rule, but rather created inconsistencies and exceptions. For example, in *Dupont* the court held a *completing* party liable when it paid the selling party to perform a step of the patented process, while the *Mobil Oil Corp.* court imposed liability on a *selling* party who knew infringement would be completed by its customers. The *Dupont* court determined that it was more appropriate to impose liability on the party which bought and completed the patented process, reasoning that it could not avoid liability for infringement “by paying [selling party] to practice step (a) of the patented process for it.” *Dupont*, 903 F. Supp. at 735. The court went on to explain:

None of these cases holds, however, that the third party who performs one step of a patented process and then sells the resulting product to the direct infringer . . . is also liable as a *direct* infringer under § 271(a). Clearly, the direct infringer in this case is [the party] who buys the [product encompassing the first step of the patented process] and then uses it to perform the process claimed.

Id.

276. For example, *Dupont* and *Cordis* turned the purported “direction or control” standard upside down. In each case, the participant held liable for direct infringement was being directed or controlled by another participant, rather than the other way around.” See Brief of Plaintiff-Appellant, *supra* note 122, at 39 (discussing how these two cases were inconsistent with a “direction or control” standard, and served to illustrate the “some connection” standard). Similarly, in *Mobil Oil Corp.*, the selling entity was held liable, and the completing entity escaped liability. *Mobil Oil Corp.*, 367 F. Supp. at 211.

without more, constitutes infringement,”²⁷⁷ encompassing the combined action of multiple entities who use a patented process. Thus, the traditional rule remains that liability for direct infringement results when the combined action of two or more distinct entities results in infringement.²⁷⁸

In effect, the “direction or control” standard requires an agency relationship between entities,²⁷⁹ which is a considerable upward departure from participation and combined action.²⁸⁰ The very first paragraph of the Federal Circuit’s opinion stated that it found no basis to hold Paymentech “vicariously responsible” for the actions of the other entities.²⁸¹ Vicarious liability necessarily infers an agency relationship—without an agency relationship vicarious liability may not be imposed.²⁸² The court continued to use agency language throughout the opinion, later stating “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.”²⁸³ Phrased in this way, the

277. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 484 (1964) (citing *Birdsell v. Shaliol*, 112 U.S. 485 (1884); *Union Tool Co. v. Wilson*, 259 U.S. 107, 114 (1922); *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 32–33 (1929); *Gen. Talking Pictures Corp. v. Western Elec. Co.*, 305 U.S. 124, 127 (1938)).

278. “Liability is imposed on each participant equally and indiscriminately—they are joint infringers and jointly liable for patent infringement.” See Brief of Plaintiff-Appellant, *supra* note 122, at 30 (discussing how *On Demand* confirms the general rule that liability can be established regardless of whether one participant directs or controls the others).

279. The Federal Circuit adopted the magistrate’s statement of the law, requiring “an agency relationship or evidence that the accused infringer directs or controls the infringing activities of the other parties” before direct infringement liability could be imposed. *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289, at *6 (N.D. Tex. Feb. 9, 2006) (emphasis added); *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1380 (Fed. Cir. 2007) (“The district court properly analyzed the law and this court’s cases.”).

280. “This is a rather strict standard, contemplating almost an alter ego and certainly not a mere customer relationship.” Lemley, *supra* note 171, at 260 (discussing the “direction or control” standard).

281. *BMC II*, 498 F.3d at 1379.

282. Vicarious liability is defined as the “[l]iability that a supervisory party (such as an employer) bears for the actionable conduct of a subordinate or associate (such as an employee) based on the relationship between the two parties.” BLACK’S LAW DICTIONARY 934 (8th ed. 2004). Agency is a fiduciary relationship created by express or implied contract or by law, in which one party (the agent) may act on behalf of another party (the principal) and bind the other party by words or actions. An agency relationship renders the principal legally liable for the actions of its agent. *Id.* at 67. Thus, vicarious liability may not be imposed without an agency relationship. See *Kolstad v. Am. Dental Ass’n*, 527 U.S. 526, 541–43 (1999) (discussing how vicarious liability is limited to the acts of a principal’s agent); *Pa. State Police v. Souders*, 542 U.S. 129, 144 (2004) (discussing how vicarious liability is imposed on an employer when the “agent is aided in accomplishing the tort by existence of the agency relation”).

283. *BMC II*, 498 F.3d at 1379.

court implied that proving “direction or control” is the only sufficient means by which a party may prove the requisite agency relationship.²⁸⁴

An agency relationship is a substantial increase in the standard for joint infringement.²⁸⁵ Patent infringement amounts to a tortious taking of the patentee’s property,²⁸⁶ so joint infringers are held jointly and severally liable.²⁸⁷ Under general principles of tort law, however, joint and several liability does not require that parties have an agency relationship, but merely requires that their participation and combined action resulted in the tort.²⁸⁸

Vicarious liability, in fact, is a distinctly different basis of liability when compared to joint and several liability. Specifically, the mechanisms by which each doctrine attaches liability to a defendant are drastically different.²⁸⁹ Vicarious liability imposes liability on an actor for a tort that was admittedly a result of the conduct of another by virtue of the actor’s agency relationship with the other, even though the tortious injury was not a direct result of the actor’s conduct.²⁹⁰ However, joint and several liability looks to whether the conduct of all of the actors resulted in the injury, and then imposes liability on all of the actors jointly and severally.²⁹¹ In terms of joint and several liability,

284. See Lemley, *supra* note 171, at 281. Discussing litigation strategies for divided patent claims, the author “emphasize[d] that proof of agency is something that requires direction and control, and not merely a customer relationship. As a result, it will not be appropriate in all or even most cases of divided infringement.” *Id.*

285. See *infra* text accompanying notes 295–301 (illustrating the Federal Circuit’s acknowledgement that its holding was a departure from precedent).

286. *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641 (1915).

287. Joint and several liability may be apportioned either among two or more parties or to only one of a few select members of the group, at the adversary’s discretion. Thus, each liable party is individually responsible for the entire obligation. BLACK’S LAW DICTIONARY 933 (8th ed. 2004).

288. “Liability attaches to each participant when an infringement results from the participation and combined action(s) of more than one persons or entities. The participant who performs one step for another participant is also jointly liable even though such participant would not have directed or controlled anyone.” Brief of Plaintiff-Appellant, *supra* note 122, at 30 (internal citations and quotations omitted).

289. Joint and several liability is a question of cause *in fact*: should liability attach because, without the combined actions of the defendant actors, this single indivisible injury would not have occurred? Conduct is the cause in fact of an injury when the harm would not have occurred absent the conduct. RESTATEMENT (THIRD) OF TORTS § 26 (2005). On the other hand, vicarious liability is a question of proximate cause: after finding the actors are the cause in fact of the injury, *should* liability attach by virtue of the relationship between the defendant actors? Proximate cause is often called legal cause, and is a policy determination as to whether the consequences were reasonably foreseeable such that liability should attach. See *id.* (discussing proximate cause).

290. See *supra* note 282 (defining vicarious liability).

291. See *supra* note 287 (defining joint and several liability).

the injury was indeed a direct result, in part, of the conduct of the actor.²⁹² Accordingly, the great weight of precedent reflecting the “participation and combined action” standard closely aligns with general tort principles of joint and several liability.²⁹³

The Federal Circuit itself recognized that its holding was a drastic departure from established precedent because it fully explained the reasoning behind imposing the standard.²⁹⁴ Under general standards of judicial conduct, had the Federal Circuit viewed the standard as a mere continuation of precedent, this explanation would be unnecessary.²⁹⁵ The Federal Circuit’s express acknowledgement that the new “standard requiring direction or control may in some circumstances allow parties to enter into arms-length agreements to avoid infringement” further illustrates this point.²⁹⁶ The word “may” is especially significant because it speaks to the present or future, and does not indicate the past.²⁹⁷ Finally, the Federal Circuit felt it further necessary to hedge its stringent standard in multiple portions of the opinion.²⁹⁸ For example, the Federal Circuit spent its entire infringement analysis explaining how “direction or control” was necessary to justify imposing vicarious liability, and then essentially undercut its assertion by stating it would be “unfair” in certain instances.²⁹⁹ In effect, this provided an essential “How To Avoid Liability” roadmap to potential infringers.³⁰⁰ Thus, in

292. See *supra* note 287.

293. See *supra* Part IV.B (discussing how the great weight of precedent required participation and combined action, not direction or control).

