

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division

LIMELIGHT NETWORKS, INC.,
Plaintiff,

v.

Civil Action No. 3:15-cv-720-JAG

XO COMMUNICATIONS, LLC,
and AKAMAI TECHNOLOGIES INC.,
Defendants.

OPINION

The parties in this patent infringement litigation each operate a content delivery network designed to accelerate the delivery of information and electronic content over the internet. Each company uses different methods to achieve increased speed and reliability over their respective networks, and they cross-allege patent infringement violations based on their competing products. The parties in this case have submitted expert reports on the technical issues of the patents at issue and the appropriate damages resulting from the alleged patent infringement.¹ To no one's surprise, they each have raised objections to the proposed testimony of the other side's experts.

The parties have moved to exclude testimony of one another's expert witnesses, and the Court entered an Order on these motions on March 13, 2017 (the "Original Order"). (Dk. No.

¹ Limelight originally asserted that Akamai infringed on six of Limelight's patents: Patent No. 7,715,324 (the '324 Patent); Patent No. 8,750,155 (the '155 Patent); Patent No. 8,683,002 (the '002 Patent); Patent No. 8,856,263 (the '263 Patent); Patent No. 9,015,348 (the '348 Patent); and Patent No. 8,615,577 (the '577 Patent). Limelight no longer asserts the '263 Patent and the Court found the '577 Patent invalid at summary judgment. Akamai asserts that Limelight has infringed on five Akamai patents: Patent No. 7,693,959 (the '959 Patent); Patent No. 8,307,088 (the '088 Patent); Patent No. 8,122,102 (the '102 Patent); Patent No. 6,820,133 (the '133 Patent); and Patent No. 7,472,178 (the '178 Patent).

420.) The parties have submitted supplemental briefs on the issues, which the Court addresses in this Opinion.

For the reasons given below, the Court rules as follows:²

1) Dr. Stephen Prowse, the damages expert for the plaintiff, Limelight Networks, Inc. (“Limelight”), may not testify about royalties and license fees for the ‘324, ‘155, 577, and ‘002 Patents.

2) Prowse may testify on the topic of lost profits for the ‘324, ‘155, and ‘002 Patents, although the Court has grave doubts about whether he will be able to create a viable issue to present to the jury for decision.

3) Paul Meyer, the damages expert for the defendant, Akamai Technology, Inc. (“Akamai”), may not testify on damages.

4) The defendant’s technical experts, Meyer, Dr. Samrat Bhattacharjee, and Dr. Nader Mir, may testify on the topics in their expert reports.

I. STANDARD OF REVIEW

Under Federal Rule of Evidence 702, an expert must base his testimony on sufficient facts, use reliable principles and methods, and reliably apply the principles and methods to the facts of the case. See *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993). This standard places a “special obligation upon a trial judge to ensure that any and all [expert] testimony . . . is not only relevant, but reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999) (internal quotations and citation omitted). Further, due to the difficulty in evaluating expert testimony and the risk of misleading a jury, trial courts exercise more control over experts than lay witnesses when weighing the probative value of an expert’s opinion against its potential

² With this Opinion, the Court has issued an Amended Order changing the March 13, 2017 Order.

prejudice. *Daubert*, 509 U.S. at 595. A party must establish the admissibility of its expert's testimony by a preponderance of the evidence. *Maryland Cas. Co. v. Therm-O-Disc, Inc.*, 137 F.3d 782, 783 (4th Cir. 1998).

Successful plaintiffs in patent cases are entitled to “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.” 35 U.S.C. § 284. The plaintiff may show a reasonable royalty by pointing to a royalty paid in a prior license for the technology at issue or for a comparable technology. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1554 (Fed. Cir. 1995) (citations omitted). If such a license does not exist, a party can show a reasonable royalty by looking to the result of a hypothetical negotiation between the parties to license the allegedly infringed technology. Courts also consider the extent to which the infringer has used the patent, the relationship between the parties, and other factors.

II. DISCUSSION

A. *Damages Experts*

The patents in this case form small parts of larger systems that combine dozens, if not hundreds, of patented items or methods. Since the alleged infringement only applies to part of a greater process, the parties' claims raise the issue how to allocate profits or damages among the small parts of a large whole. Judge Learned Hand characterized the problem as “unanswerable.” *Cincinnati Car Co. v. New York Rapid Transit Corp.*, 66 F. 2d 592, 593 (2d Cir. 1933). Notwithstanding Judge Hand's candid and perceptive comment, litigants have come up with formulas and theories to answer the unanswerable question. Most, if not all, of these inventions would be laughed out of court in run of the mill cases. Apparently, not so in patent cases.

