

# FINDING VICARIOUS LIABILITY IN U.S. PATENT LAW: THE “CONTROL OR DIRECTION” STANDARD FOR JOINT INFRINGEMENT

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The Patent Act is designed to address infringement claims that are primarily based on the actions of a single actor. The traditional rule in patent law has been that one must practice every limitation of a method or a process claim to infringe it.<sup>1</sup> For example, if a patent claims a method of performing multiple steps and no single party performs each step of the patented invention (even though multiple parties, collectively, might perform all of the steps), then the patent statutes provide no clear guidance as to whether any or all of the actors can be found liable. These patents, where infringement can only be found by combining the conduct of more than one actor, commonly called “joint” or “divided”<sup>2</sup> infringement, create significant problems for courts. Rather than referring to liability of more than one infringer, the term “joint infringement” refers to situations where one party is liable for infringement of a multiple step claim that is infringed upon by multiple parties, each performing different steps. The viability and scope of that theory of liability has been the subject of considerable debate.<sup>3</sup> In the field of computer networking and e-commerce, where a patented process may involve several parties interacting by operating

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1. 35 U.S.C. § 271 (2006). § 271 requires an accused infringer to perform each and every element of the patent claim to be liable under § 271(a).

2. Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255 (2005).

3. See Kristin E. Gerdelman, *Subsequent Performance of Process Steps by Different Entities: Time to Close Another Loophole in U.S. Patent Law*, 53 EMORY L.J. 1987 (2004); Lemley, *supra* note 2; Long Truong, *After BMC Resources, Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, 103 NW. U. L. REV. (forthcoming 2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1121947](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1121947) (last visited Feb. 1, 2009); Sriranga Veeraraghavan, *Joint Infringement of Patent Claims: Advice for Patentees*, 23 SANTA CLARA COMPUTER & HIGH TECH L.J. 211 (2006); Harold C. Wegner, *E-Business Patent Infringement: Quest for a Direct Infringement Claim Model* (Nov. 21, 2001), available at [http://www.softic.or.jp/symposium/open\\_materials/10th/en/wegner-en.pdf](http://www.softic.or.jp/symposium/open_materials/10th/en/wegner-en.pdf) (prepared for the SOFTIC 2001 Symposium).

different computers, the question of who directly infringes when separate, independent actors perform some, but not all, steps of the claimed method has become an increasingly important enforcement issue.

The standard for finding direct infringement of a multi-step method or process patent claim under 35 U.S.C. § 271(a) where no single entity performs each and every step of the claim has been extensively debated for years. Although there is no statutory prohibition on joint infringement in 35 U.S.C. § 271, courts struggled with its application in these types of cases. In *BMC Resources, Inc. v. Paymentech, L.P.*<sup>4</sup> and *Muniauction, Inc. v. Thomson Corp.*,<sup>5</sup> the Federal Circuit, for the first time, determined the standard under which joint infringement would be a viable cause of action. Under this standard, when an accused infringer performs some, but not all, of the steps of a patented method and other parties perform the remaining steps, the patent owner can establish infringement only if the other parties operated under the “control or direction” of the accused infringer (the “mastermind”).<sup>6</sup> Consequently, a patentee whose claim depends on the combined actions of multiple actors faces a high burden of proof to establish joint infringement of method claims.

Part I of this Note traces the statutory and jurisprudential development of joint infringement. After introducing the concept of direct and indirect patent infringement, this Note examines the various court-developed joint infringement theories.

Part II summarizes the *BMC* and *Muniauction* cases. In Part III, this Note summarizes district court decisions after *BMC* and *Muniauction* that explore the necessary amount of “control or direction” between the parties who perform the method claim steps.

In Part IV, this Note argues that the Federal Circuit’s decision in *Muniauction* was incorrect, and that it makes the parameters of the “control or direct” standard set forth in *BMC* unclear. This Note proposes that the court adopt a new vicarious liability test. The new test should provide a clear standard for determining whether the amount of control or direction exercised by an accused direct infringer over another party is sufficient to hold the accused infringer liable for joint infringement. This Note concludes with an overview of patent prosecution strategies that deal with the joint infringement standards set forth in *BMC* and *Muniauction*.

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4. 498 F.3d 1373 (Fed. Cir. 2007).

5. 532 F.3d 1318 (Fed. Cir. 2008), *cert. denied*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009).

6. *See BMC*, 498 F.3d 1373; *Muniauction*, 532 F.3d 1318.

## I. JUDICIAL DEVELOPMENT

Patent infringement is normally divided into two categories: direct and indirect. Direct infringement requires that a party perform each and every step or element of a claimed method or process. Indirect infringement is found when a defendant participates in or encourages infringement, but does not directly infringe the patent. Indirect infringement requires a finding of direct infringement by at least one party.

### A. Direct Infringement

Section 271(a) imposes liability on “whoever without authority makes, uses, offers to sell or sells any patented invention. . . .” Generally, in order to infringe a patent, the infringer must perform every element of the claimed invention.<sup>7</sup> In the case of an invention consisting of a process or method, a patent infringer must perform every step of the patented process.<sup>8</sup> Direct infringement is a strict-liability offense; a patent holder need not prove that an accused infringer knew of the patent or the infringement in order to prevail.<sup>9</sup>

### B. Indirect Infringement

There are two types of indirect infringement: (1) active inducement and (2) contributory infringement.<sup>10</sup> 35 U.S.C. § 271(b) states that, “whoever actively induces infringement of a patent shall be liable as an infringer.” To prove active inducement, the patentee must demonstrate that the accused indirect infringer knew or should have known the act would induce actual infringement.<sup>11</sup> To prove contributory infringement, a patentee must show: (1) the accused indirect infringer sold or supplied a component of the claimed invention, (2) the component was material to the patented invention, (3) the alleged infringer knew that the component was especially made or especially adapted for use in the infringing process, (4) the component is not a staple or commodity article, and (5) the component was actually used to infringe the patent at issue.<sup>12</sup>

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7. Joy Tech., Inc. v. Flakt, Inc., 6 F.3d 770, 773 (Fed. Cir. 1993).

8. Hutchins v. Zoll Med. Corp., 492 F.3d 1377, 1380 (Fed. Cir. 2007).

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

10. See 35 U.S.C. § 271(b-c) (2006).

11. See *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1303 (Fed. Cir. 2006) (“[T]he requirement that the alleged infringer knew or should have known his actions would induce actual infringement *necessarily includes the requirement that he or she knew of the patent.*”) (emphasis added).

12. 35 U.S.C. § 271(c). For parts relevant to patented processes:  
within the United States . . . a material or apparatus for use in practicing  
a patented process, constituting a material part of the invention, know-

Generally, indirect infringement is harder for the patent holder to prove, because both types of indirect infringement require proving the existence of underlying direct infringement.<sup>13</sup> Additionally, both types of indirect infringement require a showing that the accused indirect infringer had some level of knowledge of the patent.<sup>14</sup>

### C. Pre-BMC Joint Infringement

The “all elements rule” and the requirement of proving direct infringement in both direct and indirect infringement cases create a loophole in joint infringement situations where no single party performs every step. One commentator noted that there are two fact patterns to this potential loophole: (1) where a company performs all but the last of the patented steps and the customers then perform the last step (Company/Customer Fact Pattern), and (2) where a selling company performs some of the patented steps and the buyer company performs the remaining steps (Company/Company Fact Pattern).<sup>15</sup> The Federal Circuit largely remained silent until discussing joint infringement in its *On Demand Machine Corp. v. Ingram Industries, Inc.*<sup>16</sup> decision, followed by its *BMC Resources* decision.<sup>17</sup>

#### 1. General Rule of No Infringement

Courts traditionally ruled against claims of joint infringement when one party performed only some steps of a claim and a second party performed the remaining steps.<sup>18</sup> Exceptions to this general rule were often

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ing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use, shall be liable as a contributory infringer.

*Id.*

13. See *DSU Med. Corp.*, 471 F.3d at 1303 (“[T]he patentee always has the burden to show direct infringement for each instance of indirect infringement.”) (citing *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263 (Fed. Cir. 2004)).

