

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

KOVE IO, INC.,

*Plaintiff,*

v.

AMAZON WEB SERVICES, INC.,

*Defendant.*

Case No. 1:18-cv-8175

**AWS'S RENEWED MOTION FOR JUDGMENT AS A  
MATTER OF LAW UNDER RULE 50(b)**

Alan M. Fisch  
*alan.fisch@fischllp.com*  
R. William Sigler  
*bill.sigler@fischllp.com*  
Jeffrey M. Saltman (*pro hac vice*)  
*jeffrey.saltman@fischllp.com*  
Lisa Phillips (*pro hac vice*)  
*lisa.phillips@fischllp.com*  
Brandon P. Evans (*pro hac vice*)  
*brandon.evans@fischllp.com*  
FISCH SIGLER LLP  
5301 Wisconsin Avenue NW Suite 400  
Washington, DC 20015  
202.362.3500

Ken K. Fung (*pro hac vice*)  
*ken.fung@fischllp.com*  
FISCH SIGLER LLP  
400 Concar Drive  
San Mateo, CA 94402  
650.362.8200

*Attorneys for Amazon Web Services, Inc.*

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**Rules**

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Under Rule 50(b), a party may renew a motion for judgment as a matter of law that wasn't granted before the case was submitted to the jury. Rule 50 states that JMOL is appropriate when "a party has been fully heard on an issue" and "a reasonable jury would not have a legally sufficient evidentiary basis to find for that party." As the Seventh Circuit has explained:

[T]he question is simply whether the evidence as a whole, when combined with all reasonable inferences permissibly drawn from that evidence, is sufficient to allow a reasonable jury to find in favor of the plaintiff. A mere scintilla' of evidence, however, will not suffice.<sup>1</sup>

Here, AWS requested JMOL under Rule 50(a) before the case was submitted to the jury.<sup>2</sup>

As detailed below, AWS respectfully renews that motion.

### **ARGUMENT**

#### **I. THE COURT SHOULD GRANT JMOL BASED ON KOVE'S FAILURE TO PROVE INFRINGEMENT.**

To prove literal infringement, the patent owner must show that the accused device contains every limitation in the asserted claims. As the Federal Circuit explained in *Laitram Corp. v. Rexnord, Inc.*, "failure to meet a single limitation is sufficient to negate infringement."<sup>3</sup> Here, at the beginning of trial, Kove narrowed its asserted claims to the following:

	<b>'170 Patent</b>	<b>'640 Patent</b>	<b>'978 Patent</b>
For DDB	Claims 1, 2	Claim 18	Claims 10, 17, 30
For S3	Claims 1, 2	--	Claims 17, 30

Because Kove failed to meet its burden of proving infringement of these claims, JMOL of non-infringement should be entered in favor of AWS.

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<sup>1</sup> *Hall v. Forest River, Inc.*, 536 F.3d 615, 619 (7th Cir. 2008) (internal quotation and citation omitted).

<sup>2</sup> Dkt. 870.

<sup>3</sup> 939 F.2d 1533, 1535 (Fed. Cir. 1991).

**A. KOVE FAILED TO SHOW THAT THE ACCUSED PRODUCTS SATISFY THE “LOCATION SERVER,” “LOCATION,” AND “IDENTIFIER” LIMITATIONS.**

As AWS argued at summary judgment, the asserted claims require “locations,” “identifiers,” and “location servers” that “maintain[ ] a set of identifier/location mappings that are modified or returned in response to location request messages from clients.”<sup>4</sup> Kove failed to present evidence at trial that would allow a reasonable jury to find that the accused products satisfy all these requirements. For example, Dr. Goodrich agreed at trial that S3 couldn’t infringe if the KFCs and BMs aren’t location servers.<sup>5</sup> But given the undisputed record evidence, BMs and KFCs can’t be location servers for several reasons. AWS’s witnesses with first-hand knowledge repeatedly testified that the Blindex is analogous to a label.<sup>6</sup> It therefore may be an identifier, but not a “location.”<sup>7</sup> Further, AWS’s expert confirmed that it doesn’t “specif[y] where data ... is stored.”<sup>8</sup> Dr. Goodrich merely offered a conclusory opinion that an iNode comprising a Blindex satisfies the location requirement,<sup>9</sup> which could not suffice as a matter of law. As a result, S3 didn’t satisfy the “location” requirements of all asserted claims. And it didn’t satisfy the claims’ “location server” requirements either, as the claimed location servers must maintain identifier/location mappings.

