IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF KANSAS

Plaintiff, v. Case No. 11-2684-JWL COMCAST CABLE COMMUNICATIONS LLC, et al., Defendants. SPRINT COMMUNICATIONS COMPANY L.P., Plaintiff, v. Case No. 11-2684-JWL Case No. 11-2686-JWL Case No. 11-2686-JWL Defendants.	SPRINT COMMUNICATE COMPANY L.P.,	TIONS)	CONSOLIDATED CASES
COMCAST CABLE COMMUNICATIONS LLC, et al., Defendants. SPRINT COMMUNICATIONS COMPANY L.P., Plaintiff, v. Case No. 11-2686-JWL TIME WARNER CABLE, INC., et al.,		Plaintiff,)	
LLC, et al., Defendants. Defendants. SPRINT COMMUNICATIONS COMPANY L.P., Plaintiff, v. Case No. 11-2686-JWL TIME WARNER CABLE, INC., et al.,	v.)	Case No. 11-2684-JWL
SPRINT COMMUNICATIONS COMPANY L.P., Plaintiff, v. Case No. 11-2686-JWL TIME WARNER CABLE, INC., et al.,		MMUNICATIONS))	
COMPANY L.P., Plaintiff, v. Case No. 11-2686-JWL TIME WARNER CABLE, INC., et al.,)		Defendants.)))	
v.) Case No. 11-2686-JWL) TIME WARNER CABLE, INC., et al.,)		ΓIONS)))	
TIME WARNER CABLE, INC., et al.,)		Plaintiff,)	
)	v.)	Case No. 11-2686-JWL
Defendants.)	TIME WARNER CABLE	E, INC., et al.,)	
		Defendants.))	

MEMORANDUM AND ORDER

These patent cases, consolidated for pretrial purposes, brought by plaintiff Sprint Communications Company L.P. ("Sprint"), come before the Court on various motions to exclude expert testimony.¹ As more fully set forth below, the Court rules as follows: Sprint's motion to exclude testimony by TWC expert Putnam (Doc. # 159 in Case No.

¹The Court refers to the defendants in Case No. 11-2684 collectively as "Comcast" and the defendants in Case No. 11-2686 collectively as "TWC". Sprint's suit against Cable One, Inc., previously consolidated with these cases, has been resolved.

11-2686) is **granted in part and denied in part**. Sprint's motion to exclude testimony by Comcast expert Davis (Doc. # 893 in Case No. 11-2684) is **denied**. Sprint's motion to exclude testimony by defense expert Houh, filed in both cases (Doc. # 867 in Case No. 11-2684; Doc. # 137 in Case No. 11-2686), is **denied**. Sprint's motion to exclude testimony by Comcast expert Min (Doc. # 896 in Case No. 11-2684) is **denied**. Defendants' separate motions to exclude testimony by Sprint expert Rao (Doc. # 872 in Case No. 11-2684; Doc. # 134 in Case No. 11-2686) are **granted in part and denied in part**.

I. <u>Governing Standards</u>

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court instructed that district courts are to perform a "gatekeeping" role concerning the admission of expert testimony. *See id.* at 589-93; *see also Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 147-48 (1999). The admissibility of expert testimony is governed by Rule 702 of the Federal Rules of Evidence, which states:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

In order to determine that an expert's opinions are admissible, this Court must

undertake a two-part analysis: first, the Court must determine that the witness is qualified by "knowledge, skill, experience, training, or education" to render the opinions; and second, the Court must determine whether the witness's opinions are "reliable" under the principles set forth in *Daubert* and *Kumho Tire*. *See Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 969 (10th Cir. 2001). The rejection of expert testimony is the exception rather than the rule. *See* Fed. R. Evid. 702 advisory committee notes. The district court has "considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable." *See Kumho Tire*, 536 U.S. at 152.

II. Sprint's Motion to Exclude - Putnam (TWC)

In Case No. 11-2686, Sprint moves to exclude certain opinions by TWC's damages expert, Jonathan Putnam. The Court grants the motion in part and denies it in part, as set forth below.