14. See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488-91 (1964) (holding that contributory infringement requires knowledge that the combination for which a component was especially designed was both patented and infringing); *DSU Med. Corp.*, 471 F.3d at 1304 (en banc in relevant part) (holding that inducement of infringement requires knowledge of the patent).

15. Gerdelman, *supra* note 3, at 2004.

16. 442 F.3d 1331 (Fed. Cir. 2006).

17. *BMC*, 498 F.3d at 1378.

18. See, e.g., *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565 (Fed. Cir. 1985); *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293 (Fed. Cir. 2005). In 1974, the Ninth Circuit expressed doubts on whether these multi-actor method claims would ever be infringed when one does not control the other’s activities. Mobil

limited to situations in which one party performing a subset of the steps of the claim did so as an agent of the principal party. Usually, if one party practices less than all of the steps or elements of a claim, then there is only partial performance of the patented invention or process, and therefore no direct infringement. In *Fromson v. Advance Offset Plate, Inc.*, for example, the holder of a process patent for making photographic printing plates sued a company that performed several steps in the process and then sold the resulting product to customers who performed the remaining steps.<sup>19</sup> The Federal Circuit held that “because Advance’s customers, not Advance, [performed the remaining steps of the patented process], Advance cannot be liable for direct infringement with respect to those plates.”<sup>20</sup> The court suggested, however, that Advance could be liable for contributory infringement.<sup>21</sup> Yet, the court did not address how contributory infringement could be found, despite the lack of underlying direct infringement.

Similarly, in *Cross Medical Products v. Medtronic Sofamor Danek*, the court rejected the patentees’ efforts to combine the acts of surgeons with those of a medical device manufacturer for the purpose of establishing a direct infringement of an apparatus claim.<sup>22</sup> The court found that a medical device manufacturer did not infringe even though its personnel appeared in an operating room with surgeons and identified instruments for the surgeons to assemble. The court ruled against infringement because the manufacturer’s personnel did not direct the surgeons’ actions in assembling the claimed apparatus.<sup>23</sup>

## 2. Agency Theory

A few courts have imposed liability for direct infringement where a person acts as an agent of the infringer, in effect aggregating the conduct of defendants acting in concert for liability purposes.<sup>24</sup> In *Crowell v. Bak-*

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*Oil Corp. v. Filtrol Corp.*, 501 F.2d 282, 291-92 (9th Cir. 1974) (“We question whether a method claim can be infringed when two separate entities perform different operations and neither has control of the other’s activities.”).

19. *Fromson*, 720 F.2d 1565.

20. *Id.* at 1568.

21. *Id.*; see also, *Engate, Inc. v. Esquire Deposition Servs., LLC*, No. 01-C 6204, 2003 WL 22117805, at \*3 (N.D. Ill. Sept. 10, 2003) (questioning “joint tortfeasor” theory and limiting it to contributory, not direct infringement).

22. *Cross Med. Prods.*, 424 F.3d 1293.

23. *Id.* at 1311 (“[I]f anyone makes the claimed apparatus, it is the surgeons, who are, as far as we can tell, not agents of Medtronic. Because Medtronic does not itself make an apparatus with the ‘interface’ portion in contact with bone, Medtronic does not directly infringe.”).

24. See *Mobil Oil Corp. v. W.R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973); see also *E.I. DuPont De Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 735

*er Oil Tools*,<sup>25</sup> for instance, the Ninth Circuit stated that “[i]t is obvious that one may infringe a patent if he employ[s] an agent for that purpose or ha[s] the offending articles manufactured for him by an independent contractor.”<sup>26</sup> Another example can be found in *Mobil Oil Corp. v. W.R. Grace & Co.*, where the patent claimed a method for preparation of a hydrocarbon conversion catalyst.<sup>27</sup> The defendant performed all of the steps of the claimed method except for the heating step, which was intended to be completed by its customers.<sup>28</sup> Although there was no control or direction by the defendants, the district court ruled that the “defendant, in effect, made each of its customers its agents in completing the infringement step, knowing full well that the infringement step would in fact be promptly and fully completed by those customers.”<sup>29</sup> In these cases, the courts have imposed liability on the alleged infringers by holding that their business partners and customers acted as their agents.

### 3. “Some Connection” Theory

Some courts have adopted another theory of joint infringement where proof of a sufficient connection between alleged joint infringers exists. Under this view a defendant may be liable for direct infringement, despite not practicing all steps of the patented method, when: (1) the steps of the patented method are performed, and (2) the defendant has sufficient connection to, or control over, the entity or entities performing the remaining steps.<sup>30</sup> For example, in *Faroudja Laboratories, Inc. v. Dwin Electronics*,

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(D. Del. 1995) (“[A person] cannot avoid liability for infringement of [a] process patent by paying [another] to practice step (a) of the patented process for it.”); *Hill v. Amazon.com, Inc.*, No. Civ.A.2:02-CV-186, 2006 WL 151911 (E.D. Tex. Jan. 19, 2006) (“Proof of an agency relationship or concerted activity would be sufficient to impose liability in circumstances where one party does not perform all the steps of the claimed method.”). *But see* Lemley, *supra* note 2, at 256 (noting that this is more the exception than the rule).

25. 143 F.2d 1003 (9th Cir. 1944).

26. *Id.* at 1004.

27. *Mobil Oil Corp.*, 367 F. Supp. at 253.

28. *Id.*

29. *Id.*

30. *See, e.g.*, *Marley Mouldings Ltd. v. Mikron Indus., Inc.*, No. 02C 2855, 2003 U.S. Dist. LEXIS 7211, at \*9-10 (N.D. Ill. Apr. 29, 2003) (denying motion for summary judgment of non-infringement where two entities collectively performed a patented process); *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980), *aff'd*, 667 F.2d 1232 (5th Cir. 1982) (finding defendants liable for infringement of a patent that claimed a method of preparing an offshore oil rig based on the combined actions of two entities who assisted one another at the same location to perform the method by adopting the “participation and combined action” standard); *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, 187 U.S.P.Q. 323, 335 (N.D. Ill. 1974) (finding defendant liable for direct in-

*Inc.*, the patent claimed a four-step method for converting film frames to television signals and then doubling the number of scan lines.<sup>31</sup> The defendants manufactured and sold “line doublers” that performed the remaining last three steps of Faroudja’s patent.<sup>32</sup> Television studios performed the first step of the method, “transferring each film frame to a television signal.”<sup>33</sup> Defendant’s customers, who connected the line doublers to their televisions, doubled the number of scan lines, thereby completing the last three steps of the method.<sup>34</sup> After reviewing prior decisions by other courts, the court suggested that joint infringement required a showing of “some connection between the different entities.”<sup>35</sup> The court also suggested that “some connection” could be shown where the entities “worked in concert . . . to complete the process” or were in “direct contact.”<sup>36</sup> In this case, however, the court concluded that there was no direct infringement because Faroudja could not prove a *sufficient* connection between the television studios and the customers.<sup>37</sup> The court held that the only connection between the entities was a copyright license, which was not enough to support a finding of joint infringement.

Several courts adopted the *Faroudja* standard. In *Condis Corp. v. Medtronic AVE, Inc.*, a district court in Delaware found a sufficient connection between the defendant, a medical device corporation that produced stents, and the physicians that used the stents, despite the defendant’s urgings to adopt the “work in concert” standard.<sup>38</sup> Similarly, in *Marley Mouldings Ltd. v. Mikron Industries*, the court found “some type of connection” resulting in infringement where a company first custom-ordered materials prepared by another company using the first step of a claim, then performed the remaining steps of the claim itself.<sup>39</sup> Conversely, in *Classen*

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fringement where it instructed its advertising agency to perform certain steps of the patented process); *Metal Film Co. v. Melton Corp.*, 316 F. Supp. 96, 110 (S.D.N.Y. 1970) (finding defendant liable for direct infringement because it hired a third party to perform the first step of the patented method); *Hill*, 2006 WL 151911, at \*2 (denying motion for summary judgment of non-infringement where a vendor “directed” its customers to perform the remaining step of the patented method ).