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

295. When a court acts in accordance with a generally established principle of law, they generally do so *sub silentio*, or without being expressly mentioned. BLACK’S LAW DICTIONARY 1469 (8th ed. 2004). In contrast, when a court intends to change the law it is generally improper to do so *sub silentio*. Therefore, it can be inferred that a court’s express mention and analysis of a change in the law is, in fact, a departure from the previous standard of the law. See Amicus Brief of Production Resource Group LLC Supporting *en banc* Rehearing, *supra* note 266, at 5 (discussing how it would be improper for a panel to change the law *sub silentio*).

296. *BMC II*, 498 F.3d at 1381.

297. As set forth in the dictionary, “may” is a present auxiliary verb, and can be used to express possibility, opportunity, permission, or contingency. In contrast, “might” is ordinarily used as the past tense form of the verb “may,” used to express past possibility, past opportunity, or past permission. RANDOM HOUSE UNABRIDGED DICTIONARY (Random House 2006). Therefore, in this context the Federal Circuit’s use of the word “may” illustrates its recognition that imposition of this standard will have a novel effect in the future, as it is a departure from the previous standard.

298. For example, the Federal Circuit notes that, in some circumstances, it would impose liability for direct infringement, as “[i]t would be unfair indeed for the mastermind . . . to escape liability.” *BMC II*, 498 F.3d at 1381.

299. *Id.*

300. The Federal Circuit essentially told potential infringers how to avoid liability by admitting that parties may circumvent infringement liability by entering arms-length agreements.

the very same opinion, the Federal Circuit grappled for possible solutions to the monster it had itself created.³⁰¹

C. On Demand Required “Participation and Combined Action”

Both the district court and the Federal Circuit erred in failing to fully consider the Federal Circuit’s *en banc* holding in *On Demand*, which was controlling precedent.³⁰² The *On Demand* case unmistakably confirmed that joint infringement is a viable legal theory and results from the participation and combined action of more than one entity.³⁰³

Both courts erred in dismissing the panel’s statement of the legal standard for joint infringement as mere *dictum*.³⁰⁴ The Supreme Court has held that portions of an opinion that include the final disposition of a case as well as preceding determinations necessary to that result are holdings, not *dicta*.³⁰⁵ The *On Demand* court was squarely presented with the question of joint infringement liability; the conclusion as to the jury instruction was a preceding determination necessary to the resulting conclusion on joint infringement.³⁰⁶ The Federal Circuit’s *en banc*

Id.

301. The court attempted to offer a solution to the “concerns over a party avoiding infringement by arms-length cooperation,” the solution being drafting claims to capture infringement by only a single party. *Id.*

302. The Federal Circuit’s precedent is binding as a matter of law on subsequent district courts. Further, in *On Demand* the Federal Circuit was sitting *en banc*, which means that the case was considered and heard by a three judge panel. This carries additional precedential weight because the Federal Circuit sitting *en banc* may only be overruled by the Supreme Court or another Federal Circuit decision made *en banc*. Arthur D. Hellman, “*The Law of the Circuit*” *Revisited: What Role for Majority Rule?*, 32 S. ILL. U. L.J. 625, 625 (2008).

303. Plaintiff’s Supplemental Brief to Advise the Court of New Federal Circuit Authority on Joint Infringement in Support of BMC’s Objections, *BMC Res., Inc. v. Paymentech, L.P.*, 2006 WL 1450480 (N.D. Tex. Apr. 11, 2006) (No. 3:03-CV-1927-M).

304. Central to each Court’s dismissal of the *On Demand* statement of the law with respect to joint infringement liability was the fact that the case turned upon other grounds, so that the “participation and combined action” standard it imposed was non-precedential. *BMC Res., Inc. v. Paymentech, L.P. (BMC I)*, No. 03-CV-1927-M, 2006 WL 1450480, at *3 n.3 (N.D. Tex. May 24, 2006); *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1379–80 (Fed. Cir. 2007). While the Federal Circuit did conduct a minimal analysis of the *On Demand* case, it too dismissed the holding as non-binding, reasoning that the jury instruction was “not even directly necessary to its decision in the case.” *BMC II*, 498 F.3d at 1380.

305. *Tyler v. Cain*, 533 U.S. 656, 663 n.4 (2001). “As a general rule, the principle of *stare decisis* directs us to adhere not only to the holdings of our prior cases, but also to their explications of the governing rules of law.” *County of Allegheny v. Am. Civil Liberties Union, Greater Pittsburgh Chapter*, 492 U.S. 573, 688 (1989). Instead, *dicta* consists of statements in judicial opinions upon a point or points not necessary to the decision of the case. *In re McGrew*, 120 F.3d 1236, 1238 (Fed. Cir. 1997).

306. To reach the issue of joint infringement, the *On Demand* court first had to decide that the jury instruction pertaining to joint infringement contained no flaw. Second, the court had to determine whether the defendants combined to infringe all of the steps of the patent. Therefore,

review of the jury instruction thus amounted to a precedential holding as to the legal standard for joint infringement, and this warranted judicial consideration.³⁰⁷ The jury instruction was also directly challenged on appeal,³⁰⁸ so the Federal Circuit was also speaking within its authority to resolve the challenged issue.³⁰⁹

Plainly, the Federal Circuit must have intended that lower courts deciding joint infringement cases follow the *On Demand* holding.³¹⁰ Less than five months before *On Demand*, the Federal Circuit recognized that it had not previously addressed the issue of joint infringement.³¹¹ The Federal Circuit would not have issued a decision addressing a recognized issue of first impression—sitting *en banc* nonetheless—unless it intended the decision to be followed.³¹² The language of *On Demand* itself illustrates the panel’s recognition of the need to address this issue.³¹³

the first determination was necessary to address the evidence of joint infringement. Brief of Plaintiff-Appellant, *supra* note 122, at 30–31.

307. *Id.*

308. *See On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1337 (Fed. Cir. 2006) (“On this appeal defendants . . . dispute various jury instructions.”).

309. The Federal Circuit spoke to the importance of jury instructions, illustrating its recognition of the need to resolve this issue upon appeal. “A jury instruction based on incorrect law, such as an erroneous claim construction that may have affected the verdict, receives *de novo* review. An erroneous jury instruction may warrant a new trial.” *Id.*

310. Brief of Plaintiff-Appellant, *supra* note 122, at 31.

311. *Freedom Wireless, Inc. v. Boston Commc’ns Group, Inc.*, Nos. 06-1020, 1078–79, 1098–99, 2006 WL 2883135, at *6–7 (Fed. Cir. Dec. 15, 2005) (stating that “[t]his court has not directly addressed the theory of joint infringement . . .”). Before *Freedom Wireless* arrived in the Federal Circuit, the district court provided the following jury instruction:

If separate companies work together to perform all of the steps of a claim of a patent, the companies are jointly responsible, that is, responsible as a group—for the infringement of the patent. Even if no single company performs all of the steps of a claim, the companies are jointly responsible. Thus, to prove joint infringement liability, the patent owner must show that separate companies worked together to perform all of the steps of a claim.

R. Trevor Carter, *Ramifications of Recent Decisions on Business Method and Software Patents*, in *THE IMPACT OF RECENT DEVELOPMENTS ON YOUR PRACTICE 2007*, at 813, 832 (PLI Litig. & Admin. Practice, Course Handbook Series No. 899, 2007). The Federal Circuit hearing *Freedom Wireless* actually requested briefs on the joint infringement issue, but did not have the opportunity to address the correctness of the district court’s jury instruction before the case settled. *Id.*

312. Brief of Plaintiff-Appellant, *supra* note 122, at 31–32. As the purpose of the Federal Circuit is to promote uniformity in patent law, it would be imprudent to address an issue of first impression without intending such an opinion to be followed.

313. *See supra* note 309 (discussing the Federal Circuit’s illustration of the importance of jury instructions).