The parties in this case have explained that they have to prove damages, that it is a hard thing to do, so we have to resort to the kinds of theoretical concoctions discussed below. Courts

have accepted some of these theories, so this Court will allow testimony about them. But allowing the witness to speak does not mean that his testimony will meet an ultimate burden of proof, or even a burden of going forward. Whatever testimony comes in may not justify submitting an issue to the jury in this case.

1. Limelight's Damages Expert, Dr. Stephen Prowse

a. Reasonable Royalty on Limelight's '324, '155, and '577 Patents

Dr. Stephen Prowse attempts to develop a reasonable royalty for Limelight's '324, '155, and '577 Patents by creating a hypothetical negotiation between the parties to estimate what Akamai would have negotiated to pay Limelight for a license on the patents instead of infringing. The Court must examine this kind of testimony particularly closely, since it relies on an expert's willingness to offer an opinion on what would have occurred in a negotiation that did not occur and never would have occurred, since the parties show no willingness to negotiate.

Prowse uses a potentially admissible bargaining model developed by Dr. Ariel Rubinstein,³ but he impermissibly fails to tie the model to the facts of this case. The Court will not allow Prowse to present his methodology to a jury.

Experts may use economic models to predict the outcome of hypothetical negotiations, but the expert must at least tie the model to the facts of the case. *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1332 (Fed. Cir. 2014) (rejecting a model because “[i]t itself asserts nothing about what situations in the real world fit [its] premises” and stating that “[a]nyone seeking to invoke [a] theorem as applicable to a particular situation must establish that fit”). Further, “[b]eginning from a fundamentally flawed premise and adjusting it based on legitimate considerations specific

³ Ariel Rubinstein, *Perfect Equilibrium in a Bargaining Model*, 50 *ECONOMETRICA* 97, 98-99 (Jan. 1982).

to the facts of the case nevertheless results in a fundamentally flawed conclusion.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011).

As Prowse explained during the evidentiary hearing, he took a number of steps to determine a reasonable royalty for the ‘324, ‘155, and ‘577 Patents. First, Prowse determined how much Akamai benefited from its alleged infringement on Limelight’s patents by computing the portion of Akamai’s revenue attributable to the specific patents at issue. Through his calculations, he determined that 5.9%-8.4% of Akamai’s revenues stemmed from infringement on the ‘324 and ‘155 Patents and that \$63.3 million stemmed from infringement on the ‘577 Patent. Next, Prowse assumed that the parties, as rational actors, would agree to a license to split these revenues so that each party could make more money than it would in the absence of a license. To determine how the parties would split the revenues, Prowse relied on Rubinstein’s model, which essentially stands for the idea that the more patient party in a negotiation will fare better than the less patient party. Prowse determined he could appropriately use the Rubinstein model because the parties are rational economic actors with similar levels of negotiating skill. Prowse then looked to Bloomberg, a financial news and reporting source, for each company’s weighted average cost of capital (“WACC”) as a proxy for each party’s relative patience.⁴ Next, Prowse applied a modified version of the Rubinstein model to predict the results of the hypothetical negotiation and determine how the parties would split Akamai’s benefit from infringing on the ‘324, ‘155, and ‘577 Patents.

⁴ Prowse explained at the evidentiary hearing that companies use WACCs to discount their future cash flows, which shows a company’s patience for future revenues. A company with a higher WACC has a preference for money coming in sooner (and therefore has less patience) than a company with a lower WACC. Even though the companies may use WACCs to value future income streams from their patents, Prowse presented no evidence that the companies use WACCs to value the patents themselves.