A. Reliance on TWC's Purchase of Equipment

In one of his analyses, Dr. Putnam opined that the best royalty determination would be based on the sales by third-party vendors to TWC of certain equipment, the use

²The law of the regional circuit—in this case, the Tenth Circuit—governs procedural issues not unique to patent law. *See Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390-91 (Fed. Cir. 2003). Thus, the Court applies Tenth Circuit law concerning the admissibility of expert testimony. The Court applies Federal Circuit law concerning substantive matters unique to patent law. *See Revision Miliarty, Inc. v. Balboa Mfg. Co.*, 700 F.3d 524, 525 (Fed. Cir. 2012).

of which by TWC allegedly infringed Sprint's patents. Sprint argues that Dr. Putnam improperly looked to the market for the equipment instead of focusing on TWC's market for its VoIP services. Sprint argues that by focusing on the equipment costs, Dr. Putnam failed to follow the statutory requirement of damages of a reasonable royalty "for the use made of the invention by the infringer." *See* 35 U.S.C. § 284.

The Court rejects this argument for exclusion of Dr. Putnam's opinions based on his use of equipment purchases. The statute requires a reasonable royalty for the use of the invention, but it does not require that the royalty be measured in any particular way. In this case, Dr. Putnam tied the equipment costs to a hypothetical negotiation between the parties, the point of which would be to determine a royalty for the use of the invention. Sprint has not cited any authority suggesting that Dr. Putnam's approach is not appropriate, and in fact, courts have sanctioned the use of third-party component sales in the determination of a royalty. *See, e.g., GPNE Corp. v. Apple, Inc.*, 2014 WL 1494247, at *11-12 (N.D. Cal. Apr. 16, 2014); *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609, at *12-18 (N.D. Ill. Oct. 3, 2013).

Sprint appears to argue in its motion that TWC's expert was required to base his royalty determination on TWC's revenues or profits earned in the market for VoIP services. As TWC points out, however, the value of the end product may not be used, but rather value must be apportioned to the patented invention. *See LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67-68 (Fed. Cir. 2012) (discussing Entire Market Value Rule and requirement that damages must be based on the smallest salable patent-

practicing unit (SSPPU)). In its reply, Sprint clarified that it was not arguing that TWC's entire profits must be used, but it was merely arguing that there must be a proper apportionment. There is no requirement, however, that an expert must perform that apportionment by starting from an infringer's entire profits (as Sprint suggests should have taken place here). Sprint also argues that the identification of an SSPPU is not appropriate in this case because TWC did not sell a multi-component product. There is no dispute, however, that TWC's VoIP services included non-infringing features, and Sprint concedes that apportionment is necessary here. Dr. Putnam has attempted to apportion value to the patented invention by looking at the equipment that allegedly performed the infringing method, and TWC has not cited any basis for this Court to find that methodology to be unreliable.³

Sprint also argues that Dr. Putnam's analysis ignores several of the *Georgia-Pacific* factors that address the infringer's revenues and profits, but there is no requirement that an expert consider any or all of those factors, *see Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 31 (Fed. Cir. 2012), and Dr. Putnam did consider the factors at any rate. The Court also rejects Sprint's argument that the use of the equipment costs improperly caps the value of the use of the invention, as Dr. Putnam was merely attempting to determine a reasonable royalty in this case. The Court denies Sprint's motion to exclude Dr. Putnam's analysis on this basis.

³Sprint has not offered any expert evidence that such a methodology is not sound.

B. Assumption That Sprint Would Have Agreed to a License

Sprint also challenges Dr. Putnam's assumption that Sprint would have entered into a license agreement with Cisco, the third-party vendor. Sprint points to the fact that in 1998 it entered into a license agreement with Cisco for Sprint's component patents, but that agreement did not include the architecture patents at issue in this case. The Court concludes, however, that Sprint's willingness to enter into a license agreement at any particular time presents a question of fact for the jury. The fact that Sprint chose not to enter into a license agreement at that time does not establish as a matter of law that it would never have done so under any circumstances. Accordingly, Dr. Putnam is not precluded from offering his opinion concerning a hypothetical license negotiation involving Sprint, TWC, and Cisco.

Sprint also argues that Dr. Putnam's assumption runs afoul of this Court's ruling in *Sprint Communications Co. L.P. v. Vonage Holdings Corp.*, 2007 WL 2572417 (D. Kan. Sept. 4, 2007) (Lungstrum, J.), in which the Court ruled that the Sprint-Cisco license agreement was not relevant to the determination of a reasonable royalty for the different patents at issue in the present case. *See id.* at *4-6. Dr. Putnam does not rely on the Sprint-Cisco agreement, however; rather, he cites the negotiations preceding that agreement, which he contends provides evidence of Sprint's willingness to license the architecture patents. Thus, the Court rejects that basis for exclusion as well.