D. The “Direction or Control” Standard is Inconsistent with the Statutory Scheme and Congressional Intent

The Federal Circuit erred in reasoning that permitting joint infringement liability without a finding of “direction or control” would subvert the statutory scheme for indirect infringement.³¹⁴ In fact, joint infringement is consistent with the statutory design and the congressional intent behind it and would not controvert claims of indirect infringement.

Construction of § 271(a),³¹⁵ the statute governing direct infringement liability, makes clear that joint infringement is included within the parameters of the statute.³¹⁶ The operative statutory language to consider is “whoever . . . uses . . . any patented invention . . . infringes the patent.”³¹⁷ The words of a statute are given their ordinary meaning absent an indication that Congress intended otherwise.³¹⁸ The ordinary meaning of the word “whoever” is plural, and means “whatever person or persons.”³¹⁹ Thus, the plain statutory language contemplates direct infringement when a group of persons practice the patented process.³²⁰ Conversely, the plain language of § 271(a) does not state, much less require, “direction or control.”³²¹ It is a generally accepted principle that if Congress sought to impose a critical statutory requirement, it would expressly say so.³²² Without a relationship requirement in the plain statutory language, one cannot and should not be imported.³²³

314. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1381 (Fed. Cir. 2007). (“Expanding the rules governing direct infringement to reach independent conduct of multiple actors would subvert the statutory scheme for indirect infringement.”).

315. Only subsection (a) of § 271 outlines direct infringement; subsections (b) and (c) outline causes of action for indirect infringement. 35 U.S.C. § 271(a) (2006); *see also supra* notes 78 and 79 (outlining indirect infringement).

316. Brief of Plaintiff-Appellant, *supra* note 122, at 31.

317. *Id.*

318. *Bayer AG v. Housey Pharm., Inc.*, 340 F.3d 1367, 1371 (Fed. Cir. 2003); *see also* *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317–18 (Fed. Cir. 2005) (construing § 271(a)).

319. Dictionaries of the English language provide the ordinary meaning of words used in statutes. *Bayer*, 340 F.3d at 1371; *THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE* 1631 (4th ed., Houghton Mifflin Co. 2004) (defining “whoever” as “whatever person or persons”) (emphasis added).

320. Brief of Plaintiff-Appellant, *supra* note 122, at 33.

321. *Id.*

322. *See* *New Jersey v. Delaware*, 128 S. Ct. 1410, 1433 (2008) (stating that application of this principle makes statutory construction “perfectly clear”); *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 680 (2007) (stating that, had the framers meant to make a drastic change in the law, they would have said so); *Brown v. Payton*, 544 U.S. 133, 153 (2005) (stating that, had the legislature meant for requirements to be included in the law, it would have said so explicitly).

323. Brief of Plaintiff-Appellant, *supra* note 122, at 33.

Congressional intent illustrates that an agency relationship is not required because the codification of direct infringement was intended to encompass situations in which the actions of multiple entities combine to infringe a patent.³²⁴

Congressional intent to impose direct infringement liability when parties jointly infringe a patented process also aligns with the statutory scheme³²⁵ and the intent underlying indirect infringement provisions.³²⁶ The purpose of the indirect infringement statutes is to prevent circumvention of a patentee's exclusive rights when a party "appropriates the benefit of the invention" without facing liability.³²⁷ Because Congress thought it was vital to prevent circumvention of a patentee's exclusive rights, it created new forms of infringement liability.³²⁸ This action considerably expanded the rights of patent owners.³²⁹

The critical component of the statutory scheme, however, remains the required predicate finding of direct infringement in order to have any recourse for indirect infringement.³³⁰ Congress viewed indirect infringement mechanisms as important;³³¹ it must follow that Congress likewise intended to prevent circumvention of a patentee's rights through direct infringement enforcement mechanisms.³³² Without first

324. See *supra* Part IV.B (discussing the survival of the pre-1952 precedent regarding joint infringement).

325. A fundamental canon of statutory construction holds that "statutory provisions *in pari materia* normally are construed together to discern their meaning." *Erlenbaugh v. United States*, 409 U.S. 239, 243-44 (1972). This principle applies to both statutes *in pari materia*, as well as sections of a single statute. *Id.*

326. *Joy Techs., Inc. v. Flakt, Inc.* 6 F.3d 770, 775 (1993).

327. S. Rep. No. 82-1979, at 8 (1952), *reprinted in* 1952 U.S.C.C.A.N. 2394, 2402 (stating that indirect infringement prevents appropriation of another man's patented invention, and has been characterized as an expression of both law and morals).

328. *Id.* (discussing the new codified forms of indirect infringement).

329. Due to §§ 271 (b) and (c), a patent owner whose patent had been directly infringed would have additional recourse against those entities who appropriated the benefit of the patented invention.

330. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 483 (1964).

331. Senate Reports accompanying the 1952 Patent Act maintained that the law shall continue to enjoin "those who sought to cause infringement by supplying someone else with the means and directions for infringing a patent." *Supra* note 327. This statement was taken from the Senate's discussion of contributory infringement, and illustrates the established importance of indirect infringement mechanisms.

332. Congressional intent to broadly construe direct infringement within the statutory scheme is further illustrated by 35 U.S.C. § 287(c)(1). Under this statute, when a medical practitioner performs an activity which would constitute direct infringement or inducement of infringement, an injured plaintiff may not recover injunctive relief, damages, or attorney's fees from the medical practitioner or a related health care entity. 35 U.S.C. § 287(c)(1) (2006). This statute was enacted for policy reasons regarding medical processes. It is important to note that this

closing the gaps in patent protection in the predicate context of direct infringement, secondary enforcement mechanisms would be rendered meaningless, providing absolutely no relief to a patentee whose rights were circumvented by the combined action of multiple entities.³³³ The bedrock principle of statutory construction that statutes should not be interpreted to render portions meaningless lends further support to this conclusion.³³⁴ Indeed, the statutory indirect infringement mechanisms would be rendered meaningless and ineffective if interpreted to prevent circumvention of a patentee's rights only in the context of indirect infringement. Preventing circumvention of a patentee's rights in the context of indirect infringement can *only* be effectuated by first preventing circumvention in the predicate context of direct infringement.³³⁵

The divergent specific intent requirements between the direct and indirect infringement statutory provisions further demonstrate Congress's intent to provide broad patent protection.³³⁶ Direct infringement is a strict liability offense, so the actor's mental state is

statute merely prohibits an injured patentee from obtaining remedies; it does not excuse liability for direct infringement. The reasoning behind merely limiting remedies is illustrative. As discussed previously, the medical practitioner would be the "completing party" in the context of a patented process, and therefore his use would constitute direct infringement. *See, e.g.* E.I. Dupont de Nemours & Co. v. Monsanto Co., 903 F. Supp. 680, 733–35 (D. Del. 1995). However, Congress recognized that excusing liability for direct infringement would subvert the statutory scheme, because patent owners of medical processes would be unable to prove predicate direct infringement and therefore their exclusive rights would be essentially nonexistent.

333. Unless direct infringement is recognized when the actions of distinct entities are combined to infringe a patent, there will be a remaining loophole in the rights granted to patent owners. Process patent owners would have no defined remedy against parties who each perform only part of the process, although their combined action constitutes performance of the whole process to which the patentee had been granted exclusivity. Gerdelman, *supra* note 31, at 2004. Interestingly, this very circumvention was expressly recognized by the *BMC* court as a negative byproduct of requiring "direction or control" between entities. The Federal Circuit expressly stated: "This court acknowledges that the standard requiring control or direction for a finding of joint infringement may in some circumstances allow parties to enter into arms-length agreements to avoid infringement." *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

334. *Dunn v. Commodity Futures Trading Comm'n*, 519 U.S. 465, 472 (1997).

335. Preventing circumvention of a patentee's exclusive rights through only indirect infringement would serve no purpose unless direct infringement were construed broadly enough to also prevent circumvention of a patentee's exclusive rights. Thus, joint patent liability would facilitate the purpose behind indirect infringement, rather than unreasonably expand infringement liability. *But see* Lemley, *supra* note 171, at 262 (stating that conflating indirect infringement with direct infringement would unreasonably expand liability for direct infringement).

