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### PATENTS

The author discusses joint patent infringement in the context of recent Federal Circuit rulings.

#### Multi-Location, Multi-Actor Activities: Infringement or Not?



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**D**irect infringement requires making, using, selling, offering to sell, or importing an invention.<sup>1</sup> It is often easy to identify makers, users, sellers, etc., for inventions defined by components or steps associated with a single location. For instance, all claimed components of a product invention might be amenable to inclusion in a single product.

Once an accused product is identified, it is normally easy to find a single person, company, endor other legal entity that makes, uses, sells, offers to sell, or imports

<sup>1</sup> 35 U.S.C. § 271(a).

that product. Steps of process invention might similarly be carried out in a single location. If one can identify a single location where all claimed steps are performed, one can likely associate a single legal entity with activity at that location.

Claiming elements at a single location is frequently the most intuitive and logical way to define an invention, particularly if features of an invention will reside at a single location when that invention is actually practiced. For example, a claim for a machine or article may define an invention as a collection of interrelated components. In actual implementations of that claimed invention, those interrelated components may be parts of single device or other product.

Similarly, a process claim may define an invention as a series of interrelated steps. When the claimed process is implemented, those steps may be performed by a single factory, within a single computer or other device, etc.

Sometimes a patent claim may define an invention by reference to components and/or activities at widely dispersed locations. In some such cases, the real innovation may reside in a combination of activities and/or components that will not normally be in a single place.

Suppose, for example, that an inventor develops a technique for communicating large amounts of data across a network. Assume that technique requires pre-processing of data prior to transmission and post-processing the transmitted data once it is received. Further assume that there is prior art describing the same or similar preprocessing in an unrelated context, and that there is additional prior art describing a same or similar postprocessing technique in another unrelated environment.

Under those circumstances, it might be difficult to avoid the prior art by only claiming a transmitter or pre-processing steps or by only claiming a receiver or post-processing steps. Even if there is a reasonable argument to distinguish such a claim over the prior art, however, there may be temptation to accept a multi-location claim.

An examiner might indicate a willingness to allow a claim reciting steps at the transmitting and receiving ends, but might firmly reject claims that do not recite activity at both ends. Faced with the prospect of a lengthy and expensive appeal to obtain allowance of a single location claim, possibly combined with a limited patent budget and/or unknown market potential for the invention, the inventor or assignee may consider settling for the two-location claim. More than ever before, however, one should think very carefully before accepting a multi-location claim.

## Method Claims

If a multi-location claim is a method claim, it may not have any practical value. Just as claims based on activities and/or components at a single location will usually implicate a single legal entity, claims requiring components and/or activities at widely dispersed locations will often implicate multiple legal entities.

Continuing the above example, an accused system may include a transmitter in one location and numerous widely distributed receivers. Company A may own and operate the transmitter, but the receivers may be owned and operated by individuals or other entities distinct from company A. Under a line of Federal Circuit cases

recently culminating in *Akamai Technologies Inc. v. Limelight Networks Inc.*,<sup>2</sup> it may now be extremely difficult to establish method claim infringement when multiple legal entities perform the claimed steps.

The *Akamai* patents-in-suit included method claims directed to delivering a website “base document” from a content provider’s computer and delivering individual embedded objects stored by a Content Delivery Network, or CDN.<sup>3</sup> The defendant was a CDN, and the asserted claims recited steps performed by that CDN.<sup>4</sup> The claims also recited a “tagging” step performed by customers of the CDN, but not by the CDN itself.<sup>5</sup> This tagging involved modifying Uniform Resource Locators, or URLs, of certain embedded objects in those customers’ websites so that those URLs would link to objects stored by the CDN.<sup>6</sup> The CDN provided explicit step-by-step instructions to its customers regarding how the tagging should be performed, and contracts between the CDN and its customers required those customers to perform the tagging step if those customers utilized the CDN’s service.<sup>7</sup>