31. No. 97-20010 SW, 1999 WL 111788, at \*1 (N.D. Cal, Feb. 24, 1999).

32. *Id.* at \*2.

33. *Id.* at \*1.

34. *Id.*

35. *Id.* at \*5.

36. *Id.* at \*6.

37. *Id.*

38. 194 F. Supp. 2d. 323, 350 (D. Del. 2002).

39. No. 02C 2855, 2003 U.S. Dist. LEXIS 7211 (N.D. Ill. Apr. 29, 2003). *See also* *Applied Interact, LLC v. Vt. Teddy Bear Co.*, No. 04 Civ. 8713(HB), 2005 U.S. Dist. LEXIS 19070 (S.D.N.Y. Sept. 6, 2005), regarding a method comprising the steps of pro-

*Immunotherapies, Inc. v. King Pharmaceuticals, Inc.*, the court, applying the “some connection” standard, found non-infringement, despite the presence of a contract for sale between the two entities that required an ongoing royalty payment.<sup>40</sup>

The court in *Hill v. Amazon.com* analyzed the “some connection” theory in depth.<sup>41</sup> The court held that a website retailer infringed a patent method involving a main computer and a remote computer where the remote computer was operated by a customer. The court stated “a showing of ‘agency’ or ‘working in concert’ is not necessarily required” in order to establish a sufficient connection between the defendant and the third party or parties performing the steps of the patented method.<sup>42</sup> Instead, the court held that “some connection between the parties is required to make out a case of direct infringement of a method claim when one party does not perform all of the steps of the method.”<sup>43</sup> When evaluating whether a defendant has sufficient connection to, or control over, the entity or entities performing part of the patented method, courts looked to the inventions claimed in the patent and the relationships described therein.<sup>44</sup> In determining whether there was sufficient connection or control, courts could consider whether the patent described the relationship between the allegedly infringing parties.<sup>45</sup>

#### 4. *Dictum in On Demand*

In *On Demand Machine Corp. v. Ingram Industries, Inc.*, the Federal Circuit seemed to suggest approval of the joint infringement doctrine, where combined actions of multiple parties may infringe a patent.<sup>46</sup> The patent at issue claimed a method of: (1) storing on a computer the text of a book, book reviews, and best seller information; (2) providing a means for a customer to review the information; (3) commanding a computer to print the text of the book in response to a customer’s selection; and (4) binding

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viding individuals access to coupons, dispensing the coupons, cashing in the coupons, and organizing the success of the coupon program. The court denied the defendant’s motion for summary judgment for non-infringement where the two entities hosted a website that provided coupons to users of the website. The court stated that there was “some connection” because when users of the website searched for and printed the coupons, they did so “according to the instructions on [the host’s] website.”

40. 403 F. Supp. 2d 451 (D. Md. 2005).

41. No. Civ.A.2:02-CV-186, 2006 WL 151911 (E.D. Tex. Jan. 19, 2006).

42. *Id.* at \*2 (stating that the “agency” theory was a mere subset of the “some connection” theory).

43. *Id.*

44. *Id.*

45. *Id.* at \*3.

46. 442 F.3d 1331 (Fed. Cir. 2006).



the pages together with a cover.<sup>47</sup> The plaintiff argued that Amazon.com and the book printer were jointly liable for patent infringement because the actions of Amazon, by providing information on the Internet, and the printer, by printing the book ordered by the Amazon.com customer, combined to infringe the claim.<sup>48</sup> The jury returned a finding of infringement in response to the following instruction:

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.<sup>49</sup>

The Federal Circuit reversed the district court's claim construction, necessarily reversing the infringement verdict. But the court acknowledged there was "no flaw in this [jury] instruction [on joint infringement] as a statement of law."<sup>50</sup> It seemed as if the Federal Circuit replaced years of precedent with a much looser standard of mere "participation and combined action."

## II. TOWARD A NEW STANDARD FOR JOINT INFRINGEMENT LIABILITY: *BMC* AND *MUNIAUCTION*

In *BMC Resources, Inc. v. Paymentech, L.P.*<sup>51</sup> and *Muniauction, Inc. v. Thomson Corp.*,<sup>52</sup> the Federal Circuit took a step towards clarifying the standard for joint infringement. Under this standard, when an accused infringer performs some, but not all, of the steps of a patented method, while other parties perform the remaining steps, the patent owner can establish infringement only if the other parties operated under the control or direction of the accused infringer (the mastermind).<sup>53</sup>

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47. *Id.* at 1334.

48. *Id.* at 1344.

49. *Id.* at 1344-45.

50. *Id.* at 1335.

51. 498 F.3d 1373 (Fed. Cir. 2007).

52. 532 F.3d 1318 (Fed. Cir. 2008), *cert. denied*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009).

53. *See id.*; *BMC*, 498 F.3d 1373.

## A. The *BMC* Case

### 1. *Facts and Procedural History*

In *BMC*, BMC Resources (BMC) brought an infringement suit against Paymentech based on two method patents for processing debit transactions over a telephone line without a personal identification number.<sup>54</sup> The methods required, among other things, prompting a customer who calls a merchant (or the merchant's agent) to enter certain payment information, having a financial institution verify the availability of credit or funds, and, if sufficient funds existed, charging the credit or debit card account and reflecting the payment in the relevant billing account.<sup>55</sup> The claims expressly required the combined actions of at least four different actors—a payee's agent, a remote payment network, the card-issuing financial institution, and a caller—to perform the various steps of the claimed invention for infringement to occur.<sup>56</sup>

Paymentech, who acted as the merchant's agent by collecting payment information from the customer and forwarding it to a debit network, moved for summary judgment. The district court granted summary judgment of non-infringement based on the fact that Paymentech did not perform all steps of the claimed method, and that there was insufficient connection between it and the other actors to trigger joint liability under § 271(a).<sup>57</sup> A magistrate judge recommended granting Paymentech's motion because Paymentech's process only performed one of the four steps of the patented method.<sup>58</sup> The district court agreed with Paymentech that the Federal Circuit's statement in *On Demand*—that there was no flaw in the jury instruction on joint infringement—was dicta.<sup>59</sup> The district court noted that, in *On Demand*, the Federal Circuit had not considered the relationship between the parties who purportedly performed the steps of the claimed invention, because their actions otherwise did not amount to infringement.<sup>60</sup> Therefore, approval of the jury instruction was not directly necessary to its decision in *On Demand*.<sup>61</sup> The district court agreed that BMC must prove that Paymentech directed or controlled the actions of the

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54. *BMC*, 498 F.3d at 1377.

55. *Id.*

56. *See id.* at 1375, 1377.

57. *See BMC Res., Inc. v. Paymentech, L.P.*, No. 3:03-CV-1927-M, 2006 U.S. Dist. LEXIS 37746 (N.D. Tex. May 24, 2006).

58. *Id.* at \*12-13.

59. *Id.* at \*11 n.3.

60. *Id.*

61. *Id.*

other entities performing the steps of the process patent.<sup>62</sup> The district court also stated that Paymentech did not jointly infringe the method claim because there was not even “some connection” between Paymentech and the other parties.<sup>63</sup> Because there was no evidence of Paymentech’s control over the other parties, the district court granted Paymentech’s motion.<sup>64</sup> Insistent that the “control or direct” standard is too demanding, and that it is also inconsistent with *On Demand*, BMC appealed.<sup>65</sup>

## 2. *The Federal Circuit’s Analysis*

On September 20, 2007, the Federal Circuit affirmed the district court judgment that Paymentech did not infringe.<sup>66</sup> First, the court noted that an accused infringer must perform each and every element of the patent claim to be liable under § 271(a).<sup>67</sup> Nevertheless, citing fairness concerns, the court further stated that § 271(a) cannot be avoided “simply by contracting out steps of a patent process to another entity.”<sup>68</sup> Yet, the court refused to extend liability under § 271(a) to each of multiple, independent actors merely because their collective actions recited every element of the claim.<sup>69</sup> In fact, the court stated that doing so would “subvert the statutory scheme of indirect infringement” under §§ 271(b) and (c), which requires knowledge and/or intent for liability.<sup>70</sup> The court reasoned that if participation alone triggered liability under § 271(a), then “a patentee would rarely, if ever, need to bring a claim for indirect infringement.”<sup>71</sup> Instead, the Federal Circuit agreed with the district court that for a party to be liable for joint infringement under § 271(a), it must “control or direct” the actions of others who are performing the step(s) the party itself is not performing.<sup>72</sup> BMC argued that because Paymentech provided the required information to the financial institutions, the requisite control or direction should be inferred.<sup>73</sup> The court disagreed, however, citing *Fromson* and

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62. *Id.* at \*21-22.