336. By defining what conduct short of direct infringement is sufficient to impose liability for indirect infringement, §§ 271(b) and (c) do not somehow also define what conduct establishes what defines the predicate act of direct infringement. Brief of Plaintiff-Appellant, *supra* note 122, at 35.

irrelevant to liability.³³⁷ Congress determined that the act of infringement alone is sufficiently egregious³³⁸ to warrant liability for direct infringement.³³⁹ In contrast, a culpable mental state on the part of the defendant is required before liability for indirect infringement may attach.³⁴⁰ The Federal Circuit in *BMC* correctly inferred that the purpose of the “specific intent” requirement for indirect infringement was to narrow the scope of liability;³⁴¹ however, this limitation is only applicable to indirect infringement liability. Its omission from § 271(a) provides compelling evidence that the intent requirement was not meant to apply to direct infringement.³⁴² Establishing “direction or control” amounts to a specific intent requirement; thus, the Federal Circuit erred in importing this limitation to direct infringement liability.³⁴³

337. See *supra* notes 216 and 218 (defining strict liability offenses in the context of both civil and criminal offenses); *accord* text accompanying note 215 (stating that § 271(a) neither enumerates nor suggests a requirement of mental state). *Contra* Long Truong, *supra* note 37 (suggesting a strong intent requirement of all alleged infringers should be required to impose liability for joint infringement, amounting to a cause of action for civil conspiracy).

338. Strict liability offenses are an exceptional means for attaching liability. Generally, a mental state is required to hold an actor liable unless there is a clear legislative purpose for dropping the requirement. Such purposes often include public welfare offenses or regulatory offenses, and particularly egregious offenses. Public welfare offenses impose strict liability because the action poses a high risk to the public, and the importance of the collective interest justifies imposing strict liability. See *Staples v. U.S.*, 511 U.S. 600 (1973) (discussing strict liability and public welfare offenses).

339. BLACK’S LAW DICTIONARY 1111 (8th ed. 2004) (defining “offense” as a “violation of the law; a crime, often a minor one”). Construed in this way, the statutory scheme aligns with patent policy because it grants the inventor a meaningful right to exclude. See *infra* Part V.A (explaining why imposing a “direction or control” relationship between entities is inconsistent with patent policy, as it limits a patent owner’s right to exclude).

340. See *supra* notes 78 and 79 (explaining the mental states required to impose liability for indirect infringement).

341. *Supra* note 217 and accompanying text. The court inferred that imposing a mental state on an indirect infringer would thus negate the dangers of overexpansive liability. As indirect infringement is a secondary remedy for an injured patentee, a mental state requirement does indeed limit the outer reaches of infringement liability and prevent overexpansion. For example, § 271(a) does not apply to an entity that performs no steps of a patented method. However, that same entity could be liable for inducing infringement under § 271(b). Brief of Plaintiff-Appellant, *supra* note 122, at 35.

342. The well-established legal principle *inclusio unius est exclusio alterius* supports this position. See *New Jersey v. Delaware*, 128 S. Ct. 1410, 1433 (2008) (Scalia, J., dissenting) (stating that application of this principle makes statutory construction “perfectly clear”). In Latin, this means to include one is to exclude others. Similarly, had Congress meant to include a mental state limitation for direct infringement, it would have done so expressly. See *supra* note 322 and accompanying text (illustrating cases which determined that, had the legislature meant to include requirements in the law, it would have said so explicitly).

343. Gerdelman, *supra* note 31, at 1999 (stating that a state of mind requirement is contrary to existing direct infringement jurisprudence).

The judicially-created doctrine of equivalents provides further support that statutory intent requires that direct infringement be construed broadly.³⁴⁴ This doctrine provides even broader protection against direct infringement by imposing liability on the producer of a device³⁴⁵ that performs substantially the same function, in substantially the same way, to obtain substantially the same result as the patented invention.³⁴⁶ By imposing direct infringement liability even where the defendant does not practice every element of the invention,³⁴⁷ courts have sought to avoid “convert[ing] the protection of a patent grant into a hollow and useless thing.”³⁴⁸

Therefore, the Federal Circuit erred in reasoning that imposing liability for direct infringement when the independent conduct of multiple actors combines to infringe a patent would subvert the statutory scheme for indirect infringement.³⁴⁹ In fact, it would subvert the statutory scheme to deny liability and impose gaps in the exclusive rights of a patentee in the predicate context of direct infringement.³⁵⁰ The misplaced reasoning of the *BMC* holding makes it even more necessary to analyze the impact that this holding will have on the future of infringement jurisprudence and the patent system.³⁵¹

V. IMPACT

The *BMC* decision has had, and will continue to have, a devastating impact on the patent system.³⁵² This Part will begin by discussing how

344. The doctrine of equivalents was first set forth in the case of *Winans v. Denmead*, 56 U.S. 330 (1853).

345. While this Note focuses on process patents, as opposed to device patents, the Congressional intent to impose liability for direct infringement even when every literal patented detail is not copied is applicable.

346. *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (1929). The theory on which it is founded is that, if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape. *Union Paper-Bag Mach. Co. v. Murphy*, 97 U.S. 120, 125 (1877).

347. *Prouty v. Draper*, 41 U.S. 336, 340 (1842) (setting forth the “all elements rule”).

348. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 399 U.S. 605, 608 (1950). The Supreme Court stated that “[t]he essence of the doctrine is that one may not practice fraud on a patent.” *Id.*

349. This reasoning was central to the Federal Circuit’s imposition of the “direction or control” standard. *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

350. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 482 (1964) (stating that there can be no indirect infringement without a predicate finding of direct infringement).

351. See *infra* Part V (illustrating the devastating impact that the *BMC* holding will have on the patent system).

352. See generally Brief of Plaintiff-Appellant, *supra* note 122, at 41–47 (arguing that *BMC* will have a deleterious effect on the patent system).

the “direction or control” standard leaves a glaring loophole in patent law that is inconsistent with patent policy and the business realities of modern society.³⁵³ Next, it will explain how the Federal Circuit’s suggestion of “proper” claim drafting is an insufficient solution to the existing dangers.³⁵⁴ Finally, this Part will discuss how subsequent cases have further expanded the “direction or control” standard, which is an alarming trend that threatens the stability of the patent system.³⁵⁵

A. *The “Direction or Control” Standard Imposes a Loophole in Patent Law That Is Inconsistent with Patent Policy*

The Federal Circuit’s requirement of “direction or control” creates a glaring loophole in patent law for patented methods that contemplate the action of multiple entities.³⁵⁶ The impact of the “direction or control” standard is contrary to fundamental patent policies.³⁵⁷ It diminishes and destroys the exclusive rights of process patent owners because such patents are rendered markedly vulnerable to circumvention.³⁵⁸ This harm is exacerbated by the inherent uncertainty of judicial enforcement of patent rights.³⁵⁹ By diminishing patent rights, the standard upsets the *quid pro quo* contemplated by the Constitution. Finally, the “direction or control” standard threatens the functionality of the patent system by decreasing incentives for innovation.³⁶⁰

The loophole imposed in patent law is no secret: the Federal Circuit expressly noted that process patents contemplating the actions of multiple entities are vulnerable to circumvention under a “direction or control” standard.³⁶¹ Thus, due to the *BMC* decision, current law

353. See *infra* Part V.A (explaining how the “direction or control” standard imposes a loophole in patent law that is inconsistent with patent policy).

354. See *infra* Part V.B (illustrating why “proper” claim drafting will not alleviate the dangers presented by the “direction or control” standard).

355. See *infra* Part V.C (illustrating how cases after *BMC* have further heightened the standard to one of agency).

356. Gerdelman, *supra* note 31, at 2003 (discussing the loopholes in the patent system for process patent owners).

357. See Brief of Plaintiff-Appellant, *supra* note 122, at 41–47 (discussing how the consequences of the “direction or control” standard are inconsistent with patent policy).

358. Petition for Panel Rehearing *En Banc* of Plaintiff-Appellee at 14, *Muniauction, Inc. v. Thomson Corp.*, 522 F.3d 1318 (Fed. Cir. July 28, 2008) (No. 2007-1485) [hereinafter *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee].