Dr. Goodrich also asserted at trial that a “primary key” in DDB satisfies the identifier requirement of all asserted claims.<sup>10</sup> Dr. Goodrich acknowledged that DDB’s “partition key” isn’t a unique identifier, so Kove’s case depended on this “primary key” theory.<sup>11</sup> But as AWS has

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<sup>4</sup> Dkt. 484 at 11, 35 (constructions); *see also* Dkt. 686 at 22–29 (AWS motion).

<sup>5</sup> Tr. at 803:12–16.

<sup>6</sup> *See, e.g.*, Tr. at 1285:19–1286:6.

<sup>7</sup> *See, e.g.*, Tr. at 1285:19–1286:6.

<sup>8</sup> *See, e.g.*, Tr. at 1487:14–1489:3.

<sup>9</sup> *See, e.g.*, Tr. at 606:22–607:3.

<sup>10</sup> *See, e.g.*, Tr. at 636:23–639:8.

<sup>11</sup> *See, e.g.*, Tr. at 636:15–638:9.

explained, the Metadata Nodes that Dr. Goodrich contended were “location servers” don’t use or interact with a “primary key.”<sup>12</sup> And AWS’s witnesses testified at trial, without contradiction, that DDB doesn’t use a “primary key” at all.<sup>13</sup> Dr. Goodrich’s testimony and referenced exhibits never showed that Metadata Nodes used the “primary key,” much less maintained mappings of primary keys to locations. This absence of trial evidence is consistent with Dr. Goodrich’s previous deposition testimony that the primary key “doesn’t go to the metadata node.”<sup>14</sup> As such, DDB had no unique identifier mapped to a location in the Metadata Nodes, as the claims require.

Further, DDB engineer Mr. Rath testified that partitions can contain hundreds of thousands of items.<sup>15</sup> According to the claim construction, the claims all require a “location” that “specifies where data pertaining to the entity identified by the identifier is stored.” Identifying a partition, with hundreds of thousands of data items associated with different data entities, is insufficient to specify where data for any given entity—i.e., the “data pertaining to the entity identified by the identifier”—is stored. Thus, DDB also had no location and no unique identifier mapped to a location in the Metadata Nodes, as the asserted claims all require.

Accordingly, as Dr. Grama explained, the accused components of DDB and S3 failed to satisfy the construed “location server” and “identifier” or “location” requirements of all asserted claims.<sup>16</sup> Further reasons supporting that conclusion were detailed in the section of AWS’s

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<sup>12</sup> Dkt. 686 at 27–29; *see, e.g., id.* at 28 (“[P]rimary keys aren’t used by or sent to the MetaData Nodes”).

<sup>13</sup> Tr. at 1420:1–4; *see also id.* at 1420:5–1421:15 (explaining that AWS uses this term on simplified documents for customers, because it’s familiar and doesn’t reveal how the system actually works).

<sup>14</sup> *E.g.*, Dkt. 687 at ¶ 89.

<sup>15</sup> Tr. 1400:1–8.

<sup>16</sup> Tr. at 1477:15–20, 1479:1–6, 1480:10–14 (addressing DDB); Tr. at 1508:18–23, 1509:19–21, 1513:20–1514:2, 1515:2–5 (addressing S3).

summary judgment motion that this Court didn't reach.<sup>17</sup> That section explained, among other things, that S3 doesn't infringe because the source code shows that the Blindex labels a "volume" of data, but none of its fields provide a location.<sup>18</sup> And Dr. Goodrich admitted at deposition that he conflated "partition ID" with "primary key" because the alleged location servers in DBB don't use an identifier, much less maintain "identifier/location mappings," as the claims require.<sup>19</sup> AWS respectfully incorporates that portion of its briefing here.<sup>20</sup>

For all these reasons, no reasonable jury could find that S3 and DDB satisfy at least the "location," "identifier" and "location server" requirements of all asserted claims. Hence, JMOL of non-infringement is warranted.