63. *Id.*

64. *Id.* at \*24.

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

66. *Id.*

67. *Id.* at 1378 (citing *Warner-Jenkinson Corp. v. Hilton Davis Corp.*, 520 U.S. 17 (1997); *Canton Bio-Med., Inc. v. Integrated Liner Techs., Inc.*, 216 F.3d 1367, 1370 (Fed. Cir. 2000); *Joy Techs. v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993)).

68. *Id.* at 1381.

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.* at 1382.

73. *Id.* at 1381.

*Cross Medical* to illustrate the amount of control necessary to trigger such liability.<sup>74</sup>

The court noted that a “party cannot avoid infringement . . . simply by contracting out steps” of the patented process, because such contracting would constitute the required control or direction.<sup>75</sup> On the other hand, the Federal Circuit acknowledged that the “control or direction” standard may allow parties to avoid infringing method claims by acting cooperatively through arms-length transactions. This implicates a problem where companies can enter into a contract, without one directing or controlling another, to split up the steps of a patent and avoid infringement.<sup>76</sup> However, the court suggested that these potential issues were outweighed by “concerns over expanding the rules governing direct infringement” and the fact that this risk can be “offset by proper claim drafting.”<sup>77</sup> Because the patentee chose to draft “ill-conceived” patent claims requiring the combined actions of multiple parties, the court declined to “unilaterally re-structure” those claims or the standards for joint infringement.<sup>78</sup>

Applying these standards to the case at hand, the court held BMC could not establish direct infringement because Paymentech did not perform all of the steps of the method claim and did not control the parties performing the other steps.<sup>79</sup> Moreover, BMC presented no evidence to support its argument that Paymentech gave instructions to the other parties on how to perform the steps.<sup>80</sup> Therefore, Paymentech’s actions combined with the other parties’ actions did not constitute joint infringement.<sup>81</sup>

## **B. The *Muniauction* Case:**

### *1. Facts and Procedural History*

In *Muniauction*, MuniAuction Inc. brought suit against Thomson Corp. and I-Deal LLC for infringement of U.S. Patent No. 6,161,099 (’099

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74. *Id.* at 1380 (citing *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1568 (Fed. Cir. 1985); *Cross Med. Prods. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293 (Fed. Cir. 2005)). See *supra* Section I.C.1 for a discussion of *Fromson* and *Cross Medical*.

75. *Id.* at 1381 (“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.”).

76. *Id.*

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.*

81. *Id.*

patent).<sup>82</sup> The patent at issue was directed to “electronic methods for conducting ‘original issuer auctions of financial instruments,’” or web-based methods for performing auctions for original-issuer municipal bonds over the Internet.<sup>83</sup> In an original-issuer auction, a municipality offers the bond to “bidders” (underwriters) who purchase the entire bond offering on an “all or nothing” basis.<sup>84</sup> The winner then resells the bonds to the public.<sup>85</sup> The bonds typically comprise a variety of debt instruments having different maturity dates and principal amounts, so the bidder must offer a price based on these amounts and maturity dates.<sup>86</sup>

The patent referenced an earlier bidding system, known as the Parity electronic bid submission. Parity resembled the claimed system, but used proprietary software instead of a web-based system in order for bidders to participate in the bond auctions.<sup>87</sup> Thomson modified Parity so that issuers could view bids over the Internet using a web browser.<sup>88</sup> The use of a web browser allowed bidders to monitor the auction and the status of the best bid.<sup>89</sup>

In October 2006, a jury found that the asserted claims were not obvious and, relying on the joint infringement theory, found willful infringement damages of \$38.4 million.<sup>90</sup> After the jury reached its verdict, but before the district court ruled on the defendant’s motion for judgment as a matter of law, the Supreme Court decided *KSR International Co. v. Teleflex Inc.*, which altered the patent nonobviousness standard.<sup>91</sup> Thomson filed motions for a new trial and for judgment as matter of law. Upon review the district court considered *KSR*, but denied Thomson’s motions, holding that substantial evidence supported the jury’s conclusion of non-obviousness in part based on secondary indicia.<sup>92</sup> The court granted a permanent injunction prohibiting the future use and sale of the infringing Thomson/iDeal Parity electronic bid submission system, doubled the jury’s damage award, and added \$7.6 million in prejudgment interest. This

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82. *MuniAuction, Inc. v. Thomson Corp.*, No. 01-1003, 2006 U.S. Dist. LEXIS 57461 (W.D. Pa. Aug. 11, 2006).

83. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1321 (Fed. Cir. 2008), *cert. denied*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009).

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.* at 1323.

88. *Id.*

89. *Id.*

90. *Id.*

91. *See KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007).

92. *Muniauction, Inc. v. Thomson Corp.*, 502 F. Supp. 2d 477, 490 (W.D. Pa. 2007).

brought the total judgment to \$84.6 million based on the finding of willful infringement, and Thomson appealed.<sup>93</sup>

## 2. *The Federal Circuit's Analysis*

On appeal, the Federal Circuit reversed the district court's permanent injunction and denial of judgment as a matter of law.<sup>94</sup> The Federal Circuit found several claims of the asserted the '099 patent obvious, and also held that Thomson did not infringe the remaining claims.<sup>95</sup> The Federal Circuit also vacated the district court's award of \$84.6 million.<sup>96</sup>

The Federal Circuit first addressed the question of obviousness of the broader asserted claims. The court evaluated MuniAuction's patent and found six of the claims of the asserted '099 patent obvious under *KSR* and *Leapfrog*.<sup>97</sup> The court held that the browser modification to Parity represented a combination of two well-known prior art elements to a person of ordinary skill in the art. Therefore, Thomson had clearly and convincingly established a prima facie case that the broader claims of the patent were obvious as a matter of law.<sup>98</sup>

The court next took up the issue of infringement of the remaining dependent claims that were not obvious. Because the purported infringement involved multiple parties, MuniAuction sought to proceed under the theory of joint infringement. The joint infringement issue presented was "whether the actions of at least the bidder and the auctioneer may be combined so as to give rise to a finding of direct infringement by the auctioneer."<sup>99</sup> While the appeal was pending, the Federal Circuit decided *BMC*, clarifying the standard for joint infringement.<sup>100</sup> The Federal Circuit cited *BMC* in its *Muniauction* opinion, acknowledging that "a defendant cannot . . . avoid liability for direct infringement by having someone else carry out one or more of the claimed steps on its behalf," but a "claim is directly infringed only if one party exercises control or direction over the entire process such that every step is attributable to the controlling party."<sup>101</sup> Acknowledging that the district court's denial of Thomson's motion for judgment as a matter of law occurred before *BMC* issued, the Federal Circuit found the jury instruction on joint infringement to have been based on

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93. *Id.*

94. *See Muniauction*, 532 F.3d 1318.

95. *Id.*

96. *Id.*

97. *Id.* at 1326-28.

98. *Id.*

99. *Id.* at 1329.

100. *Id.* at 1323.

101. *Id.* at 1329.

an interpretation of the Federal Circuit's *On Demand* standard that was no longer viable under *BMC*.<sup>102</sup> The court found that, under *BMC*, the "control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer *vicariously liable* for the acts committed by another party that are required to complete performance of a claimed method."<sup>103</sup> Although MuniAuction argued that Thomson controls access to its system and provides instruction to bidders on how to use it, the court held that this was not sufficient to meet the standard for joint infringement.<sup>104</sup> MuniAuction had not offered a theory on how Thomson might be vicariously liable for the actions of the bidders, and Thomson had neither performed every step of the claimed methods nor had another party perform the steps "on its behalf."<sup>105</sup> As a result, the court held that Thomson did not infringe with respect to the valid patent claims.<sup>106</sup> Supreme Court denied a petition for certiorari<sup>107</sup> to review the application of the "control or direction" standard in *Muniauction*.<sup>108</sup>

### III. CURRENT CASES EXAMINING JOINT INFRINGEMENT LIABILITY

Several district court cases decided after *BMC* dealt with the question of direction or control in the joint infringement context.<sup>109</sup> In finding the necessary direction or control, the cases seem to require that the accused infringer at least knew of the patented method. Although pre-*Muniauction* cases seem to require a finding of direction or control when the alleged

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102. *Id.* at 1329-30.