Because the accused CDN did not perform all of the recited claim steps, the patentee argued a theory of joint liability.<sup>8</sup> The patentee’s theory relied on reasoning from *BMC Resources Inc. v. Paymentech L.P.*<sup>9</sup> *BMC* held that infringement requires showing a defendant to have practiced every element of the claimed invention, but *BMC* also stated that joint liability could be found if one party “controls or directs” the activities of another party.<sup>10</sup> The patentee in *Akamai* obtained a verdict of infringement under this joint liability theory.<sup>11</sup>

After the *Akamai* trial court denied JMOL,<sup>12</sup> the Federal Circuit issued its decision in *Muniauction Inc. v. Thomson Corp.*<sup>13</sup> *Muniauction* relied on *BMC Resources* and held “[t]hat Thomson [the accused infringer] controls access to its system and instructs bidders on its use is not sufficient to incur liability for direct infringement.”<sup>14</sup> In response to a request for reconsideration from the CDN defendant in *Akamai*, and finding no material difference between the CDN’s interaction with its customers and those of the accused infringer in *Muniauction*, the district court granted JMOL of noninfringement.<sup>15</sup>

On appeal, the Federal Circuit further expounded on the principles of *BMC Resources* and *Muniauction*. The Federal Circuit referred to the “control or direction” test of *BMC Resources* as a foundational basis for determining infringement by joint parties, and further noted the *Muniauction* holding that the requisite control or direction “is met in circumstances in which ‘the law would traditionally hold the accused direct infringer vi-

<sup>2</sup> 629 F.3d 1311, 97 USPQ2d 1321 (2010) (81 PTCJ 255, 12/24/10).

<sup>3</sup> *Id.* at 1315, 97 USPQ2d at 1323-24.

<sup>4</sup> *Id.* at 1316-17, 97 USPQ2d at 1324.

<sup>5</sup> *Id.*, 97 USPQ2d at 1324.

<sup>6</sup> *Id.* at 1316, 97 USPQ2d at 1324.

<sup>7</sup> *Id.* at 1316-18, 97 USPQ2d at 1324-26.

<sup>8</sup> *Id.* at 1317, 97 USPQ2d at 1325.

<sup>9</sup> 498 F.3d 1373, 84 USPQ2d 1545 (2007) (74 PTCJ 644, 9/28/07).

<sup>10</sup> *Id.* at 1380, 84 USPQ2d at 1550.

<sup>11</sup> 629 F.3d at 1316, 97 USPQ2d at 1325.

<sup>12</sup> *Id.* at 1318, 97 USPQ2d at 1325.

<sup>13</sup> 532 F.3d 1318, 87 USPQ2d 1350 (2008).

<sup>14</sup> 532 F.3d at 1330, 87 USPQ2d at 1358

<sup>15</sup> 629 F.3d at 1318, 97 USPQ2d at 1325.

cariously liable for the acts committed by another party.’”<sup>16</sup>

The court characterized control or direction and the providing of instructions as considerations, but indicated that the essential determination is whether the relationship between the parties is such that the acts of one may be attributed to the other.<sup>17</sup> The court then expressly held as a matter of Federal Circuit law that “there can only be joint infringement when there is an agency relationship between the parties who perform the method steps or when one party is contractually obligated to the other to perform the steps.”<sup>18</sup> Because neither agency nor contractual obligation was present, the court upheld the JMOL.<sup>19</sup>

Some amount of direction or control may not necessarily create an agency relationship or joint infringement after *Akamai*. As noted by the Federal Circuit, the accused infringers in both *Akamai* and *Muniauction* gave their customers instructions on use of a service and required those customers to perform certain steps if they wished to use that service.<sup>20</sup> This is not the type of control that is required to create joint infringement. Quoting the Restatement (Third) of Agency, the Federal Circuit stated that “within any relationship of agency the principal *initially* states what the agent shall and shall not do, in specific or general terms.”<sup>21</sup>

An agency relation does not arise simply because one party provides explicit direction to another, however.<sup>22</sup> There must be a manifestation by a first party that a second party will act on the first party’s behalf, and the second party must consent to act in the first party’s behalf.<sup>23</sup> In short, there is not likely to be an agency relation unless one joint infringer has the right to cause the other joint infringer to perform one or more claimed steps.<sup>24</sup> If party A only has the right to control *how* party B performs a claim step, but party B is free to initially decide whether to perform or not to perform, there is likely no agency sufficient to make A and B joint infringers.