Prowse's method is simply fancy guesswork. His use of the Rubinstein model fails Akamai's challenge because it contains almost no basis in facts relevant to this case. Although Prowse's method is not, as Akamai argues, a rule of thumb or a 50-50 split, Prowse does not tether the methodology to the facts of this case. As Prowse explained, many factors go into calculating a company's WACC such as its debt, cash flows, the company's size, and its assets. Using WACC as a proxy for patience in the Rubinstein model does *not* consider the actual stakes in the hypothetical negotiation or even the specific patents negotiated.⁵ As a result, Prowse's model would split the gains in the same way for a fundamental patent at the core of a company's technology and for a piece of technology that the company might consider not at all valuable. Indeed, the model would split any negotiation between the parties in the same way, no matter the stakes. Limelight argues that a jury can determine whether Prowse chose the right WACC in his analysis, but this argument misses the point. It is not that Prowse chose the wrong WACC as an input—it is that using WACCs the way he does has no relationship to the patents in this case and cannot reliably show how the parties would negotiate over these patents. Although Prowse later adjusts his initial split according to the *Georgia-Pacific* factors, he adjusts an unsubstantiated, wholly unreliable number. Such analysis fails to reliably apply the facts of the case to the methodology selected.

⁵ Prowse used a car negotiation as an example, stating that a buyer might need a car that day and would therefore pay more for a car than a buyer with no time constraints. He also says that a dealer may need to sell a car that day to meet a quota and therefore accept a lower price. Prowse's use of quarterly-calculated WACCs, which represent the patience of the corporation as a whole, fails to consider the patience the companies might have in a specific negotiation. For example, a dealership may have met its quota on all but one of its many models for the month, leaving it with a generally high level of patience. If the dealership needed to sell just one particular car model, however, Prowse's application of the Rubenstein model would ignore the impatience for that one car model.

b. Reasonable Royalty on Limelight's '002 Patent

Prowse develops a royalty rate for Limelight's '002 Patent by analyzing Akamai's acquisition of Cotendo. His royalty rate for the '002 Patent, however, fails to adequately apportion the total value of the technology from that acquisition to the technology in the '002 Patent. The Court rejects his analysis because the Federal Circuit has cautioned trial courts against presenting juries with such potentially prejudicial analysis.

When a patent's claims comprise only an individual component of a larger multi-component product, "it is the exception, not the rule, that damages may be based upon the value of the multi-component product." *VirnetX*, 767 F.3d at 1326 (stating that "only where the patented feature creates the basis for customer demand or substantially creates the value of the component parts" may an expert compute damages using the entire market value of an accused product). Damages analysis must therefore apportion the value of a multi-component product attributable to the patent or patent claims at issue as opposed to other patents used in the product. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014) ("The essential requirement is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product."). The Federal Circuit instructs courts and experts to apportion damages by first determining the portion of a company's revenues attributable to the alleged patent (known as the "damages base") and then applying a reasonable royalty to that base. *Id.* at 1227. Courts should avoid using the entire revenues of a multi-component product and adjusting the reasonable royalty rate downward. *Id.*⁶ Adjusting a royalty rate, rather than the base, runs the risk of misleading a jury. *Id.*

⁶ The *Ericsson* court stated:

It is not that an appropriately apportioned royalty award could never be fashioned by starting with the entire market value of a multi-component product—by, for

To determine damages for Akamai's alleged infringement on Limelight's '002 Patent, Prowse looks to Akamai's acquisition of Cotendo. There, Akamai paid Cotendo a 15% royalty on all of the acquired technology, including the '571 Patent which he compares to Limelight's '002 Patent.⁷ Prowse then determines that the '571 Patent acquired in the deal (which he claims is comparable with the '002 Patent), comprised 59% of the total value of Cotendo's technology. He next multiplies 59% by the 15% royalty paid in the acquisition to get 8.9%, which he argues shows that Akamai paid an 8.9% effective royalty for technology comparable to the '002 Patent. Last, Prowse adjusts 8.9% to 8% using certain *Georgia-Pacific* factors and multiplies that royalty by Akamai's accused revenues to reach his final damages result.

The Court rejects Prowse's analysis because he apportions the royalty rate from the prior acquisition rather than determining the appropriate base of damages from Akamai's revenues. Prowse relies on Cotendo's projected revenues from the comparable technology and does not even seek to determine what portion of *Akamai's* accused revenues he can properly attribute to the '002 Patent. He simply looks to Akamai's prior acquisition of a different corporation and assumes that because a comparable patent accounted for 59% of that corporation's projected revenues that the same should apply for Akamai's revenues. This methodological flaw lacks any

instance, dramatically reducing the royalty rate to be applied in those cases—it is that reliance on the entire market value might mislead the jury, who may be less equipped to understand the extent to which the royalty rate would need to do the work in such instances. Thus, where the entire value of a machine as a marketable article is 'properly and legally attributable to the patented feature,' the damages owed to the patentee may be calculated by reference to that value. Where it is not, however, courts must insist on a more realistic starting point for the royalty calculations by juries—often, the smallest salable unit and, at times, even less.