**B. KOVE FAILED TO SHOW THE REQUIRED NON-HIERARCHICAL STRUCTURE.**

All asserted claims require a "plurality of location servers,"<sup>21</sup> which this Court construed as "location servers in a non-hierarchical configuration."<sup>22</sup> As AWS has explained, S3 and DDB are both configured hierarchically.<sup>23</sup> The undisputed testimony of those with first-hand knowledge of the systems confirmed that. And no reasonable jury could've concluded otherwise, as Kove's

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<sup>17</sup> See Dkt. 686 at 22–29 (relevant section of motion); Dkt. 714 at 22–29 (reply in further support); Dkt. 739 at 24 ("AWS provides non-infringement arguments under both Judge Pallmeyer's original claim construction and AWS's own new proposed construction.... Because the Court partially adopted AWS's claim construction proposal,... [it will] only address AWS's argument regarding whether these alleged location servers employ a 'non-hierarchical' configuration.").

<sup>18</sup> Dkt. 686 at 24–25 (citing Dr. Grama, source code, and deposition testimony); *see also id.* (further noting that Dr. Goodrich failed to address that the Blindex stays the same, even when location of data changes, and that Kove distinguished claims from "static" location associations in "tree structures").

<sup>19</sup> *Id.* at 27–28.

<sup>20</sup> Dkt. 686 at 22–29; Dkt. 714 at 22–29.

<sup>21</sup> '170 claims 1 and 2 (system comprising "plurality of data location servers"); '640 claim 18 ("network having a plurality of data location servers"); '978 claim 10 (system "having a plurality of location servers"); '978 claims 17 and 30 ("system having a plurality of location servers").

<sup>22</sup> Dkt. 739 at 19.

<sup>23</sup> *E.g.*, Dkt. 686 at 16–21; Dkt. 714 at 17–22.

expert testimony failed to show how either accused product satisfies the non-hierarchical requirements of the asserted claims. Dr. Goodrich confirmed that his opinions relied on the alleged location servers in a particular grouping or region as the required “plurality of location servers.”<sup>24</sup> Not only did this contradict what Kove argued at summary judgment,<sup>25</sup> but, more importantly, Dr. Goodrich admitted at trial that the location servers in what he defined as the “plurality of location servers” in a non-hierarchical configuration wouldn’t have all the information necessary to satisfy this Court’s claim constructions.<sup>26</sup>

Specifically, this Court defined “non-hierarchical” to mean that “any given server is able to return either the requested information or information useable by the client to locate the server with the requested information.”<sup>27</sup> This Court further explained what “non-hierarchical” means in its summary judgment order, based on the many times that Kove described this required structure in the reexaminations and contrasted it with a hierarchical structure.<sup>28</sup> Regardless of how this Court decided any disputes over claim construction and jury instructions, it can’t have intended to define “non-hierarchical” as broadly as Kove and Dr. Goodrich interpreted it at trial. Kove and Dr. Goodrich interpreted “information useable by the client to locate the server with the requested information” to include any information necessary to contact the next layer in a hierarchy, whenever an alleged location server needs to send a request up the chain to a different layer of servers

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<sup>24</sup> *E.g.*, Tr. at 763–764.

<sup>25</sup> Dkt. 699 at 27–28 (Kove arguing that it “contrasted [Oracle]’s ‘hierarchical tree’ with the [asserted claims], which contain limitations allowing: [a] client [to] send a query to any server in the network—not just its local region, as taught by Oracle”).

<sup>26</sup> *See, e.g.*, Tr. at 841:2–4; 812:18–20.

<sup>27</sup> Dkt. 876 at 17.

<sup>28</sup> Dkt. 739 at 18–19 (noting that “Kove repeatedly described what ‘non-hierarchical’ meant” and “also provided multiple descriptions of servers in hierarchical configurations”).



and other components.<sup>29</sup> That describes a *hierarchical* structure, not the “non-hierarchical” structure that Kove repeatedly touted to the Patent Office to preserve validity.<sup>30</sup>

JMOL is warranted because Kove failed to show that “any given server is able to return either the requested information or information useable by the client to locate the server with the requested information,” as all claims require.