Similarly, the existence of a contract that gives party A the right to control *how* party B performs an activity will not create joint infringement if party B is not obligated to perform that activity. Stated differently, a contract under which party A can control the details of how party B performs a method step will not create joint infringement unless that contract also requires party B to perform that step.

After acknowledging that the contracts between the accused CDN and its customers required those customers to perform certain claim steps if those customers chose to use the CDN’s service, the Federal Circuit found that the contracts “merely provide[d] the customers with the tools to allow them to exercise their independent discretion and control over how and in what respect they implement the system.”<sup>25</sup> As also stated by the court, “[t]he form contract does not *obligate* [the

CDN’s] customers to perform any of the method steps[;] [i]t merely explains that the customer will have to perform the steps *if* it decides to take advantage of [the CDN’s] service.”<sup>26</sup>

If the patentee cannot establish joint infringement for purposes of proving direct infringement, indirect infringement is also unlikely. As stated by the Federal Circuit in *BMC*, “[i]ndirect infringement requires, as a predicate, a finding that some party amongst the accused actors has committed the entire act of direct infringement.”<sup>27</sup> If party A only performs some method claim steps and party B only performs the remaining claim steps, neither A nor B has committed the entire act of infringement. In such a case, there would be no indirect infringement.

## “System” Claims

In addition to method claims reciting steps in multiple locations, patents may also include device claims that recite components in multiple locations. Multi-location device claims, which are often styled as “system” claims, may recite elements that are owned and operated by different legal entities. For example, a claim might recite a server computer and a client computer. In practice, the server may be owned and operated by one entity and the client might be owned and operated by a different entity. In some cases, one of those entities might be an infringer.

System claims were at issue in *Centillion Data Systems LLC v. Qwest Communications International Inc.*<sup>28</sup> One of those claims included elements that read upon a “back-end” system maintained by a service provider and an element that read upon a “front-end” system maintained by a user.<sup>29</sup> The accused products included two parts: a back office system maintained by Qwest and front-end client applications that a user may install on a personal computer.<sup>30</sup> The issue in *Centillion* was whether a system claim could be infringed by “use” under 35 U.S.C. § 271(a) when the claim includes elements in the possession of more than one actor.<sup>31</sup> In some cases, the answer is yes.

The Federal Circuit held that “to ‘use’ a system for purposes of infringement, a party must put the invention into service, i.e., control the system as a whole and obtain benefit from it.”<sup>32</sup> However, a party that uses a system under Section 271(a) need not exercise physical or direct control over each element of that system.<sup>33</sup> Although a party must use every element of the system in order to infringe, that party can do so by placing all elements of the system collectively into service.<sup>34</sup>

There were two ways in which the accused system in *Centillion* was operated. In a first “on-demand function” type of operation, a customer could create a query

<sup>16</sup> *Id.* at 1319, 97 USPQ2d at 1326.

<sup>17</sup> *Id.*, 97 USPQ2d at 1326.

<sup>18</sup> *Id.* at 1320, 97 USPQ2d at 1327.

<sup>19</sup> *Id.* at 1320-21, 97 USPQ2d at 1327-28.

<sup>20</sup> *Id.* at 1320, 97 USPQ2d at 1327.

<sup>21</sup> *Id.* at 1321, 97 USPQ2d at 1327 (underscore added).

<sup>22</sup> *Id.*, 97 USPQ2d at 1327.

<sup>23</sup> *Id.*, 97 USPQ2d at 1327.

<sup>24</sup> *See id.* at 1320-21, 97 USPQ2d at 1327.

<sup>25</sup> *Id.* at 1321, 97 USPQ2d at 1328.

<sup>26</sup> *Id.*, 97 USPQ2d at 1328 (italics in original).