Id. at 1227 (internal citations omitted).

⁷ The parties dispute whether the 15% royalty applied to Cotendo's projected revenues in the absence of the acquisition or to Akamai's projected revenues from use of the technology following the acquisition, but Prowse told the Court that the 15% applied to Cotendo's projected revenues.

foundation and fails to determine the appropriate base of Akamai's revenues attributable to the '002 Patent. As the Federal Circuit stated in *Ericsson*, it is not that an expert may never apportion a royalty award by using the entire market value of a multi-component product, but the risk of misleading a jury remains too high for the Court to admit Prowse's analysis.⁸

c. Lost Profits for Limelight's '324, '155, and '002 Patents

At least on the surface, Prowse's lost profit analysis properly apportions lost profits damages to the patented features driving demand for the products, and he may present his analysis to the jury.

In order to recover lost profits in a patent case, the patentee must "show a reasonable probability that, 'but for' the infringement, it would have made the sales that were made by the infringer." *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995). A plaintiff may show but-for causation by establishing four factors: (1) demand for the patented product, (2) the absence of acceptable noninfringing alternatives, (3) the plaintiff's capacity to exploit the demand, and (4) the amount of profit the patentee would have made. *See Versata Software Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1263-64 (Fed. Cir. 2013) (citing *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978)). Under the second *Panduit* factor, two market factors can cause issues for an expert trying to show an absence of non-infringing alternatives. First, the allegedly infringed product can contain multiple innovations. With "multi-component products, it may often be the case that no one patentee can obtain lost profits

⁸ The Court distinguishes the Federal Circuit's decision in *Commonwealth Scientific and Industrial Research Organization v. Cisco Systems*, 809 F.3d 1295 (Fed. Cir. 2015). In that case, an expert used an actual royalty rate considered by the parties around the time of the hypothetical negotiation as his basis for a royalty rate, and the court determined that the expert did not need to apportion the royalty base. *Id.* at 1301-04. Here, however, Prowse's analysis is not so cut and dry and depends on reverse-engineering a royalty rate using a different company's revenues and a different, even if comparable, technology.

on the overall product—the *Panduit* test is a demanding one. A patentee cannot obtain lost profits unless it and only it could have made the sale—there are no infringing alternatives or, put differently, the customer would not have purchased the [accused] product without the infringing feature.” *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1289 (Fed. Cir. 2017). For example, if the customer would have bought the infringing product without the patented feature or with a different, non-infringing feature, then the patentee cannot establish entitlement to lost profits for that particular sale. *Id.* at 1286.⁹

In this case, Prowse’s report explains why non-infringing alternatives did not exist, and Akamai does not challenge Prowse’s analysis on this issue for the purpose of their motion to exclude. Akamai instead takes issue with Prowse’s failure to determine that Limelight’s patented features drove demand for Akamai’s allegedly infringing products. It is true that “the entire market value rule . . . permits recovery of damages based on the value of the entire apparatus containing several features[] where the patent related feature is the basis for customer demand.” *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989) (citation omitted). That said, “the entire market rule is properly applied when the nonpatented devices cannot be sold without the patented feature.” *Id.* (citing *Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc.*, 761 F.2d 649, 656 (Fed. Cir. 1985)). Prowse’s reports say that Akamai could not sell its products without Limelight’s patented features, so Prowse need not specifically show that the patented features drove demand for the accused products. He also need not further apportion damages to specific components of Akamai’s multi-component products where he has shown a lack of non-infringing alternatives by the defendant.

⁹ The jury in *Mentor* specifically found that no non-infringing alternatives existed and that customers would not have bought the defendant’s products if it removed the accused features. This satisfied *Panduit* step two.

A second possible hurdle to recovering lost profits analysis arises when competitors other than the plaintiff and the defendant sell competing products in the market. In that case, where the other competitors may have also infringed on the plaintiff's patents in order to sell their products, a plaintiff may apportion lost profits based on the patentee's market share to avoid faulting a defendant for another competitor's conduct. *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989) ("In our view, the foregoing discussion compels the conclusion that the district court acted well within its discretion when it awarded damages for Mor-Flo's infringing activity based on State's share of the market."). Prowse performs this analysis in his reports, and he may present his opinions to the jury.