103. *Id.* at 1330 (citing *Int'l Rectifier v. Samsung Elecs. Co.*, 361 F.3d 1355, 1361 (Fed. Cir. 2004)) (emphasis added).

104. *Id.* at 1330.

105. *Id.*

106. *Id.*

107. *Muniauction, Inc. v. Thompson Corp.*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009).

108. *Petition for Writ of Certiorari, Miniauction, Inc. v. Thompson Corp.*, No. 08-847 (U.S. Dec. 22, 2008), 2008 WL 5467602.

109. *See, e.g.*, *Friday Group v. Ticketmaster*, No. 4:08CV01203 JCH, 2008 U.S. Dist. LEXIS 100529 (E.D. Mo. Dec. 12, 2008); *Fisher-Barton Blades, Inc. v. Blount, Inc.*, 584 F. Supp. 2d 1126 (E.D. Wis. 2008); *Alloc, Inc. v. Pergo, Inc.*, No. 02-C-736, 2008 U.S. Dist. LEXIS 35944 (E.D. Wis. May 1, 2008) (finding that the jury could have concluded that the Alloc Parties included instructions with the accused products as a matter of convenience for their end user customers, not to control the conduct of the customers); *TGIP, Inc. v. AT&T Corp.*, 527 F. Supp. 2d 561, 569 (E.D. Tex. 2007); *Gammino v. Gellco P'ship*, 527 F. Supp. 2d 395 (E.D. Pa. 2007); *Privasys, Inc. v. Visa Int'l*, No. C 07-03257 SI, 2007 U.S. Dist. LEXIS 86838, at \*1 (N.D. Cal. Nov. 14, 2007).

infringer provides specific instructions, post-*Muniauction* cases suggest otherwise.

**A. Pre-*Muniauction* District Court Cases Evaluating the “Control or Direction” Standard After *BMC***

1. *A Court Finds No Material Issues of Fact on the Question of Control or Direction When the Accused Infringer Had No Knowledge of the Patented Method*

In *Gammino v. Cellco Partnership*, the court found no issue of material fact on the question of direction and control despite the existence of a contract between the alleged joint infringers, and granted the defendant’s motion for summary judgment.<sup>110</sup> The patents at issue involved processes for blocking international phone calls, including evaluating dialed digits and preventing operation of the device if certain digits were international.<sup>111</sup> The accused infringer, Davel, owned and operated pay telephones, some of which blocked international phone calls.<sup>112</sup> Although Davel admitted to having a contractual relationship with service providers, it asserted that it did not provide instructions to the service providers for blocking calls, nor did it know how the service provider blocked the calls.<sup>113</sup> The court concluded that Davel did not control or direct the step in question, because Davel did not even know of the providers’ methods.<sup>114</sup>

2. *Courts Find Fact Issues on the Question of Control or Direction Based On Contractual Relationships and Instructions*

In contrast to *Gammino*, in *TGIP, Inc. v. AT&T Corp.*<sup>115</sup> and *Privasys, Inc. v. Visa International*<sup>116</sup> the courts found that there were issues of fact partly based on a contractual relationship. In *TGIP*, for instance, TGIP sued for infringement of a patented prepaid calling card system having a remote terminal to provide on-site activation and recharging of calling cards.<sup>117</sup> The accused infringer, AT&T, had contracted with some third

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110. 527 F. Supp. 2d 395.

111. *Id.* at 397.

112. *Id.*

113. *Id.*

114. *Id.* at 398.

115. 527 F. Supp. 2d 561, 569 (E.D. Tex. 2007).

116. No. C 07-03257 SI, 2007 U.S. Dist. LEXIS 86838, at \*1 (N.D. Cal. Nov. 14, 2007).

117. *TGIP*, 527 F. Supp. 2d at 569.



parties to provide an activation platform and other third parties to provide data terminals.<sup>118</sup> In addition, an AT&T corporate representative testified that one of the third parties was acting “on behalf of” AT&T.<sup>119</sup> TGIP presented evidence that AT&T provided specifications to the third parties that directed the process for sending an activation message to AT&T.<sup>120</sup> Citing *BMC*, the court denied AT&T’s summary judgment motion, concluding that an issue of material fact existed as to whether AT&T controlled or directed the companies that provided the activation platform and data terminals.<sup>121</sup>

In *PrivaSys, Inc. v. Visa International*, PrivaSys sued Visa for infringing a patented method for providing credit card security by generating a unique code with each credit card transaction that fraudulent cards would not generate.<sup>122</sup> Visa allegedly had a contractual relationship with banks that performed some of the steps of the claimed method. PrivaSys also asserted that Visa provided instructions to these banks and merchants on how to carry out these steps.<sup>123</sup> The court held that the alleged relationship between the banks and the entities that carried out the additional steps in the patented method was stronger than the relationship at issue in *BMC*.<sup>124</sup> Thus, the court permitted PrivaSys to amend its complaint to claim infringement against additional parties.<sup>125</sup>

#### **B. District Court Cases Evaluating the “Control or Direction” Standard After *Muniauction***

District court cases decided after *Muniauction* follow the *Muniauction* conclusion that instructions for completing the steps of a patented method alone do not support the finding of control or direction.<sup>126</sup> Post-*Muniauction* cases seem to require a contractual relationship between the alleged infringer and a third party who completes the patented steps in order to find the requisite direction or control necessary for a showing of

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118. *Id.* at 577.

119. *Id.* at 578.

120. *Id.*

121. *Id.*

122. No. C 07-03257 SI, 2007 U.S. Dist. LEXIS 86838, at \*1 (N.D. Cal. Nov. 14, 2007).

123. *Id.*

124. *Id.* at \*2 (“Both pieces of evidence tend to show that Visa exercised ‘direction or control’ over the customer--merchant interaction as well as over the banks, and thus perform[ed] or cause[d] to be performed each and every element of the claims.”).

125. *Id.*

126. See *Emtel, Inc. v. LipidLabs, Inc.*, 583 F. Supp. 2d 811 (S.D. Tex. 2008); *Rowe Int’l Corp. v. Ecast, Inc.*, 586 F. Supp. 2d 924 (N.D. Ill. 2008); *Global Patent Holdings, LLC v. Panthers*, 586 F. Supp. 2d 1331 (S.D. Fla. 2008).

direct infringement.<sup>127</sup> However, the cases seem to indicate that even a contractual relationship satisfies the requisite direction or control for direct infringement only when: (1) the alleged infringer provides specific instructions, and (2) a third party acts as the alleged infringer's agent in completing the infringing steps.<sup>128</sup> Although it is too early to judge the consequences of *Muniauction*, the post-*Muniauction* cases seem to suggest no finding of infringement where companies perform some of the patented steps and instruct their customers to perform the last step.<sup>129</sup>

1. *Mere Instruction is Insufficient to Establish Direction or Control*

In *Global Patent Holdings, LLC v. Panthers*, the plaintiff alleged infringement of a method patent for downloading material from a remote server in response to a query.<sup>130</sup> The method in question required both a website server and a remote computer user to complete all of the method's steps.<sup>131</sup> The plaintiff asserted that the remote user's actions were controlled by the defendant because the defendant supplied javascript programs on the remote user's computer to allow the process to begin.<sup>132</sup> The court held that this relationship does not establish direction or control.<sup>133</sup> The court noted that the remote user was not contractually bound to visit the website, that the user was not visiting the website within the scope of an agency relationship with the defendant, and that the defendant was not otherwise vicariously liable for the acts of the remote user.<sup>134</sup> Citing both *BMC* and *Muniauction*, the court stated that "it appears that the level of 'direction or control' the Federal Circuit intended was not mere guidance or instruction in how to conduct some of the steps of the method patent." Instead, the court stated that "the third party must perform the steps of the patented process by virtue of a contractual obligation or other relationship

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127. *Rowe Int'l Corp.*, 586 F. Supp. 2d 924; *Global Patent Holdings*, 586 F. Supp. 2d 1331; see also *Emtel*, F. Supp. 2d at 835 ("The cases also generally refer to a contractual agency relationship between the 'mastermind' and the third party performing some of the steps necessary to show infringement.").