<sup>27</sup> 493 F.3d at 1379, 84 USPQ2d at 1548 (citing *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272, 70 USPQ2d 1369 (Fed. Cir. 2004) (67 PTCJ 546, 4/9/04)).

<sup>28</sup> 631 F.3d 1279, 97 USPQ2d 1697 (Fed. Cir. 2011) (81 PTCJ 371, 1/28/11).

<sup>29</sup> *Id.* at 1281, 97 USPQ2d at 1699.

<sup>30</sup> *Id.*, 97 USPQ2d at 1699.

<sup>31</sup> *Id.* at 1283, 97 USPQ2d at 1701.

<sup>32</sup> *Id.* at 1284, 97 USPQ2d at 1701.

<sup>33</sup> *Id.*, 97 USPQ2d at 1701.

<sup>34</sup> *Id.*, 97 USPQ2d at 1701.

that the Qwest back-end elements would process and then provide a downloadable result.<sup>35</sup> In a second type of operation, a user would subscribe and the back-end elements would create periodic summary reports that would also be available for user download.<sup>36</sup>

The Federal Circuit held that the customer was using the system under Section 271(a) in either operational mode.<sup>37</sup> In on-demand operation, the customer put the system as a whole into service by creating a query and transmitting it to the back-end.<sup>38</sup> That query caused the back-end processing to act for its intended purpose and would not have occurred but for the customer's request.<sup>39</sup> "By causing the system as a whole to perform this processing and obtaining the benefit of the result, the customer has 'used' the system under § 271(a)."<sup>40</sup> It made no difference that Qwest physically possessed the back-end elements.<sup>41</sup> The customer was deemed to be a single user of the entire system.<sup>42</sup>

The second type of system operation was also a Section 271(a) use by the customer.<sup>43</sup> The second operational mode differed from the first in that the first mode was a one request/one response scenario, while in the second operational mode a single user subscription would result in back-end processing on a monthly basis.<sup>44</sup> This was still found to be a use because the entire system would not have been put into service but for the customer's actions.<sup>45</sup>

Interestingly, Qwest (the operator of the back-end elements) was found *not* to be a user of the system within Section 271(a).<sup>46</sup> Although Qwest may have made the back-end elements and supplied software to the customer, Qwest did not use the entire system because it did not put the customer computer into service.<sup>47</sup> Absent vicarious liability for customer actions, Qwest could not be a user of the system under Section 271(a).<sup>48</sup> Similar to the defendant in *Akamai*, Qwest provided software and technical assistance to the customer, but the customer made the final decision to install and operate that software on the customer's computer.<sup>49</sup>

At first blush, it might seem that *Centillion* offers a solution to difficulties posed by *Akamai*. Relying on *Centillion*, one could simply include a set of system claims to parallel any multi location method claims. Although this might make it possible to ultimately identify "user" infringers under Section 271(a), one should remember that those users in *Centillion* were the individual customers. Suing a multitude of such user infringers would typically be impractical, and a patentee would likely be relegated to arguing induced or contributory infringement by another party.

<sup>35</sup> *Id.* at 1285, 97 USPQ2d at 1702.

<sup>36</sup> *Id.*, 97 USPQ2d at 1702.

<sup>37</sup> *Id.*, 97 USPQ2d at 1702.

<sup>38</sup> *Id.*, 97 USPQ2d at 1702.

<sup>39</sup> *Id.*, 97 USPQ2d at 1702.

<sup>40</sup> *Id.*, 97 USPQ2d at 1702.

<sup>41</sup> *Id.*, 97 USPQ2d at 1702.

<sup>42</sup> *Id.*, 97 USPQ2d at 1702.

<sup>43</sup> *Id.*, 97 USPQ2d at 1702.

<sup>44</sup> *Id.*, 97 USPQ2d at 1702.

<sup>45</sup> *Id.*, 97 USPQ2d at 1702.

<sup>46</sup> *Id.* at 1286, 97 USPQ2d at 1703.

<sup>47</sup> *Id.*, 97 USPQ2d at 1703.