When fully presented in court, Prowse's *Panduit* analysis may not hold water. Something as hypothetical as his reasoning always stands a good chance of having no persuasive value. At this stage, however, Prowse at least says that he has considered the relevant factors, and the Court will allow him to testify.

d. Reasonable Royalty for the '348 Patent

Prowse calculates a reasonable royalty for the '348 Patent by using a non-infringing alternative proffered by Akamai and estimating the cost of implementing that alternative. Specifically, Prowse determines the cost of using Akamai employees to replace the automated "suggested policy feature" contained in the '348 Patent. In his analysis, Prowse looks to the information available to him and makes estimates about the number of employees required to manually implement the patented feature and the cost of those employees. The inputs are certainly imperfect, and Prowse will need to defend his choices, but he uses a straight-forward, reliable methodology and a jury can critique his inputs at trial.

2. Akamai's Damages Expert Paul Meyer

Akamai's damages expert, Paul Meyer, uses prior license agreements and acquisitions to estimate reasonable royalties for all of the patents at issue in this case. The Court grants Limelight's motion to exclude his testimony on all patents because he (1) fails to properly value the prior technology used as his point of comparison, and (2) fails to show technological comparability between the prior technology and the patents here.¹⁰

To determine a reasonable royalty rate for a patented technology, a court may look to prior acquisition agreements and patent license agreements from cases involving sufficiently comparable technology. *VirnetX*, 767 F.3d at 1330. An expert must show that prior agreements contain comparable technology and that the agreements themselves compare economically to the hypothetical license at issue in the present case. *Wordtech Sys. v. Integrated Network Solutions Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010). Courts recognize that such a technique contains a certain built-in uncertainty, but an expert's reliance on a "loose or vague comparability . . . between different technologies or licenses does not suffice." *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012).

For each patent at issue, Meyer looked at prior acquisitions of companies involving comparable technology, prior licenses for comparable technology, or both. Meyer followed a similar methodology for each patent by considering: (1) the market value of the technology involved in the prior license or acquisition; (2) differences between the prior technology, the license for that technology, and the current technology; and (3) other relevant *Georgia-Pacific*

¹⁰ Meyer initially looked to past settlement agreements as a portion of his analysis, but dropped his reliance on those agreements. Limelight also initially took issue with Mir's analysis of settlement agreements, but Meyer no longer relies on Mir in his analysis.

factors. The Court will evaluate his analysis patent-by-patent to determine the admissibility of Meyer's expert report.

a. Limelight's '324 and '155 Patents

The Court excludes Meyer's reasonable royalty analysis for Limelight's '324 and '155 Patents because he fails to show technological comparability between the prior technology and the patents at issue and because his methodology fails to appropriately value the prior technology. To calculate a reasonable royalty for these two patents, Meyer looked at past software licenses for a product called FastTCP as well as Akamai's acquisition of FastSoft, Inc., FastTCP's owner. Meyer's analysis collapses where he (1) indicates in his Rebuttal Report that he actually does not believe that FastTCP compares technologically with the '324 and '155 Patents (Meyer Rebuttal Rep., ¶ 47) and (2) fails to attribute the value from FastSoft's acquisition to the specific technology involved here.

Despite Meyer's testimony at the evidentiary hearing that FastTCP and the '324 and '155 Patents are comparable because they build upon the FastTCP technology and all relate to optimizing speed, his Rebuttal Report says that "the technology claimed in the '324 and '155 patents are distinct from the benefits that FastTCP technology itself provides" and claims that "the '324/'155 patents are not synonymous with speed and performance." (Meyer Rebuttal Rep., ¶ 47). Meyer cannot simultaneously attack Prowse for comparing the technologies and then also compare them for his own analysis. The Court rejects his testimony because he fails to show technical comparability between FastTCP and the patents here.