128. See *Emtel*, 583 F. Supp. 2d 811; see also *Keithley v. Homestore.com, Inc.*, No. C 03-4447 SI, 2008 U.S. Dist. LEXIS 94235 (N.D. Cal. Nov. 19, 2008) (finding no control or direction where the defendant website provider supplied the real estate information to the end users who performed another step in the patented method).

129. See, e.g., *Keithley*, 2008 U.S. Dist. LEXIS 94235; *Global Patent Holdings*, 586 F. Supp. 2d 1331.

130. 586 F. Supp. 2d 1331.

131. *Id.* at 1335.

132. *Id.* at 1333.

133. *Id.* at 1335.

134. *Id.*

that gives rise to vicarious liability in order for a court to find ‘direction or control.’”<sup>135</sup>

2. *Providing Instructions in a Contractual Relationship is Insufficient to Establish Direction or Control*

In *Emtel, Inc. v. LipidLabs, Inc.*, the court analyzed the control or direction standard in depth.<sup>136</sup> The court held that the telemedicine support providers did not infringe a method patent for providing telemedicine using a video-conferencing system, which allows physicians to communicate with medical caregivers and patients in remote healthcare facilities.<sup>137</sup> The providers were under contract with physicians who remotely diagnosed medical conditions and instructed local medical caregivers about treating patients. After analyzing *BMC*, *Muniauction*, *Cross Medical*, and some post-*BMC* cases, the court stated that “[g]iving instructions or prompts to the third party in its performance of the steps necessary to complete infringement, or facilitating or arranging for the third-party’s involvement in the alleged infringement, are not sufficient.”<sup>138</sup> The court suggested that vicarious liability under *BMC* and *Muniauction* “generally refers to a contractual agency relationship between the ‘mastermind’ and the third party performing some of the steps necessary to show infringement.”<sup>139</sup> Yet, the court emphasized that the mere fact that there is a contract is not sufficient.<sup>140</sup> In order for liability to attach, “the ‘mastermind’ must so control the third party in its performance of the infringing steps that the third party does so as the defendant’s agent.”<sup>141</sup>

Based on this analysis, the court concluded that the contractual relationship did not suffice for “control and direction” such that every step of the claimed method was attributable to the telemedicine support providers.<sup>142</sup> The court held that the contracts set basic parameters for the physicians but did not set limits on or assert control over the physicians’ medical work, judgment, or skill.<sup>143</sup> Because the providers did not control the

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135. *Id.*

136. 583 F. Supp. 2d 811 (S.D. Tex. 2008).

137. *Id.* It is worthwhile to note that the fact pattern is similar to that of *Cross Medical*.

138. *Id.* at 834.

139. *Id.* at 835.

140. *Id.* at 839.

141. *Id.*

142. *Id.*

143. *Id.* at 838.

physicians' work, and the physicians were not agents or servants of the provider, the providers did not infringe the patent claims.<sup>144</sup>

3. *One District Court Finds the Necessary Direction or Control*

In *Rowe International Corp. v. Ecast, Inc.*, the patent at issue involved a computer jukebox that had a central management station that could distribute digital music to multiple jukeboxes.<sup>145</sup> Ecast contracted third parties to manufacture jukebox hardware specifically designed to operate with Ecast's network service, along with technical specifications.<sup>146</sup> The court concluded that there was evidence from which a jury could reasonably find that the other parties manufactured jukebox hardware subject to Ecast's direction and control.<sup>147</sup> The court specifically found that "[t]he indicia of direction and control go beyond what was present in *BMC Resources*, *Cross Medical Products*, and other cases in which patentees failed to establish 'mastermind'-level direction of participants in the alleged infringing activities."<sup>148</sup>

#### IV. DISCUSSION

In *BMC* and *Muniauction*, the Federal Circuit took a step toward establishing a clear rule regarding joint infringement by applying the "control or direct" standard to method claims. However, it is still not clear how much control or direction is necessary to trigger liability.<sup>149</sup> Moreover, the *Muniauction* decision raises fairness concerns as well as confusion. To promote fairness and consistency, and thereby increase predictability, the court should further clarify the joint infringement standard by developing a test to determine the amount of control or direction that is necessary for a court to find joint infringement.

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144. *Id.*

145. 586 F. Supp. 2d 924 (N.D. Ill. 2008).

146. *Id.* at 930.

147. *Id.* at 933.

148. *Id.* at 932.

149. As stated in *kSolo, Inc. v. Catona*, No. 07-5213-CAS (AGRx), 2008 U.S. Dist. LEXIS 95107, at \*11 (C.D. Cal. Nov. 10, 2008), neither *BMC* nor *Muniauction* provides a standard for control or direction. Instead, the *Muniauction* court only set out a 'spectrum' of multiple-party relationships. *Id.* "At one end is 'mere arms-length cooperation,' which is insufficient to establish infringement. At the other end is 'control or direction over the entire process such that every step is attributable to the controlling part, i.e., the mastermind,' which is sufficient to establish infringement." *Emtel, Inc. v. LipidLabs, Inc.*, 583 F. Supp. 2d 811, 826 (S.D. Tex. 2008).

### A. The Virtues and Vices of the Federal Circuit's Decisions

In the wake of *BMC*, the court in *Muniauction* affirmed existing case law that a multistep process claim is jointly infringed only if the accused infringer controls or directs other parties that perform the steps not performed by the accused party. This decision eliminates an inconsistency in the treatment of multi-actor method claims and clarifies the doctrine of joint infringement to some extent.

The Intellectual Property Owners Association (IPO), in its amicus brief calling on the Federal Circuit to rehear a panel decision or conduct a rehearing en banc to reconsider the *Muniauction* decision, argued that “not all process patents can be reliably parsed at the claiming stage in order to predict whether or how the claimed steps might be practiced by multiple entities.”<sup>150</sup> As the Federal Circuit noted, the problems in *BMC* and *Muniauction* could have been easily avoided by drafting their claims to focus on one entity. However, it may be more natural for some inventions to be written in a multi-actor claims form, considering the current stage of development of technology.<sup>151</sup>

IPO's brief also suggested that the decisions in *BMC* and *Muniauction* may be read to be inconsistent interpretations of control or direction. In applying the “control or direction” standard, the *BMC* court found no control or direction between Paymentech and debit networks because of the lack of evidence that Paymentech provided any “instructions or directions” regarding the use of data to debit networks.<sup>152</sup> In *Muniauction*,

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150. Brief for Intellectual Property Owners Association as Amicus Curiae in Support of Petition for Panel Rehearing and Rehearing En Banc at 5, *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008) (No. 2007-1485), 2008 WL 3992446.

151. Although the patentee would be able to get around this by drafting method claims from the perspective of a single entity in a way that the single entity performs every step of a method claim, some claims may make more sense when describing an invention in multi-entity forms if the invention necessarily involves multiple parties.

152. *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378 (Fed. Cir. 2007). The court stated:

Specifically, the magistrate and district court found BMC's evidence that Paymentech provides data (debit card number, name, amount of purchase, etc.) to the debit networks, absent any evidence that Paymentech also provides *instructions or directions* regarding the use of those data, to be inadequate. BMC argues that *instructions or directions* can be inferred from the provision of these data, or that the data themselves provide *instructions or directions*. But, having presented no evidence below to support either theory, BMC is not entitled to such an inference with respect to the debit networks that would allow it to survive summary judgment.