359. See Lemley, *supra* note 171 (discussing the risks of filing a lawsuit based solely on infringement of a divided patent claim).

360. Brief of Plaintiff-Appellant, *supra* note 122, at 41–47.

361. Even the Federal Circuit itself noted this risk when setting forth the heightened standard. See *supra* text accompanying note 296 (quoting the Federal Circuit’s language in acknowledging

provides little solace for patent owners faced with divided patent claims.³⁶² Process patent owners do not have any remedy against connected entities separately performing only parts of the process even though the combined action constitutes performance of the whole process to which the patentee has been granted exclusivity.³⁶³ Permitting a method patent to be so effortlessly circumvented equates to permitting *de facto* infringement, rendering the patentee's rights essentially meaningless.³⁶⁴

The Supreme Court requires that the patent laws be interpreted to give effect to their "object and policy,"³⁶⁵ their primary purpose being to foster innovation through the grant of an exclusive right.³⁶⁶ This right to exclude is "the very essence" of the rights conferred by a patent.³⁶⁷ As the strength of any legal right is defined by the availability of an appropriate remedy,³⁶⁸ denying the privilege of exclusion essentially destroys the patent right.³⁶⁹ The patent right is crippled by the denial of infringement remedies absent an agency relationship because it no longer prevents "any unauthorized use" as required by statute.³⁷⁰ Conversely, when connected entities jointly infringe a patented process, imposing liability for infringement is consistent with a patent owner's *meaningful* right to exclude.³⁷¹

the risks it imposed).

362. Lemley, *supra* note 171, at 284.

363. Gerdelman, *supra* note 31, at 2003.

364. Brief of Plaintiff-Appellant, *supra* note 122, at 44. Anyone could read a patent that discloses an invention involving several participants, copy exactly what is described in the patent, and avoid infringement through arms-length business relationships that divide the steps of a patented method without any one participant directing or controlling the actions of the other participants. *Id.*

365. Warner-Lambert Co. v. Apotex Corp., 316 F.3d 1348, 1355 (Fed. Cir. 2003) (quoting U.S. Nat'l Bank of Or. v. Indep. Ins. Agents of Am., Inc., 508 U.S. 439, 455 (1993)).

366. The Constitution dictates that the primary purpose of the patent laws is to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. CONST. art. I, § 8, cl. 8; *see also supra* Part II.B (discussing how innovation is achieved by granting an inventor a legal monopoly for a limited period of time).

367. Cont'l Paper Bag Co. v. E. Paper Bag Co., 210 U.S. 405, 429 (1908).

368. SUNG, *supra* note 152, at 2. "A right without a remedy is as if it were not. For every beneficial purpose it may be said not to exist." *Id.* (citing Von Hoffman v. City of Quincy, 71 U.S. 535, 554 (1886)).

369. Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538, 1562 (Fed. Cir. 1995).

370. It has often and clearly been held that any unauthorized use of a patented invention, without more, constitutes infringement. Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 484 (1964).

371. Brief of Plaintiff-Appellant, *supra* note 122, at 42.

The “direction or control” standard upsets the *quid pro quo* of the Constitution because an inventor claiming a method that contemplates the action of multiple entities obtains essentially nothing in exchange for his public disclosure.³⁷² He receives nothing because *BMC*’s “direction or control” limitation on infringement liability eradicates his exclusive right.³⁷³ Moreover, the heightened exposure to circumvention that method patents suffer makes judicial enforcement of divided patent claims increasingly risky.³⁷⁴ Thus, the intended balance between the right to exclude and public disclosure is thwarted by the “direction or control” standard.³⁷⁵

Importantly, the “direction or control” standard diminishes the patent system’s very function of fostering innovation, thereby chilling progress.³⁷⁶ In distorting or destroying a patentee’s right to enforce its patent, the patentee has essentially no right to exclude.³⁷⁷ Recall, however, that the patent system operates to foster innovation only because it offers inventors these exclusive rights and the economic benefits inherent to them.³⁷⁸ The impact of allowing *de facto* infringement of a process patent does not stop at chilling innovation for breakthrough patents; it also chills the incentive for improvement patents.³⁷⁹ Even Congress has recognized how doubt shadowing patent rights hinders the incentive to innovate.³⁸⁰ As the law stands presently,

372. In a 2009 FTC and DOJ hearing, Judge Newman of the Federal Circuit stated that this disclosure requirement is presently “as important as ever.” *Supra* note 72.

373. Brief of Plaintiff-Appellant, *supra* note 122, at 42.

374. *See* Lemley, *supra* note 171, at 279–80 (discussing litigation strategies for divided patent claims). The author states that:

Before filing suit, plaintiffs should carefully consider the risks of filing based solely on infringement of a divided patent claim. Because of the many problems inherent in proving infringement of such claims, every effort should be made to minimize reliance on them in litigation . . . Accordingly, counsel must advise clients carefully about these risks, while seeking to find other, non-divided claims on which to base a suit.

Id.

375. Brief of Plaintiff-Appellant, *supra* note 122, at 42.

376. *See supra* text accompanying note 56 (discussing the primary purpose of the patent laws).

377. Gerdelman, *supra* note 31, at 2012.

378. *See supra* notes 61–71 and accompanying text (illustrating that the patent system operates to foster innovation through providing economic incentives in a variety of ways).

379. Gerdelman, *supra* note 31, at 2012. Allowing *de facto* infringement of a process patent also weakens the incentives for manufacturers other than the patentee to “invent around” or improve upon a patent. If other manufacturers can perform a patented process, albeit in connection with another company, and thereby skirt infringement liability, the law does not push these other manufacturers to innovate and improve upon the patented process. *See supra* note 70 and accompanying text (discussing how the “inventing around” principle of the patent system fosters innovation by providing economic incentives).

380. Doubt surrounding patent law can hinder the incentive to innovate and to utilize the

it provides markedly less incentive to invent new processes and methods.

B. The Standard Is Harmful to Innovation in Light of the Business Realities of Modern Society

Failure to impose liability when the participation and combined action of multiple entities infringe a patented method poses particularly egregious harm to innovation in light of the business realities of modern society.³⁸¹ The harm to innovation is especially forthcoming in the booming technology, communication, and medical industries that are important to the United States economy.³⁸²

Today businesses must increasingly rely on patent protection; especially in technology related areas, companies rely on their patents as major assets.³⁸³ In today's world of globalization and commercialization, process claims that contemplate the action of multiple entities³⁸⁴ are increasingly common.³⁸⁵ Today, significant

patent system and thereby may have ramifications on the nation's economy as a whole. "Congress recognized this danger in 1982 when it created the CAFC, and it applies even more so today because of businesses' increased reliance on patent protection." Gerdelman, *supra* note 31, at 2014.

381. In the information age, intellectual property is taking its proper place as a valued asset on companies' balance sheets. Intellectual property increasingly forms a large part, if not the majority of an entity's value. Joby A. Hughes & Kate L. Birenbaum, *Insuring Intellectual Property Risks: Creative Solutions on the Cutting Edge*, in PROTECTING YOUR INTELLECTUAL PROPERTY ASSETS 1999, at 205 (PLI Patents, Copyrights, Trademarks, & Literary Prop. Course Handbook Series No. G0-0084, 1999). Today, businesses have increased their reliance on patent protection. Especially in technology-related areas, companies have come to rely on their patents as a major asset. IP/Tech Advisor, Patent Licensing: Another Way to Increase Return on Investment, GOODWINPROCTER, July 2001, <http://www.goodwinprocter.com/~media/78C8197B8CE44B479A12E6B54C0F1C38.ashx>.

382. "The nation's strong patent system has enabled us to be a world leader on innovation." Press statement of Jim Greenwood, President, Biotechnology Indus. Org., BIO Encourages Congress to Improve Patent System (Mar. 3, 2009), available at http://www.bio.org/news/pressreleases/newsitem.asp?id=2009_0303_01. Greenwood warned that weakening intellectual property protection would jeopardize that leadership. *Id.*; *Drug Industry Remains Concerned About Proposal to Revise Patent System*, 7 BNA PHARM. LAW & INDUS. REPORT 262 (Mar. 6, 2009).