Next, Meyer looks to the "completed technology" from the Akamai-FastSoft merger as the source of FastTCP's value, but he never attempts to determine which portion of that value he can attribute to the FastTCP as opposed to FastSoft's other technology. In *ActiveVideo*

Networks, Inc. v. Verizon Communications, Inc., an expert looked to a prior license for both software and a number of patents as a source of value for the patents, and the court permitted the expert’s testimony on the patents’ value even though he did not make “any attempt to ‘disaggregate the value’” of certain patents from the software. 694 F.3d 1312, 1333 (Fed. Cir. 2012). Meyer’s failure goes beyond that of *ActiveVideo*’s, however, because Meyer does not look to a discrete license for a patent but instead looks to the vastly more complicated acquisition of an entire company. When looking at all of the technology acquired in the transaction, Meyer makes no attempt to delineate the value attributable to the technology comparable to the ‘324 and ‘155 Patents as opposed to any other technology acquired. This serves as an independent ground for exclusion. To be clear, the Court does not exclude Meyer for his decision to use completed technology as a starting point—it excludes him because his methodology does not account for the value of the patents in this case out of the entire value of completed technology in a prior acquisition.

*b. Limelight’s ‘348 Patent*¹¹

The Court excludes Meyer’s testimony on the ‘348 Patent because he uses an arbitrary method to determine the patent’s value. To value the ‘348 Patent, Meyer looks to Akamai’s acquisition of Blaze Software, Inc. (“Blaze”). In performing his valuation, Meyer uses contemporaneous documents valuing Blaze’s Core and Completed Technology. Meyer then determines that the technologies acquired in the Blaze acquisition and the ‘348 Patent both are technically comparable. Then, because the Blaze acquisition involved four buckets of technology, Meyer divides the total value of the technology by four. Meyer admits that he did

¹¹ As part of its argument on this issue, Limelight initially moved to exclude Meyer’s opinions on the ‘577 Patent. The Court has since found the ‘577 Patent invalid and therefore does not address the patent here.

not perform any analysis to determine whether the four buckets of technology had equal value and stated that nobody ever told him that they had equal value.¹² Despite this methodology, Meyer recognized at the evidentiary hearing that different patents may have highly varying values.¹³ Meyer's even-division method fails because it simply ignores facts in this case that Meyer himself recognizes—that different patents have different values.

c. Limelight's '002 Patent

For the '002 Patent, Meyer again arbitrarily assigns equal value to unknown buckets of technology, and the Court excludes his testimony. As with the other patents, Meyer looks to Akamai's acquisition of Cotendo and uses the value placed on "completed technology" in that acquisition to develop a starting point for the '002 Patent's value. Meyer says that prior to the acquisition, Cotendo had thirteen customer offerings and five patent applications which had not yet issued patents (the technology he compares to the '002 Patent had not yet issued as a patent). Meyer then divides the entire value of the completed technology by thirteen to determine the value of the comparable technology.

Meyer admitted at the evidentiary hearing that he did not have any evidence showing that all thirteen customer offerings had the same value. Even worse, he did not provide an

¹² The Court recognizes that estimating a reasonable royalty involves some level of imperfection and also recognizes district courts have permitted an expert to divide the value of a license equally between a certain number of patents. *See e.g., Oracle America, Inc. v. Google, Inc.*, No. 10-3561, 2012 WL 850705, at *2 (N.D. Cal. Mar. 13, 2012). This case differs from *Oracle*, however, because in that case the expert had information about the relative value of the 22 patents in that case, whereas Meyer admits that he lacks any information about the other technologies.

¹³ At the hearing, Meyer made an analogy to a carton of eggs, finding it reasonable to assume that each egg within the carton had equal value in the absence of other information. Meyer, however, acknowledges that different patents can have vastly different values. Because he did not perform any analysis of the other patented technology involved in the prior transaction, Meyer values the closed carton without opening it to see if any eggs are broken, spoiled, or made of gold. This methodological flaw lacks reliability and Meyer cannot present it to a jury.

explanation for why he can (1) reasonably assign Cotendo's *unissued* patent the same value as an established offering or (2) assign the unissued patent the same value as one of the 13 offerings without needing to divide the total completed technology by 18—the total number of offerings plus patent applications. This analysis fails to tie its methods to the facts of the case and the Court must exclude it from trial.

d. Akamai's '959 and '088 Patents

For the '959 Patent, Meyer again uses an arbitrary method to assign value to buckets of patents even though he admits he lacks any knowledge about them. The Court excludes this testimony. Meyer estimated a reasonable royalty for the '959 Patent by looking at a prior license between Akamai and the Massachusetts Institute of Technology ("MIT"), which licensed a number of technologies, including the '959 Patent.¹⁴ Meyer values the total license at forty million dollars. Meyer evenly split the forty million by four because the MIT-Akamai license involved four buckets of technology.