*Id.* (emphasis added).

however, Thomson controlled access to its system and provided “instruction” to user-bidders on how to use it, but the *Muniauction* court held that it was not sufficient to meet the standard for control or direction necessary for joint liability.<sup>153</sup> One might reconcile the two cases by noting that the term “instruction” might have been used to mean “direction” in *BMC*, and “teaching” in *Muniauction*. However, this argument cannot be reconciled with the *Muniauction* court’s statement on the trial court’s jury instruction. The jury instruction on joint infringement read as follows:

Consider whether the parties are acting jointly or together in relation to the electronic auction process. Are they aware of each other’s existence and interacting with each other in relation to the electronic auction process? Is there one party *teaching, instructing, or facilitating* the other party’s participation in the electronic auction process? These are the types of questions that you should ask in making your decision on this issue. If you find that there is a sufficient connection between Thomson and the bidders and the issuers that used Thomson’s process, then you could find Thomson liable for direct infringement.<sup>154</sup>

On this jury instruction, the court stated that “none of the questions identified by the jury instruction are relevant to whether Thomson satisfies the ‘control or direction’ standard of *BMC Resources*.”<sup>155</sup> Here, the court effectively provided bewildering guidance to lower courts that “teaching, instructing or facilitating” are not relevant to the standard for “control or direction.” The *Muniauction* court further justified its conclusion by interpreting the *BMC* ruling as affirming a reading of *On Demand* as “not in any way rely[ing] on the relationship between the parties.”<sup>156</sup> To be precise, the *BMC* court did not state that the relationship between parties is irrelevant to the “control or direction” standard.

The flawed reasoning by the panel in *Muniauction* lets masterminds escape liability. The alleged infringer in *Muniauction* knew and intended that the issuers and bidders would complete the patented process, provided directions to the issuers and bidders for completing the steps, and received the financial benefit of the patented process. Unlike the post-*BMC* cases that were decided before *Muniauction*, the post-*Muniauction* cases seem to

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153. *Muniauction*, 532 F.3d at 1330 (“[N]one of the questions identified by the jury instruction are relevant to whether Thomson satisfies the “control or direction” standard of *BMC Resources*. That Thomson controls access to its system and *instructs* bidders on its use is not sufficient to incur liability for direct infringement.” (emphasis added)).

154. *Id.* at 1229 (emphasis added).

155. *Id.* at 1330.

156. *Id.* at 1229.

show that the *Muniauction* decision lets companies evade liability when they perform all but the last of the patented steps and instruct customers to perform the last step.<sup>157</sup> This can encourage clever infringers to act as enterprising masterminds who know and intend the patented process be performed and benefit from the performance of the method. By reading the “direction” element out of the “control or direction” standard outlined in *BMC*, the opinion in *Muniauction* severely restricts mastermind liability.

As the IPO noted, many thousands of patents may become worthless<sup>158</sup> under the stringent “control or direction” standard set forth in the *Muniauction* decision. Furthermore, denying protection of all multi-actor method claims may be contrary to the public notice function guaranteed by the due process clause of the Fifth Amendment. Technically, there is no statutory provision or case law that explicitly prohibits multi-actor method claims or a finding of joint infringement. In addition, denying protection of all multi-actor method claims may raise a fairness issue since some new and useful inventions would be denied protection. Therefore, to resolve the remaining confusion created by the *Muniauction* court and to prevent the unfair situation where all multi-participant claims are denied protection, the court should further clarify how much control or direction is necessary to trigger liability.

#### **B. Vicarious Liability Test for Determining Whether the Degree of Control or Direction is that of a Mastermind**

In *BMC*, the court refused to extend liability under § 271(a) to multiple, independent actors merely because their collective actions practiced every element of the claim. The court was correct in doing so because finding infringement in such cases could result in the harsh outcome that a party who is unaware of what others are doing may be found to infringe. Specifically, the court refused to infer the requisite control or direction from the fact that Paymentech provided the required information to the financial institutions.<sup>159</sup> The court’s main concern was that doing so would “subvert the statutory scheme of indirect infringement” under §§ 271(b) and (c), which require knowledge and/or intent for liability.<sup>160</sup> Indeed, as

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157. See, e.g., *Keithley v. Homestore.com, Inc.*, No. C 03-4447 SI, 2008 U.S. Dist. LEXIS 94235 (N.D. Cal. Nov. 19, 2008); *Global Patent Holdings, LLC v. Panthers*, 586 F. Supp. 2d 1331 (S.D. Fla. 2008).

158. Brief of *Amicus Curiae* Intellectual Prop. Owners Assoc., *supra* note 150, at 5.

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

160. *Id.* A finding of indirect infringement also requires a finding of direct infringement. See *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (“The patentee always has the burden to show direct infringement for each instance of indirect

Professor Lemley noted, permitting “individual, non-infringing acts of unrelated parties together to add up to infringement would render both §271(b) and 271(c) meaningless.”<sup>161</sup> On the other hand, as the *BMC* court noted, “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.”<sup>162</sup> Although the Federal Circuit pointed out that the potential problems could be avoided by proper drafting, the loopholes need to be closed.<sup>163</sup> In situations where a remedy is needed, the solution should be a “minimally intrusive” one.<sup>164</sup>

To resolve uncertainty regarding what type and degree of control or direction are necessary, this Note proposes that the courts adopt a vicarious liability test, based on copyright vicarious liability requirements, for finding a joint infringement liability that captures mastermind liability as the *BMC* court intended.

### 1. *Copyright Vicarious Liability*

Vicarious liability, a form of indirect copyright infringement, is found where one has (1) the right and ability to control the infringing activity, and (2) receives a direct financial benefit from the infringing activity.<sup>165</sup>

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infringement.”). It is not clear whether a finding of indirect infringement would require a direct infringement of a single party. However, it is likely from the plain reading of cases that a finding of any direct infringement, whether joint or not, would be sufficient. If this is the case, the court’s concern is valid, since inducing parties and contributors would be strictly liable as joint infringers without having to show any knowledge or intent.

161. Lemley, *supra* note 2, at 262.

162. *BMC*, 498 F.3d at 1381.

163. Some commentators have proposed a new form of patent infringement. See Gerdelman, *supra* note 3 (suggesting a statutory standard to determine the liability of separate entities that successively perform steps of a patented process); Truong, *supra* note 3 (proposing a new cause of action for conspiratorial infringement that would require a mens rea requirement similar to that of inducement instead of requiring a single controlling entity).

164. Lemley, *supra* note 2, at 284 (“But if the distribution is unavoidable—if it results from the inherently global nature of computer networks—the law should seek minimally intrusive solutions designed to prevent those inventions from losing all protection.”).

165. *Shapiro, Bernstein & Co. v. H.L. Green Co.*, 316 F.2d 304, 307 (2d Cir. 1963) (holding that a company that leased floor space to a phonograph record department was liable for record department’s sales of “bootleg” records, even though the company had no actual knowledge of infringement, because of the company’s beneficial relationship to the sales).

[A]lthough vicarious liability was initially predicated upon the agency doctrine of respondeat superior . . . , even in the absence of an employer-employee relationship one may be vicariously liable if he has the



Under the doctrine of vicarious liability, one may be found liable even without specific knowledge of infringing acts.<sup>166</sup> The best known copyright cases involving vicarious liability are the “dance hall” cases, where courts found vicarious liability when dance hall owners allowed the unauthorized public performance of musical works by the bands they hired, even when the owners had no knowledge of the infringements and had even expressly warned the bands not to perform copyrighted works without a license from the copyright owners.<sup>167</sup> Although the vicarious liability standard of patent law did not originate from copyright law, it is worthwhile to note that the financial benefit element serves as a settled standard for judging vicarious liability in copyright law.

## 2. *The Elements of the New Vicarious Liability Test in the Joint Infringement Context*

The *BMC* court appeared to establish one standard for showing joint infringement—the “vicarious liability” standard: “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.”<sup>168</sup> The court also suggested that it would be unfair for the mastermind to escape liability.<sup>169</sup> In *Muniauction*, the court reaffirmed the importance of vicarious liability in determining joint infringement, stating, “the control or

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right and ability to supervise the infringing activity and also has a direct financial interest in such activities.