383. Gerdelman, *supra* note 31, at 2014. The separate entities loophole also deprives process patent owners of potential licensing royalties available. IBM reportedly received \$1.6 billion in licensing royalties. Although an extreme example, this illustrates the high stakes for patent investment and utilization. *Id.*

384. These are also called "multi-user claims," "divided patent claims," or "distributed claims." Lemley, *supra* note 171, at 256. These claims exist where patents are infringed only by aggregating the conduct of more than one actor. *Id.*

385. *Id.* Patent law has been designed to deal with the circumstance of unified infringement by a single actor. But modern commerce is not limited by national boundaries or corporate forms. Patents written to cover modern technologies are attempting to bring the distributed acts of different users into the ambit of a territorial legal system that looks for a single infringer. Not

utility exists in having specialized independent entities carry out portions of a process: such processes can improve the efficiency, quality, and profit of any given process. These business realities increase the number of divided process patents.³⁸⁶ Additionally, these business realities also increase the incentive for entities to conduct their business accordingly by working jointly with others to practice—and thus infringe—a patented invention.

Breakthrough inventions crucial to many major industries contemplate the actions of multiple entities to carry out a process³⁸⁷ even if they do not expressly name the actors in the patent claims. This is especially true within the technology, communication,³⁸⁸ and medical industries.³⁸⁹ Further, divided process claims may simply be unavoidable³⁹⁰ due to the nature of modern technology³⁹¹ and business practices. For example, in the field of computer and internet technologies, patents for processes often must contemplate the actions of multiple entities, such as users, web servers, and entities supplying information or services.³⁹²

surprisingly, the effort to do so has created significant problems for patent cases. *Id.*

386. Divided claims generally arise in two different fact patterns: (1) a company/customer fact pattern where customers perform the final step of a patented process, and (2) a company/company fact pattern where distinct companies work together to perform a patented process. Gerdelman, *supra* note 31, at 2004.

387. *Muniauxion* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14.

388. In the telecommunications industry alone, many issued patents include method claims which call for steps such as “receiving” and “transmitting” and “displaying” data between remote locations owned and/or controlled by different entities. Indeed, any claim that requires a computer monitor or cell phone to be activated by a user, then controlled by a website operator or carrier also might now be unenforceable against infringers. See Amicus Brief of Production Resource Group LLC Supporting *en banc* Rehearing, *supra* note 166, at 1–6 (discussing method claims which call for the combined steps of independent entities).

389. The pharmaceutical and technology industries are particularly important because of the complexity of the state of the art. In these fields especially, the commercially valuable products and processes are often improvements upon prior patented inventions. Accordingly, the decreased protection for process patents resulting from *BMC* could chill innovation in such fields.

390. *Muniauxion* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14.

391. See U.S. Patent No. 6,721,703 (Mar. 2, 2001) (claiming a method of providing remote deposition services, and contemplating the actions of a court reporter, a deponent, an attorney, a web server, and an engineer). This invention filled a hole in technology because there existed a demand in modern legal practices to be able to interview and record witnesses remotely in real time.

392. For example, patents in the context of computer networks will be unable to avoid divided claims because of the inherent globality of computer networking. Also in this context, patented processes may involve some steps performed on the client side and others performed on the server side. Lemley, *supra* note 171, at 256. Software claims often must set forth limitations where multiple parties combine to infringe. Carter, *supra* note 311, at 831. Furthermore, the technology contemplated in such patents was not around during the passage of the 1952 Patent Act. In the *BMC* case itself, the business realities necessitated that several participants were

Without judicial recourse, the “direction or control” standard will render thousands of socially valuable³⁹³ and otherwise valid process patents unenforceable.³⁹⁴ For example, several process patents recently found to be valid and enforceable by the Federal Circuit could now easily be circumvented by a seller working with a joint venture partner or customer to whom the seller provides information.³⁹⁵ Nothing would prevent the growth of entire industries based on the manufacture and sale of products that partially practice a patented method. As long as neither purchasers nor manufacturers direct or control the other in its performance of the patented steps, such conduct would essentially be lawful even though in every case the patented method is fully practiced.³⁹⁶

A drastic repercussion of a patentee’s inability to enforce his patent rights is that he may be unable to recoup the research and development costs of the invention.³⁹⁷ This situation is highly likely, particularly in the context of drugs, because the fixed costs of research and development are very high.³⁹⁸ The marginal costs, however, are very

involved when a pin-less debit bill payment was processed, including the selected ATM network and the affiliated financial institutions that issued the debit card. Brief of Plaintiff-Appellant, *supra* note 122, at 44.

393. Innovations in the medical industry have undisputed social value; they cure diseases, treat sicknesses, and generally provide for the public good. However, under the “direction or control” standard, many of these patents will be rendered unenforceable. To illustrate, U.S. Patent No. 6,620,416 claims a method for treatment of HIV, and encompasses a process whereby a manufacturing lab creates the compound, the dosage is determined based upon the information provided by the patient, and a doctor administers the drug. This patent could be easily circumvented because the relationship between the laboratory and physician likely never reaches one of “direction or control” sufficient under *BMC*. Thus, an inventor granting an undeniable innovation to society would nevertheless be given nothing in exchange for his public disclosure. See *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14.

394. *Id.*

395. In *Pfizer, Inc. v. Teva Pharms USA, Inc.*, the Federal Circuit upheld a finding of infringement of a process for stabilizing an ACE inhibitor drug by contacting it with: (a) a suitable amount of an alkali, and (b) one or more saccharides. *Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 518 F.3d 1353, 1367 (Fed. Cir. 2008). Two enterprising manufacturers (or a manufacturer and a sophisticated customer) could coordinate to have one contact the drug with alkali and the other contact it with a saccharide, such that neither completed all steps in the patented method. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14–15. Similarly, Microsoft could easily have evaded the two-code method for software protection described in *z4 Techs., Inc. v. Microsoft Corp.*, by supplying its distributors with software and codes separately, if the distributors supplied the first authorization code with the software for retail. *Id.* at *14-15.

396. Brief of Plaintiff-Appellant, *supra* note 122, at 43–44.

397. Much drug research fails to generate products that recoup the cost of the research. LANDES & POSNER, *supra* note 28, at 315.

398. The high fixed research and development costs of drugs are due in large part to the strict regulatory requirements imposed by the Food and Drug Administration in order to ensure the

low, including the marginal costs to infringers.³⁹⁹ As such, competing infringers would prevent the patent owner from his rightful percentage of the market share,⁴⁰⁰ reducing his chances of recouping the expenses of research alone. An inventor who imparts a benefit on society could suffer losses, and in effect be penalized for investing in innovation.⁴⁰¹

As technology and innovation have adapted to the increased coordination of independent entities, so too must the patent laws. Where “it is unlikely in the terms of the realities of the business situation that any one person or company would itself perform all of the steps of the claim,” the courts should impose joint infringement liability.⁴⁰²

C. Proper Claim Drafting Is an Insufficient Fix

The Federal Circuit’s suggestion that unitary claim drafting would avoid the need to rely on joint infringement is naïve at best.⁴⁰³ Unitary claim drafting is impossible in some instances.⁴⁰⁴ And the possibility of avoiding divided infringement problems by redrafting claims is not reason to abandon settled principles.⁴⁰⁵

safety and efficacy of drugs. *Id.* at 314–15.

399. *Id.* at 297–302.

400. *See supra* notes 62–63 and accompanying text (illustrating how the patent owner obtains a large percentage of the market share as a benefit of his limited monopoly).

401. The purpose of tort liability is to compensate an injured plaintiff and to return him to his unaffected state before the injurious actions of the defendant. However, in the context of patent infringement this purpose takes on a double meaning, as a patentee does not merely wish to be returned to his unaffected state; rather, he was supposed to be granted an economic monopoly in exchange for public disclosure. Thus, a patent owner that is unable to enforce his exclusive rights is essentially injured twice: he has lost investments based on research and development of the patented invention, as well as the limited economic monopoly he was entitled to in exchange for his public disclosure.

402. *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, 187 U.S.P.Q. 323, 333 (N.D. Ill. 1974); *see also* Brief of Plaintiff-Appellant, *supra* note 122, at 62.