**C. KOVE FAILED TO SHOW THAT THE ACCUSED PRODUCTS SATISFY OTHER REQUIREMENTS OF THE ASSERTED CLAIMS.**

Kove also failed to show how the accused products satisfy many other requirements of the six asserted claims.<sup>31</sup> In particular, JMOL is warranted based on the “client” and “redirect” limitations. This includes the requirement in ’640 claim 18 that the location servers “transmit[ ] a redirect message to the client” that contains information “to calculate a location of a different data location server” that has the desired information and the similar requirement in ’978 claim 10.<sup>32</sup> Nowhere in the record was there evidence of the required transmission “to the client.” And Dr. Grama explained that Kove also failed to submit evidence showing that DDB used redirect messages as required by these claims.<sup>33</sup>

JMOL as to all asserted claims is also warranted under this Court’s construction of “plurality of location servers.” This Court held that the required “non-hierarchical” structure means

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<sup>29</sup> See, e.g., Tr. at 572:20–23 (“Q. What if the KFC doesn’t have the iNode in its cache? A. Then we have an alternative scenario where it’s still going to get it, but it first has to go to the Brick Manager level.”).

<sup>30</sup> See, e.g., Dkt. 739 at 19 (“A construction allowing location server structures that include those with hierarchical configurations would inappropriately permit Kove to recapture claim scope that it disclaimed during examination.”).

<sup>31</sup> Due to Kove’s continued assertion of 17 total claims until shortly before trial, a claim-by-claim analysis wasn’t possible at the summary judgment phase of the litigation.

<sup>32</sup> See also Dkt. 484 at 35 (construing “client” in ’640 claim 18 as “a network-attached component (which may be software or hardware) that initiates update or lookup of identifier/location mappings from a location server with location request messages”).

<sup>33</sup> See Tr. at 1477:10–12, 1479:7–11. These claims were only asserted against DDB.

that “any given server” in the claimed plurality “is able to return either the requested information or information useable by the client to locate the server with the requested information.”<sup>34</sup> Even assuming that construction is correct, which Amazon disputes, Kove failed to present any evidence of any transmission from location servers to a client, much less location servers returning “information useable by the client to locate the server with the requested information.”<sup>35</sup> Relatedly, Dr. Grama explained that the caches of KFCs, the accused S3 location servers, didn’t store a copy of every iNode, so—wholly apart from the “non-hierarchical” requirement—they couldn’t meet the claims’ requirement that each identifier be associated with at least one location.<sup>36</sup>

JMOL is also warranted on the hash function limitations. As Dr. Grama explained, DDB didn’t apply a hash function to the partition key (the accused identifier) and thus didn’t meet the “based on a hash function” requirement of ’170 claims 1 and 2.<sup>37</sup> Likewise, he explained that S3 didn’t infringe these claims because KFCs didn’t distribute iNodes according to a hash function.<sup>38</sup> Kove failed to rebut this testimony with that of its own expert.

Further, for largely the same reasons that Kove failed to show the required “non-hierarchical” structure, as discussed above, Kove also failed to show that the accused products satisfy many specific claim limitations related to that structure. In arguing against the Court’s finding that Kove disclaimed non-hierarchical structure, Kove previously asserted that many of these limitations “expressly” describe or require the same structure.<sup>39</sup> For example, Kove failed to show that

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<sup>34</sup> *E.g.*, Dkt. 739 at 18 (quoting Dkt. 687-32 at 40). As noted, the Court adopted this definition of “non-hierarchical” based on a Kove sentence that expressly distinguished Kove’s non-hierarchical structure from Oracle’s “tree” structure. Dkt. 687-32 at 40.

<sup>35</sup> *See also* Dkt. 484 at 35 (construing “location server”).

<sup>36</sup> Tr. at 1505:9–10, 1508:19–20.

<sup>37</sup> Tr. at 1512:1–18, 1515:3–5.

<sup>38</sup> *E.g.*, Tr. at 1513:16–19.

<sup>39</sup> *See, e.g.*, Dkt. 699 at 25, 31, 36.

KFCs meet the requirement of the '170 claims that “at least one of the plurality of data location servers includes location information associated with the identifier string,” and the requirement of '978 claims 17 and 30 for “storing the received location in a location store at the first data location server, the location store comprising a plurality of identifiers, each identifier associated with at least one location, wherein the received location is associated with the received identifier in the location store.” In particular, to meet the “non-hierarchical” structure requirement, Dr. Goodrich relied on any arbitrary grouping of two or more KFCs to constitute the claimed “plurality.”<sup>40</sup> Yet, when it came to what each location server in the plurality must be “enabled” to do under this Court’s construction, he relied on the entire fleet of KFCs, plus other layers of components (e.g., the BMs).<sup>41</sup> Dr. Goodrich admitted that “KFCs don’t store location information for every request.”<sup>42</sup> And he never showed that any KFCs in what he identified as a “plurality” would satisfy the above-quoted limitations of the '170 and '978 claims, requiring each location server to include certain information or have certain capabilities (e.g., the '170 claims’ requirement that “at least one of the plurality of data location servers includes location information associated with the identifier string”). As such, JMOL is warranted on these claims for similar reasons as the additional “non-hierarchical” requirement, addressed above.