Just as with the '348 and '002 Patents, Meyer acknowledges that he does not know the value of the other technologies at issue and says that he did not attempt to independently value that technology. Meyer also recognizes that the value of the patents in each bucket could vary widely in their value. Exacerbating his flaw, Meyer also allots all ten million dollars to the '959 Patent despite the six other patents in that bucket. Meyer does this because Akamai considers the '959 Patent to be fundamental to its products, but he acknowledges that the bucket contains at least one other fundamental patent. In this instance, Meyer inexplicably divides the value of the license by four in one instance (where he had no indication as to the value of the other three buckets), yet fails to further apportion value to the patents within the \$10 million bucket even

¹⁴ The Court also excludes his testimony valuing Akamai's '088 Patent, which Meyer values in the same way as the '959 Patent.

though he *did* have an indication about the value of other patents within that bucket. This misstep goes beyond a mere failure to aggregate value within a license as in *ActiveVideo*. Instead, it is an internally inconsistent methodology that acts counter to the facts at Meyer's disposal.

e. Akamai's '133, '178, and '102 Patents

Meyer's royalty analysis for the '133, '178, and '102 Patents, which uses prior acquisition agreements to estimate damages, also fails to meet the *Daubert* standards.

For these patents, Meyer looks to past acquisitions as sources of value for comparable technology.¹⁵ At the beginning of his analysis, Meyer refers to technology acquired in fourteen prior Akamai transactions and assigns the transaction as one either targeted at (1) increasing Akamai's customer base ("scale"), (2) increasing Akamai's product offerings ("product growth"), or (3) improving current technology ("technology tuck-ins"). Next, Kit Knox, Akamai's Vice President of Media Engineering, looked at the technology in each prior transaction and determined that it "related to" one or more of three content delivery network services: delivery, performance, and/or storage. For the '133, '178, and '102 Patents, Meyer determines whether the technology relates to delivery of data, performance of the network, or storage, and then uses the value of the prior transactions as a means of estimating damages.

As stated above, damages experts may only rely on prior license agreements or acquisitions that are comparable to the hypothetical license created for the purpose of estimating damages. *Wordtech Sys. v. Integrated Network Solutions Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010). Meyer admits that he is not a technical expert, yet relies on conversations with non-

¹⁵ In the course of his analysis, Meyer also compares the technology in a few of these prior acquisitions with the '959 and '088 Patents. For the same reasons as stated here, those comparisons fail.

expert Knox as the basis for his technological comparability conclusions. Notably, Meyer does not—as experts are permitted to do—use Knox’s statements as the basis for his own opinion on technical comparability. Instead, Meyer relies upon Knox’s comparability conclusions without providing any explanation as to how he made them or why they are reliable. Meyer provides the Court with nothing more than the *ipse dixit* of a non-expert to support his damages analysis. The jury would have no way to evaluate the comparability analysis, and the Court cannot allow Meyer to provide the jury with unsupported technological testimony about which Meyer lacks any knowledge and provides no detail.

Further, even if Meyer could appropriately rely on Mr. Knox, his analysis fails because, as with other patents, he provides no reliable method to apportion the value of “completed technology” from the prior acquisitions to any specific patent applications relevant here. The Court grants Limelight’s motion to exclude Meyer’s opinions on reasonable royalties for these patents.

B. Technical Experts

Akamai offers several technical experts to testify about characteristics of the technology in this case and the similarities and differences between Akamai’s current system and other systems.

1. Dr. Samrat Bhattacharjee

The Court rejects Limelight’s challenges to Dr. Bhattacharjee’s testimony. Limelight says that Bhattacharjee: (1) fails to support his analysis regarding Limelight’s ‘002 Patent and the technology at issue in Akamai’s acquisition of Cotendo; (2) fails to support his conclusion that the Limelight ‘577 Patent is void for obviousness; and (3) fails to support his conclusions

regarding non-infringing alternatives for the Limelight '348 and '002 Patents. As the Court stated at the initial *Daubert* hearing, these remain fact issues for a jury to decide.