*Gershwin Publ’g Corp. v. Columbia Artists Mgmt, Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971).

166. *Id.*

167. *See, e.g.*, *Famous Music Corp. v. Bay State Harness Horse Racing & Breeding Ass’n*, 554 F.2d 1213 (1st Cir. 1977); *Dreamland Ball Room, Inc. v. Shapiro, Bernstein & Co.*, 36 F.2d 354 (7th Cir. 1929); *KECA Music, Inc. v. Dingus McGee’s Co.*, 432 F. Supp. 72 (W.D. Mo. 1977).

[The] cases are legion which hold the dance hall proprietor liable for the infringement of copyright resulting from the performance of a musical composition by a band or orchestra whose activities provide the proprietor with a source of customers and enhanced income. He is liable whether the bandleader is considered, as a technical matter, an employee or an independent contractor, and whether or not the proprietor has knowledge of the compositions to be played or any control over their selection.

*Shapiro, Bernstein & Co.*, 316 F.2d at 307 (citing some ten cases).

168. *BMC Res, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379 (Fed. Cir. 2007) (emphasis added). *See also*, *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318 (Fed. Cir. 2008), *cert. denied*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009); *Emtel, Inc. v. LipidLabs, Inc.*, 583 F. Supp. 2d 811 (S.D. Tex. 2008).

169. *BMC*, 498 F.3d at 1381.

direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer *vicariously liable* for the acts committed by another party that are required to complete the performance of a claimed method.”<sup>170</sup> As noted above, the vicarious liability standard proffered in *Muniauction* fails to capture infringement where an enterprising mastermind enlists non-agents, like a customer or a business partner, to complete a patented process. Moreover, as seen in the historical development of both agency theory and the “some connection” standard, neither test determines the degree of control or direction necessary to trigger joint infringement liability in such a way as to result in consistent decisions.

The new vicarious liability test for determining the degree of control or direction would require that the accused infringer: (1) have taught or instructed the other party, and (2) derived an obvious and direct financial benefit. The two requirements will ensure that an enterprising mastermind who knew and intended that the patented process would be performed by another party, and benefited from the performance of the method, would be liable. The first requirement of the test is necessary to avoid situations where “individual, non-infringing acts of unrelated parties together add up to infringement.”<sup>171</sup> The second element of the new test adopts the financial interest element of copyright vicarious liability. Although the financial benefit element is borrowed from vicarious liability requirements, which is one form of indirect infringement of copyright, the element is appropriate for finding direct infringement of a patent. While one would need to have a financial benefit from allowing performance of the *complete* infringing act in copyright, the accused infringer would only need to receive a direct financial benefit from allowing the *remaining steps* to be performed in order to satisfy the element here proposed. The requirement of the rights and ability to control the infringing acts would not be necessary in this case since it would defeat the purpose of closing the loophole where a company performs all but the last of the patented steps and the customers then perform the last step.

Applying the test to the fact pattern in *BMC*, the result will be the same as the ruling by the Federal Circuit since there was no evidence of instruction. On the other hand, application of the test to the fact pattern in

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170. *Muniauction*, 532 F.3d at 1330 (emphasis added).

171. Lemley, *supra* note 2, at 262. This requirement assumes knowledge of the patent because one would not be able to teach or instruct the other party without knowledge. This would be consistent with the finding in *Gammino v. Cellco P’ship*, 525 F. Supp. 2d 395 (E.D. Pa. 2007), which is a post-*BMC* case. There the district court held that there was no control or direction because the defendant did not even know the plaintiff’s method. *Id.*

*Muniauction*, where there was evidence of instruction and a financial benefit, will result in the desirable outcome where Thomson is liable for joint infringement for acting as a mastermind.

The “vicarious liability test” will close the current loophole without subverting the basis for indirect infringement. The new scheme is broad enough to cover the loophole described in *BMC*, where a mastermind can escape liability,<sup>172</sup> and narrow enough to avoid findings of infringement of inadvertent non-infringing acts of unrelated parties. By adopting this vicarious liability test the courts will be able to promote consistency and increase predictability.

### C. Strategies to Deal with the Current Joint Infringement Standard

In the interim, the decisions in *BMC*<sup>173</sup> and *Muniauction* illustrate the importance of proper claim drafting and provide guidance to patent prosecutors and litigators on how to protect patentees from being left with claims that cannot be enforced against a single entity. Certainly, some, if not all, of the problems that are faced today, including in *BMC* and *Muniauction*, could have been avoided with better draftsmanship. Patent holders of recently-granted patents should consider amending claims that have yet to issue, or filing a reissue request for patents that have already issued.<sup>174</sup> With respect to future patents, prosecutors should draft method claims from the perspective of a single entity in a way that the single entity performs every step of a method claim.<sup>175</sup> If the prosecutor decides to write a multi-actor multi-step claim, the number of required actors should be limited as the likelihood of proving direct infringement decreases with each additional actor, due to the need to show that one party is exercising control over the others. In addition, when possible, prosecutors should consider including apparatus claims with multiple elements that can be directly infringed by a single entity.<sup>176</sup>

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172. The new scheme covers both the Company/Customer Fact Pattern and the Company/Company Fact Pattern noted by one commentator. *See* Gerdelman, *supra* note 3, for discussion of the two patterns.

173. *BMC*, 498 F.3d at 1381 (“The concerns over a party avoiding infringement by arms-length cooperation can usually be offset by proper claim drafting. A patentee can usually structure a claim to capture infringement by a single party.”).

174. 35 U.S.C. § 251 (2006). § 251 prescribes a two-year limit for filing applications for broadening reissues.

175. *See* Lemley, *supra* note 2, at 272-75.

176. In *NTP, Inc. v. Research In Motion, Ltd.* the Federal Circuit noted that “the concept of ‘use’ of a patented method or process is fundamentally different from the use of a patented system or device.” 418 F.3d 1282, 1317 (Fed. Cir. 2005). The court explained

When naming parties in a patent infringement action, the patent holder may want to name more than one defendant to make better use of the joint infringement doctrine. At the discovery stage, litigators should explore ways to establish control or direction, and seek discovery to explore the amount of control or direction between the parties who perform the method claim steps. Examples of evidence that may help establish control or direction include: evidence of contracting out a certain step, instructions on how to perform a certain step, knowledge of performance of a certain step by a party, and/or ability to control another entity's activities.

## V. CONCLUSION

In *BMC Resources, Inc. v. Paymentech, L.P.*<sup>177</sup> and *Muniauction, Inc. v. Thomson Corp.*,<sup>178</sup> the Federal Circuit determined the standard under which joint infringement would be allowed. Under this standard, when an accused infringer performs some of the steps of a patented method and other parties perform the remaining steps, the patent owner can establish infringement only if the other parties operated under the control or direction of the accused infringer. Although the Federal Circuit, in *BMC* and *Muniauction*, took steps towards establishing a clear rule, it is still not clear how much control or direction is necessary to trigger joint infringement liability. Although the Federal Circuit acknowledged a loophole that the current framework of patent infringement allows, the *Muniauction* court's misinterpretation of the ruling in *BMC* led to a decision that may weaken the patent system by leaving many patent holders of multi-participant claims without remedy. To promote fairness, the court should develop a new joint infringement test. The vicarious liability test proposed here is broad enough to cover the loophole in protection and narrow enough to avoid findings of infringement by inadvertent non-infringing acts of unrelated parties. By adopting the vicarious liability test, the courts will be able to better serve the patent holders and the public by providing a simple, clear way of determining whether one is liable for joint infringement. In the interim, patent prosecutors and litigators need to keep the two decisions in mind in order to properly draft claims and provide better pro-

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that "the use of a process necessarily involves doing or performing each of the steps recited. This is unlike use of a system as a whole, in which the components are used collectively, not individually." *Id.* at 1318.

177. 498 F.3d 1373.

178. 532 F.3d 1318 (Fed. Cir. 2008), *cert. denied*, No. 08-847, 2009 U.S. LEXIS 1925 (U.S. Mar. 9, 2009).

tection to patent holders by avoiding situations where patent holders are left with claims that cannot be enforced.