Likewise, for largely similar reasons, Kove failed to show that DDB met the requirement of '640 claim 18 that the redirect message “contains information” “to calculate a location of a different data location server” that “contains the location string” and '978 claim 10’s requirement

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<sup>40</sup> *E.g.*, Tr. at 521:18–522:24 (improperly relying on '978 specification to suggest that one cluster of “four servers” would qualify as a “non-hierarchical” structure, even if within larger “hierarchical configuration”); *see also id.* at 523:11–14 (opining that “we don’t have to listen to all of these arguments about whether or not this is hierarchical, that’s hierarchical,” because of “the definition we got from the Court”).

<sup>41</sup> *E.g.*, Tr. at 572:20–573:9.

<sup>42</sup> Tr. at 840:12–14.

that “the redirect message comprises information for finding a location server having location information related to the desired identifier.” In addition, Kove failed to show that S3 and DDB met the asserted ’978 claims’ requirement that each location server contains a “unique set of location information of an aggregate set of the location information.”

Kove also failed to show that S3 and DDB satisfied ’978 claim 17 and 30’s requirement that each location server “transfer[s] a portion of the identifiers and associated locations to a second data location server when a performance criterion of the first location server reaches a predetermined performance limit.” Mr. Rath gave undisputed testimony that any transfer in DDB was based on engineers using their technical judgment to determine whether to transfer data.<sup>43</sup> Dr. Grama confirmed that DDB didn’t transfer data according to a predetermined performance limit, and couldn’t infringe ’978 claims 17 and 30.<sup>44</sup> And as Dr. Grama also confirmed, Kove similarly failed to show that S3 transferred iNodes, as required by ’978 claims 17 and 30.<sup>45</sup>

Accordingly, no reasonable jury could’ve found that AWS infringed these claims.

**D. NO REASONABLE JURY COULD RELY ON DR. GOODRICH’S OPINIONS CONTRADICTING THE SOURCE CODE AND UNDISPUTED TESTIMONY OF AWS WITNESSES.**

In *Wechsler v. Macke Int’l Trade Inc.*, the Federal Circuit held that a defendant was entitled to JMOL where the patent owner’s “expert presented little more than conclusory evidence.”<sup>46</sup> Here, Dr. Goodrich confirmed at trial that he relied on others to review AWS’s source code and draft the source code appendices to his report.<sup>47</sup> Yet, the opinions he presented to the jury consisted largely of conclusory statements that the source code, or publicly available documents about the

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<sup>43</sup> See Tr. at 1432:13–1433:19.

<sup>44</sup> Tr. at 1482:7–10, 1510:13–16.

<sup>45</sup> E.g., Tr. at 1508:13–15.

<sup>46</sup> 486 F.3d 1286, 1294 (Fed. Cir. 2007).

<sup>47</sup> See, e.g., Tr. at 763–764.

benefits of the accused products, confirm his infringement opinions.<sup>48</sup> To make matters worse, Kove suggested in closing that the jury should entirely disregard the source code—the best evidence of how the accused products function—because they wouldn’t be able to read it.<sup>49</sup>

Further, Dr. Goodrich testified on rebuttal that he didn’t dispute the testimony of AWS engineers Dr. Vermeulen, Mr. Markle, and Mr. Rath about how S3 and DDB were structured and work. He said that nothing those engineers testified about changed his understanding of how the products operated or whether they infringed, and he repeatedly said he agreed with their testimony on those points.<sup>50</sup> Yet he ignored that these engineers testified that the accused products did *not* operate in the way that he had testified in his direct testimony. For example, after observing Dr. Goodrich’s case-in-chief testimony, Dr. Vermeulen testified that Dr. Goodrich’s portrayal of S3’s structure and operation was incorrect. Indeed, Dr. Vermeulen detailed several examples of Dr. Goodrich’s errors on critical points, including the function of Skynet, the S3 source code for iNodes, the structure of the KFCs, and how S3 uses hashing.<sup>51</sup> As another example, Mr. Rath testified that human engineers use their engineering judgment to decide when to add a new Metadata Node to the DDB system and move data to that node, and that such decisions weren’t based on any predetermined performance criteria.<sup>52</sup> Despite this testimony, which Dr. Goodrich didn’t dispute, Dr. Goodrich concluded that DDB meets the limitations of ’978 patent claims 17 and 30 requiring the transfer of data according to a predetermined performance limit. This is just