<sup>48</sup> *Id.* at 1286-87, 97 USPQ2d at 1703.

<sup>49</sup> *Id.* at 1287, 97 USPQ2d at 1703.

## Does the Claim Really Require Multiple Parties?

Some claims that appear to be multi-location or multi-party claims might be amenable to a construction that results in a single infringer. In *SiRF Technology Inc. v. International Trade Commission*,<sup>50</sup> the patents at issue were directed to GPS technology. The appellant (SiRF) manufactured and sold GPS chips that were incorporated into end-user devices and that allowed such end-user devices to compute position using the GPS satellite system.<sup>51</sup> One of the claims at issue recited steps that included "receiving satellite ephemeris at a first location," "communication [sic] the satellite ephemeris to a mobile GPS receiver at a second location," and "processing satellite signals received at the mobile GPS receiver using the ephemeris. . . ."<sup>52</sup> Another of the claims recited "receiving satellite signals," "transmitting the formatted data to a remote receiver unit," and "at the remote receiver, representing said formatted data in a second format supported by the remote receiver."<sup>53</sup>

The "receiving" and "communication" (or "transmitting") steps were performed by a SiRF-operated server.<sup>54</sup> The "processing" and "representing" steps, however, were performed by a chip that resided on the end-user device.<sup>55</sup>

Of course, the chip performing those steps at the end-user device was made by SiRF.<sup>56</sup> The end users could not modify the functionality of those chips.<sup>57</sup> Nevertheless, one might think that steps performed by those chips would be attributable to the parties who had possession (and presumably ownership) of the devices that incorporated those chips. The Federal Circuit did not see things that way, however. The court noted that once the technology was enabled, SiRF's chips and software automatically perform the disputed steps.<sup>58</sup> According to the court, only SiRF's actions were involved in the "processing" and "representing" steps, and thus SiRF performed all the limitations of (and directly infringed) both claims.<sup>59</sup>

*SiRF* was decided before *Akamai* or *Centillion*. The Federal Circuit expressly stated in *SiRF* that it did not reach the question of joint infringement,<sup>60</sup> however, and thus *SiRF* would presumably be unaffected by *Akamai*. *SiRF* did not address "use" infringement of system claims, and its holding may thus be unaffected by *Centillion*. Whether the holding of *SiRF* would ever extend beyond the facts of the *SiRF* case remains to be seen.

<sup>50</sup> 601 F.3d 1319, 94 USPQ2d 1607 (Fed. Cir. 2010) (79 PTCJ 755, 4/16/10).

<sup>51</sup> *Id.* at 1328, 94 USPQ2d at 1610.

<sup>52</sup> *Id.* at 1329, 94 USPQ2d at 1614 n. 7 (italics added).

<sup>53</sup> *Id.*, 94 USPQ2d at 1614 n.8 (italics added).

<sup>54</sup> *Id.* at 1329-30, 94 USPQ2d at 1610. SiRF argued that the "communication" and "transmitting" steps also required the participation of other parties. *Id.* at 1330, 94 USPQ2d at 1614. The Federal Circuit rejected this argument and held that SiRF performed those steps because SiRF initiated the process of communicating/transmitting. *Id.*, 94 USPQ2d at 1615.

<sup>55</sup> *Id.* at 1330, 94 USPQ2d at 1610.

<sup>56</sup> *Id.* at 1331, 94 USPQ2d at 1615.

<sup>57</sup> *Id.*, 94 USPQ2d at 1615.

<sup>58</sup> *Id.*, 94 USPQ2d at 1615.

<sup>59</sup> *Id.*, 94 USPQ2d at 1615-16.

<sup>60</sup> *Id.* at 1329, 94 USPQ2d at 1614.

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### *Conclusion*

More than ever before, one should think carefully before defining an invention by components residing and/or steps performed at different locations. If the differently-located components or steps implicate mul-

iple legal entities, it may be difficult to establish those entities as joint infringers. There are some multi-party circumstances where only one party's actions may be relevant for infringement purposes. Such scenarios may be relatively limited, however.