403. Brief of Plaintiff-Appellant, *supra* note 122, at 46. The Federal Circuit reasoned that the need to resort to joint infringement is simply the result of bad claim drafting, and can always be avoided by merely drafting method claims that focus on one entity and whether it supplies or receives in any given element. *Id.* at 45–46.

404. *See supra* note 392 and accompanying text (discussing situations in which drafting unitary claims would be impossible).

405. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14 n.4.

First, patent prosecution⁴⁰⁶ occurs well before patent litigation.⁴⁰⁷ Permitting infringers to escape liability and eradicating a patentee's right to exclude based on claim drafting essentially operates retroactively; the legal principle proscribing *ex post facto* laws is relevant in this situation.⁴⁰⁸ Patent practitioners cannot and should not be expected to forecast drastic departures in the standards constituting infringement.⁴⁰⁹ Further, in light of the inherently precursive nature of patent prosecution, the Federal Circuit's advice on better claiming is cold comfort for owners of the many thousands of already-issued patents.⁴¹⁰

Drafting claims from the perspective of a single actor to describe processes encompassing the actions of multiple participants results in indirect, passive, and confusing claims.⁴¹¹ This is inconsistent with the PTO's clear preference for straightforward and active voice drafting.⁴¹²

406. Patent prosecution is the process by which patent claims are drafted, and then submitted to the U.S.P.T.O. See DREYFUSS & KWALL, *supra* note 29 (discussing patent prosecution).

407. In fact, patent prosecution is the precursor to a patentee obtaining *any* rights from the government. Patent prosecution is the process of applying for a patent through the U.S.P.T.O. and negotiating with the patent examiner. BLACK'S LAW DICTIONARY 1258 (8th ed. 2004).

408. The Constitution proscribes *ex post facto* laws, or laws that apply retroactively, in order to align with the Constitutional requirement that an actor not be punished without notice. See *Smith v. Doe*, 538 U.S. 84 (2003) (discussing the *ex post facto* constitutional prohibitions); see also *Eldred v. Ashcroft*, 537 U.S. 186 (2003) (illustrating that the *ex post facto* provisions indeed apply in patent infringement actions). "The limits of a patent must be known for the protection of the patentee, the encouragement of inventive genius of others, and the assurance that the subject of the patent will be dedicated ultimately to the public." Brief of Amicus Curiae Intellectual Property Owners Association in Support of Petition for Panel Rehearing and Rehearing *En Banc* at 7, *Muniauction, Inc. v. Thomson Corp.*, 2008 WL 3992446 (Fed. Cir. Aug. 11, 2008) (No. 2007-1485) [hereinafter Brief of Amicus Curiae Intellectual Property Owners Association].

409. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14 n.4. Furthermore, putting the onus entirely on the claim drafter ignores the obvious moral hazard of encouraging gaming of the patent system. Brief of Amicus Curiae Intellectual Property Owners Association, *supra* note 408, at 5.

410. Brief of Amicus Curiae Intellectual Property Owners Association, *supra* note 408, at 5.

411. *Id.*

412. The Manual of Patent Examining Procedure (MPEP) articulates the laws and regulations that patent attorneys must follow in filing a patent application with the U.S.P.T.O. Chapter 11 of the MPEP states that a patent application must be accompanied by a specification as prescribed by section 112. UNITED STATES PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 112 (8th ed. 2008), available at <http://www.uspto.gov/web/offices/pac/mpep/index.htm>. In pertinent part, § 112 requires that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such *full, clear, concise, and exact terms* as to enable any person skilled in the art to which it pertains . . . to make and use the same . . .

. The specification shall conclude with one or more claims *particularly* pointing out and *distinctly* claiming the subject matter which the applicant regards as his invention.

35 U.S.C. § 112 (2006) (emphasis added). Therefore, during prosecution, patent attorneys are required to describe the invention in the most clear, concise, and distinct way possible.

Unitary claim drafting may also be incompatible with the rule that a patent claim is invalid if it is indefinite⁴¹³ because such claims could enlarge the patent's scope beyond its lawful bounds by imposing legal risks on competitors.⁴¹⁴ A close application of *BMC* would improperly transform patent drafting into an exercise in semantic gymnastics.⁴¹⁵ Instead, claims should be drafted to fulfill the purposes of public dissemination and enablement.⁴¹⁶

While it may be possible to draft claims that focus on a single entity, once the claims are issued they are set in stone as a defined series of steps.⁴¹⁷ However, an infringement analysis does not stop at the claims—it looks to the elements encompassed in each claim to determine whether the defendant has practiced every element of the method.⁴¹⁸ As such, even if patent claims are “properly”⁴¹⁹ drafted to focus on one particular entity, it will almost always be possible to subdivide the performance of the claimed steps between several entities when the actions of multiple entities are contemplated and inherent to the process.⁴²⁰ Without liability for joint infringement, every method patent owner's claims are easily circumvented by the divided performance loophole, no matter how carefully the patent claims may be drafted to cover a single entity.⁴²¹

D. Subsequent Cases Further Expanded the “Direction or Control”

413. Claims that are indefinite are invalid. 35 U.S.C. § 112 (2006). See *Geneva Pharm., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1384 (Fed. Cir. 2003) (holding a claim invalid for indefiniteness because it did not *clearly* disclose the scope of the invention).

414. Indefinite claims would impose legal risks on competitors, who would essentially be “buying an infringement suit” if they mistook the bounds of a patent because the patent claim was unclear. Thus, by requiring clear claims, Congress sought to increase competition and innovation through “inventing around.” See LANDES & POSNER, *supra* note 28, at 324 (discussing how patent applications economize on description through claims).

415. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 14 n.4.

416. Section 112 of the Patent Act requires that an invention be described as to enable a person of ordinary skill in the art to make or use the invention. 35 U.S.C. § 112 (2006).

417. Brief of Plaintiff-Appellant, *supra* note 122, at 46.

418. *Prouty v. Draper, Ruggles & Co.*, 41 U.S. 336, 340 (1842) (setting forth the “all elements” rule).

419. The drafting technique is described as such only in light of the Federal Circuit's statement that “[t]he concerns over a party avoiding infringement by arms-length cooperation can usually be offset by *proper* claim drafting.” *BMC Res., Inc. v. Paymentech, L.P. (BMC II)*, 498 F.3d 1373, 1381 (Fed. Cir. 2007) (emphasis added).

420. See *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1317–18 (Fed. Cir. 2005) (distinguishing between a claimed method and a claimed system, in that a method claim is necessarily formed of individual steps (elements), and implying that each step is performed somewhat in isolation).

421. Brief of Plaintiff-Appellant, *supra* note 122, at 46.

Standard

While the *BMC* opinion implied the requirement of an agency relationship between entities whose combined action infringed a patent, it never expressly held as such.⁴²² However, subsequent cases have construed *BMC* as indeed requiring an agency relationship; thus, these cases have specifically stated that joint infringement may only be found where an actor has another party perform steps “on its behalf”⁴²³ such that the relationship rises to the level of vicarious liability.⁴²⁴ Therefore, even if the *BMC* court did not intend to require agency between entities, it nevertheless set in motion the essential breakdown of patentee’s rights.

In *Muniauction Inc. v. Thomson Corp.*, the Federal Circuit heard a case addressing infringement of a method for conducting municipal bond auctions over an electronic network.⁴²⁵ The court found that the auctioneer⁴²⁶ indeed controlled access to its system and instructed bidders on its use, yet held this was nonetheless insufficient to incur liability for direct infringement.⁴²⁷ The court construed *BMC*’s “direction or control” requirement as equivalent to traditional legal principles of establishing vicarious liability.⁴²⁸ Further, because the

422. See *supra* note 244 and accompanying text (discussing how the *BMC* court inferred an agency relationship requirement between entities whose combined actions infringed a patent).

423. In *Muniauction, Inc. v. Thomson Corp.*, the court reasoned that because the defendant did not have “another party perform steps on its behalf . . . [i]t does not infringe the asserted claims as a matter of law.” *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008).