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<sup>48</sup> See, e.g., Tr. at 852:13–20 (confirming he didn’t show any source code for “primary key”).

<sup>49</sup> See, e.g., Tr. at 2016:9–11 (“The source code is the best evidence. I agree. Sure is. But guess what? Y’all can’t read it.”), 1957:3–6 (similar).

<sup>50</sup> See, e.g., Tr. at 1741:6–11, 1745:5–8, 1753:9–16.

<sup>51</sup> See, e.g., Tr. at 1300:13–1301:17, 1313:9–15, 1315:16–20, 1321:10–1323:16, 1324:6–1326:8.

<sup>52</sup> See Tr. at 1432:13–1433:19.

the type of conclusory opinion that the Federal Circuit has found insufficient to support a verdict.<sup>53</sup> Accordingly, JMOL of non-infringement is warranted for this reason, as well.

## II. KOVE FAILED TO PROVE DAMAGES.

For the reasons in AWS's Rule 50(a) motion, Kove failed to sufficiently prove damages. To preserve these issues, AWS respectfully reraises them below. These issues, along with the related damages issues arising from the amount and unreasonableness of the verdict, are more fully discussed in AWS's accompanying motion for a new trial.

The patent owner has “the burden of proving the amount of reasonable royalty damages it is entitled to recover.”<sup>54</sup> To do so, the patent owner may not rely on speculation. As the Federal Circuit has explained, patent damages “must not be left to conjecture by the jury. They must be proved, and not guessed at.”<sup>55</sup> Further, a patentee may seek “only those damages that are attributable to the infringing features of the product.”<sup>56</sup> And where, as here, multi-component products are involved, damages awarded for patent infringement “must reflect the value attributable to the infringing features of the product, and no more.”<sup>57</sup> Here, JMOL is warranted based on Kove's failure to prove and properly apportion damages.

At trial, Mr. Bergman failed to explain how he apportioned damages to the allegedly infringing features. For example, Kove provided no evidence as to how the undisputed 99.75% of

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<sup>53</sup> See, e.g., *MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1172 (Fed. Cir. 2015); see also, e.g., *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1353 (Fed. Cir. 2001) (finding that expert opinion citing to “lengthy” technical documents but not explaining how they supported his opinion was conclusory and failed to raise genuine issue of material fact that could warrant denial of summary judgment).

<sup>54</sup> *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1376 (Fed. Cir. 2002).

<sup>55</sup> *Promega Corp. v. Life Techs. Corp.*, 875 F.3d 651, 660 (Fed. Cir. 2017).

<sup>56</sup> *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326 (Fed. Cir. 2014).

<sup>57</sup> *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014).

“get” requests that are served by the request router in DDB infringe or could be the basis for any damages. None of those requests ever go to the Metadata Nodes, the accused location servers. Mr. Bergman not only agreed with the 99.75% but admitted that he didn’t know when formulating his opinions that only a sliver of get requests could result in infringement.<sup>58</sup> Dr. Goodrich’s admissions and Dr. Grama’s testimony further confirmed this 99.75% amount.<sup>59</sup> Despite these admissions that only 0.25% of get requests in DDB could infringe, Mr. Bergman’s apportionment conclusion incorrectly assumed that 100% of get requests—400 times as many—infringe. Kove thus failed to properly apportion damages for DDB. Similarly for S3, Mr. Bergman admitted that he failed to consider how often KFCs in S3 transfer iNodes when attributing damages to the KFC cache based on this allegedly infringing activity.<sup>60</sup>

In addition, Mr. Bergman didn’t explain why he attributed the entire value of S3’s KFC cache to the ’170 claims, ignoring the other functionalities of the KFC cache.<sup>61</sup> For example, he incorrectly assumed that S3’s ability to scale derives solely from infringing features, so his non-infringing alternative omitted S3’s entire index system and required customers to manage their own data.<sup>62</sup> For this reason also, Kove failed to properly apportion damages for S3.