First, Bhattacharjee says that the '002 Patent is not as closely related to the patents in the Akamai-Cotendo acquisition as argued by Limelight's expert, Dr. Kevin Almeroth. Bhattacharjee, however, explains his comparability analysis by first comparing the four patent applications at issue in Cotendo and then determining that the '571 Patent involved in the Cotendo acquisition contains broader claims than the '002 Patent and involves fewer steps. Bhattacharjee may present this analysis to the jury who can then judge the weight of his testimony.

Second, Bhattacharjee adequately supports his opinion that Limelight's '577 Patent is invalid for obviousness. A patent that either combines elements of prior art or implements a variation of prior art in a way that would be deemed obvious to one skilled in the art is invalid. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 395, 418 (2007). An expert opining on obviousness may not rely on mere conclusions, but must state "some articulated reasoning with some rational underpinning." *Id.*; *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008). Bhattacharjee's report first explains why he believes that certain prior art anticipates the '577 Patent's claims. He then demonstrates why, even if no single piece of prior art alone anticipates the claims, combining elements from prior art still anticipates the '577 Patent. In his opening and rebuttal report, Bhattacharjee goes through the claims contained in the '577 Patent, the Court's claim construction order, and the prior art to compare the technology and come to his conclusions. This analysis provides sufficient explanation for admissibility.

Third, Bhattacharjee adequately supports his opinions on the non-infringing alternatives for the '348 and '002 Patents. A key part of determining a reasonable royalty under *Georgia*

Pacific “is whether the accused infringer had acceptable non-infringing alternatives available to it at the time of the hypothetical negotiation.” *Fresenius Med. Care Holdings, Inc., v. Baxter Int’l, Inc.*, 2006 WL 1646113, at *1 (N.D. Cal. June 12, 2006) (citation omitted). For the ‘348 Patent, Bhattacharjee looks to the deposition testimony of multiple Akamai employees to analyze Akamai’s use of a “Suggested Policy” feature and explains that disabling the feature could serve as a non-infringing alternative. For the ‘002 Patent, Bhattacharjee may properly rely on statements from Akamai employees as facts used to develop his opinion on non-infringing alternatives for the patent. *Daubert*, 509 U.S. at 592 (explaining that an expert may offer opinions “not based on first-hand knowledge”). A jury may consider the weight of his evidence and any possible prejudice that could result from Bhattacharjee relying on Akamai employees when drawing his conclusions.

2. *Dr. Nader Mir and Paul Meyer*
As Experts on Non-Obviousness of Akamai’s ‘088 and ‘959 Patents

Mir and Meyer adequately demonstrate a nexus of commercial success between Akamai’s products and the ‘088 and ‘959 Patents to survive Limelight’s *Daubert* challenge. “[A] nexus must be established between the merits of the claimed invention and the evidence of commercial success before that evidence may become relevant to the issue of obviousness.” *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004). An increase in sales following the introduction of a patented feature may also demonstrate a nexus between the patent and commercial success. *Rambus Inc. v. Hynix Semiconductor Inc.*, 254 F.R.D. 597, 602 (N.D. Cal. 2008).

Meyer and Mir discuss Akamai’s success following the introduction of the ‘959 and ‘088 Patents and the value added from those patents into the industry. Such explanations establish a sufficient nexus to argue the non-obviousness of the patents due to commercial success


following their introduction. Further, Mir states that the market had a long-felt need for each patent based on his expertise and knowledge about the content delivery network market and its development. He may present this testimony and his reasoning behind it to a jury. The Court has ordered the parties to agree to three to four articles showing industry praise for Akamai's innovations, which Mir and Meyer say contain the '088 and '959 Patent innovations as fundamental for the innovation's creation.

III. CONCLUSION

For the reasons stated above, the Court grants in part and denies in part Akamai's motion to exclude the expert testimony of Dr. Steven Prowse. The Court grants the motion in all respects except Prowse's lost profits analysis. Prowse may also testify as to a reasonable royalty for Limelight's asserted '348 Patent based on the Court's *sua sponte* review of Prowse's analysis on that issue. The Court grants in part and denies in part Limelight's motion to exclude Paul Meyer, Dr. Samrat Bhattacharjee, and Dr. Nader Mir. The Court grants the motion as to Meyer's damages opinions and denies the motion as to all other matters.

The Court shall enter an appropriate Amended Order. Let the Clerk send a copy of this Opinion to all counsel of record.

Date: February 2, 2018
Richmond, VA



John A. Gibney, Jr.
United States District Judge