424. “[W]here the relationship between the alleged direct infringer and the third party who completes performance of the claimed method rises to the level of vicarious liability, direct infringement can be found.” *Global Patent Holdings, LLC v. Panthers BRHC LLC*, 586 F. Supp. 2d 1331, 1335 (S.D. Fla. 2008), *aff’d* 318 Fed. App’x 908 (Fed. Cir. 2009).

425. *Muniauction*, 532 F.3d at 1321. The municipal bond auctions operate as follows: the municipality issuers offer its bonds to underwriters (“bidders”). *Id.* The bidders here will typically bid on the entire bond offering and thereafter re-sell the individual bonds to the public. *Id.* at 1322. A bidder submits a price and a related interest rate represented by a coupon for each of the bonds differentiated by a respective maturity date. *Id.* The best bid is then determined according to the true interest cost to the issuer based on the blended rates for each package of the aggregated submissions made by the bidder. *Id.* Thus, the claimed method embraces inputting data from a bidder; automatically computing an interest cost value; submitting the resulting bid over an electronic network; communicating the bid to the issuer’s computer; and displaying the bid on the issuer’s computer. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 3. The auctioneer’s central server controls all steps required for a municipal bond auction, interfacing with web browsers used by sellers and bidders. *Id.*

426. The auctioneer was Thomson, the defendant in the matter. *Muniauction*, 532 F.3d at 1323. The issue presented was whether the action of the defendant auctioneer and the bidders could be combined under the law so as to give rise to a finding of direct infringement by the auctioneer. *Id.* at 1329.

427. *Id.* at 1330.

428. First, the Federal Circuit applied the *BMC* standard and language in stating that “[u]nder

auctioneer did not have another party perform the other steps “on its behalf,” liability did not attach.⁴²⁹

With deeper analysis, a subsequent district court decision similarly construed *BMC*’s holding to require an agency relationship where multiple entities jointly infringe a patent.⁴³⁰ In *Global Patent Holdings LLC v. Panthers BRHC LLC*, the claimed method was a Remote Query Communication System,⁴³¹ which contemplated the action of both website owners⁴³² and users.⁴³³ The defendant’s website supplied website users with the programs and material with which users could complete the remaining steps of the process.⁴³⁴ The patented process could not begin until the user visited the defendant’s website.⁴³⁵ The court noted that *BMC* “did not explain with any specificity what it meant by ‘direction or control.’”⁴³⁶ However, the court accepted the *Muniauction* determination that the standard would be satisfied where the law would traditionally hold the accused infringer vicariously liable for the completing party.⁴³⁷ The court interpreted *Muniauction* as merely affirming or clarifying *BMC*, rather than heightening its standard.⁴³⁸ The court concluded that a third party must perform the steps of the patented process by virtue of a contractual obligation or

BMC Resources then, the issue of infringement in this case turns on 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.” *Id.* at 1329. However, in its analysis the Federal Circuit then stated “[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.” *Id.* at 1330.

429. *Id.* at 1330.

430. *Global Patent Holdings, LLC v. Panthers BRHC LLC*, 586 F. Supp. 2d 1331 (S.D. Fla. 2008).

431. The claimed method encompassed downloading responsive data from a remote server, comprising five enumerated steps. While the defendant website owners did not perform these steps, the plaintiff alleged that it sufficiently controlled home users. *Id.* at 1333.

432. The website owner was the named defendant in this matter. *Id.*

433. The infringement takes place through the joint action of both Defendant and the website user. *Id.*

434. The plaintiff alleged that the first step of the patent was controlled by the defendant, even though it was executed by a remote user’s computer, because the user’s computer runs the programs and material that were supplied to the user by the defendant’s website. *Id.*

435. *Id.* at 1335.

436. *Id.* at 1334.

437. *Id.*

438. Citing the *Muniauction* court’s analysis of *BMC*, the court reasoned that *Muniauction* merely “reaffirmed the principle that where the relationship between the alleged direct infringer and the third party who completes performance of the claimed method rises to the level of vicarious liability, direct infringement can be found.” *Id.* Therefore, *Global Patent Holdings* reasoned that *BMC* must have intended to require an agency relationship, and that *Muniauction* did not constitute a drastic departure therefrom. *Id.* at 1335.

other relationship that gives rise to vicarious liability to support a finding of “direction or control.”⁴³⁹ Importantly, the court did not merely determine that an agency relationship would be sufficient for a finding of joint liability—an agency relationship was necessary for and dispositive of infringement liability.⁴⁴⁰

The express requirement of an agency relationship between actors whose combined actions infringe a patent eviscerates the rights of patentees with divided process claims.⁴⁴¹ Not only is this requirement dangerous to this specific group of patent owners, it is dangerous to the integrity of the patent system itself.⁴⁴² By embracing agency as a predicate for joint infringement, the unreasonably high standard that a patent owner must reach is, in many circumstances, very likely unachievable.⁴⁴³ This standard is unattainable in most instances because, while defendants may be vicariously liable for actions of employees and agents,⁴⁴⁴ under traditional agency principles a party can never be vicariously liable for customers or joint venture partners.⁴⁴⁵ In effect, an agency requirement defines a safe harbor for willful infringement of process patents.⁴⁴⁶ For all of the reasons that *BMC*'s requirement of “direction or control” will have a devastating impact on the patent system,⁴⁴⁷ an agency requirement will multiply this impact substantially.⁴⁴⁸ Even if *BMC* did not intend to demand an agency relationship between joint tortfeasors, it set into motion a precedent, the

439. *Id.*

440. “Without this kind of relationship, the Court does not believe that a finding of ‘joint infringement’ is warranted under *BMC Resources*.” *Id.*

441. “If the decision is allowed to stand, every patentee with a multi-participant proprietary process will be vulnerable to potential infringers who contract out steps of a patented process by teaching, instructing, or otherwise directing third parties’ complementary actions.” Brief of Amicus Curiae Intellectual Property Owners Association, *supra* note 408, at 4–5.

442. *Id.* at 4.

443. See Amicus Brief of Production Resource Group LLC Supporting *en banc* Rehearing, *supra* note 266, at 4 (discussing how the requirement of a formal agency relationship is a likely unachievable legal standard).

444. A principal is subject to vicarious liability to a third party harmed by an agent’s conduct when the agent is an employee who commits a tort while acting within the scope of employment, or the agent commits a tort when acting with apparent authority in dealing with a third party or purportedly on behalf of the principal. RESTATEMENT (THIRD) OF AGENCY § 7.03(2) (2006).

445. *Muniauction* Petition for *en banc* Rehearing of Plaintiff-Appellee, *supra* note 358, at 5.

446. Brief of Amicus Curiae Intellectual Property Owners Association, *supra* note 408, at 5.

447. See *supra* Part V.A (discussing how the “direction or control” standard leaves a glaring loophole in patent law which is inconsistent with patent policy and business realities of modern society).

448. The agency standard will exacerbate the loss of rights suffered by patent owners, as it is a much higher standard and thus more difficult to prove. See *supra* note 443 (arguing that an agency standard will be unattainable by a process patent owner in most instances).

debilitating ramifications of which will echo through the patent system contemplated by the very founders of our country.⁴⁴⁹

VI. CONCLUSION

The *BMC* holding requiring a plaintiff to prove that an infringer “directs or controls” the other entities who jointly infringe a patented process amounts to a failure on the part of the Federal Circuit to protect and enforce the rights of patent owners. The United States Constitution, Congress, and the judicial system have long recognized the importance of protecting the patent rights of inventors in order to foster innovation. Similarly, the great weight of precedent supports imposing liability when the participation and combined action of multiple entities infringe a patented process.

The *BMC* court erred in reasoning that a “direction or control” standard was necessary. As a result of this erroneous conclusion, the “direction or control” standard has left a loophole in patent law that diminishes, and in some cases completely destroys, the exclusive rights of process patent owners. Patented methods that contemplate the action of multiple entities are easily circumvented, and judicial enforcement of these patents is now uncertain at best. The patent system must return to the *quid pro quo* contemplated and carefully crafted by the Framers by granting inventors a meaningful right in exchange for their contribution to society. Accordingly, joint infringement liability should be imposed where the participation and combined action of entities infringes a patent.

449. See *supra* Part II.B (discussing the Framers’ intent to provide an inventor with an exclusive right to exclude).