There were also numerous other unexplained errors in Mr. Bergman’s direct testimony. For example, he relied on a “Goldilocks” project document for a large portion of his damages analysis for certain claims.<sup>63</sup> But that document discussed many other features aside from the one

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<sup>58</sup> Tr. at 1203:20–1204:17.

<sup>59</sup> Tr. at 850:24–851:15 (Goodrich); Tr. at 1520 (Grama).

<sup>60</sup> Tr. at 1186:15–16 (“Q. You don’t know how often KFCs transfer iNodes, right? A. I do not.”).

<sup>61</sup> Tr. at 1048–49, 1167:9–1167:20 (testifying that he didn’t know the KFC cache’s technical components or other functionalities, aside from hashing).

<sup>62</sup> Tr. at 1186:21–1187:10 (attributing to Kove’s scaling claims the entirety of the KFC’s ability to scale).

<sup>63</sup> *See, e.g.*, Tr. at 1192:25–1201:11.

that he claimed accounted for the 20% difference in price between Goldilocks and Nearline. AWS witness Christoph Bartenstein thus explained the differences and features that Mr. Bergman failed to consider.<sup>64</sup> And Kove failed to contest that testimony.<sup>65</sup>

Further, Mr. Bergman testified that he employed the “income approach” to determine that the patents’ value to Amazon was \$1.034 billion. And he testified that, in the hypothetical negotiation, the parties would’ve agreed that Kove would receive at least 50%, and up to 100%, of the incremental profits attributable to the use of the patents-in-suit.<sup>66</sup> But apart from listing considerations from the case law, Mr. Bergman didn’t explain to the jury the basis for his opinion that the bargaining split would be 50% or 100%—a range of over \$500 million. Mr. Bergman mentioned various “unquantifiable” considerations, but reciting factors and making “conclusory remark[s] about their impact[ ] on the damages calculation” was not enough to “carefully tie” the facts to his damages estimate, as settled law requires.<sup>67</sup>

For all these reasons, also addressed in AWS’s alternative Rule 59 motion, JMOL is warranted based on damages.

### **CONCLUSION**

JMOL is warranted based on Kove’s failure to prove infringement of multiple elements of each asserted claim. In addition, JMOL is warranted based on Kove’s failure to prove damages. Hence, AWS’s motion should be granted.

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<sup>64</sup> Tr. at 1629:11–24 (discussing the AWS brand, at-launch and platform benefits, and security features).

<sup>65</sup> See also, e.g., Tr. at 1059:10–1061:23 (similar issue in Mr. Bergman’s testimony comparing One Zone and SIA); Tr. at 1615:1–1620:1 (Bartenstein again testifying about differences, without being contested).

<sup>66</sup> Tr. at 1047:14–16.

<sup>67</sup> *Exmark Mfg. Co. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1350 (Fed. Cir. 2018).



Dated: May 8, 2024

Respectfully Submitted,

/s/ R. William Sigler

Alan M. Fisch

*alan.fisch@fischllp.com*

R. William Sigler

*bill.sigler@fischllp.com*

Jeffrey M. Saltman (*pro hac vice*)

*jeffrey.saltman@fischllp.com*

Lisa Phillips (*pro hac vice*)

*lisa.phillips@fischllp.com*

Brandon P. Evans (*pro hac vice*)

*brandon.evans@fischllp.com*

FISCH SIGLER LLP

5301 Wisconsin Avenue NW Suite 400

Washington, DC 20015

202.362.3500

Ken K. Fung (*pro hac vice*)

*ken.fung@fischllp.com*

FISCH SIGLER LLP

400 Concar Drive

San Mateo, CA 94402

650.362.8200

*Attorneys for Amazon Web Services, Inc.*

**CERTIFICATE OF SERVICE**

I hereby certify that on May 8, 2024, I electronically filed the foregoing with the Clerk of the Court for the United States District Court for the Northern District of Illinois, via the CM/ECF system, and thereby also served a copy on all counsel of record.

*/s/ R William Sigler* \_\_\_\_\_

R. William Sigler