C. Reliance on Sprint-Bellcore Agreement

In a footnote, Sprint contends that Dr. Putnam impermissibly relied on a 1998

agreement between Sprint and Bellcore. In his report, Dr. Putnam stated that he based his royalty determination on a range of royalty rates, including the 2 percent rate from the Bellcore agreement. Sprint argues that the Bellcore agreement is not sufficiently comparable to the present circumstances. TWC responds that Sprint's argument "completely misses its mark" because Dr. Putnam has derived his royalty rate solely from the equipment purchases and certain adjustments, and omission of that agreement would not change his damages analysis. Thus, TWC does *not* disagree that the Bellcore agreement is not sufficiently comparable to inform Dr. Putnam's royalty determination. Accordingly, the Court grants Sprint's motion to the extent that Dr. Putnam will not be permitted to cite the Bellcore agreement as a basis for his royalty opinion.

D. <u>Dr. Putnam's "Factual and Legal Conclusions"</u>

Finally, Sprint argues that Dr. Putnam's report improperly includes various "factual and legal conclusions." The Court rejects this argument. Dr. Putnam quite appropriately stated facts supporting his opinions and factual assumptions on which those opinions were based. Sprint will be able at trial to challenge and attempt to undermine the underlying factual assertions. In its reply, Sprint complains that TWC will attempt to use Dr. Putnam's testimony to speculate and to bolster the credibility of other witnesses and evidence. Any such objection may be raised at trial, however, in the context of actual testimony by Dr. Putnam.

Sprint also objects to various "legal conclusions" by which Dr. Putnam purportedly offers interpretations of contract terms. Again, however, Dr. Putnam was

entitled to discuss terms of contracts if relevant to his opinions, and Sprint has not argued that any particular "interpretation" by Dr. Putnam was in fact erroneous. The Court thus rejects this basis for exclusion.

III. Sprint's Motion to Exclude - Davis (Comcast)

In Case No. 11-2684, Sprint moves to exclude certain opinions by Comcast's damages expert, Julie Davis. The Court denies this motion.

A. Reliance on Equipment Purchases; Assumption of a License

In seeking the exclusion of Ms. Davis's opinions, Sprint makes the same arguments concerning her reliance on equipment purchases in determining a reasonable royalty and her assumption that Sprint would have entered into a license agreement with Cisco. The Court rejects those arguments for the same reasons stated above with respect to Dr. Putnam's opinions. Whether a hypothetical negotiation would include consideration of the equipment vendors' profits presents an issue for the jury. Similarly, the Court concludes that Sprint's objections to Ms. Davis's reliance on Sprint's former dealings with Cisco and Sprint's internal valuation go to the weight of her opinions and not to their admissibility.

B. <u>Apportionment of Profits</u>

In a brief argument, Sprint also challenges Ms. Davis's apportionment opinions with respect to two pieces of equipment, in which Ms. Davis relied on opinions by another expert, Paul Min. Dr. Min concluded that 63 of 77 functionalities were not

related to the patented invention and that the functionalities were not all equal in value, so he conservatively apportioned 50 percent to the patents. Ms. Davis then applied that apportionment percentage in her own opinions. Sprint argues that the 50 percent figure was impermissibly arbitrary because neither Dr. Min nor Ms. Davis valued each patented functionality. The Federal Circuit has noted, however, that the apportionment process "may involve some degree of approximation and uncertainty." *See VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1328 (Fed. Cir. 2014). Dr. Min's report makes clear that he did consider the particular functionalities, and his estimate therefore is not arbitrary. The Court rejects this basis for exclusion.

C. Sprint-Bellcore Agreement

Finally, Sprint seeks to exclude Ms. Davis's reliance on the Bellcore agreement, on the basis that the agreement is not comparable. The Federal Circuit has discussed the use of prior license agreements to determine a reasonable royalty as follows:

We have held that in attempting to establish a reasonable royalty, the licenses relied on by the patentee in proving damages must be sufficiently comparable to the hypothetical license at issue in suit. When relying on licenses to prove a reasonable royalty, alleging a loose or vague comparability between different technologies or licenses does not suffice. However, we have never required identity of circumstances; on the contrary, we have long acknowledged that any reasonable royalty analysis necessarily involves an element of approximation and uncertainty. Thus, we have cautioned that district courts performing reasonable royalty calculations must exercise vigilance when considering past licenses to technologies *other* than the patent in suit, and must account for differences in the technologies and economic circumstances of the contracting parties.

See VirnetX, 767 F.3d at 1330 (citations and internal quotations omitted) (emphasis in

original). The court further explained those standards in a subsequent case as follows:

This court has recognized that licenses may be presented to the jury to help the jury decide an appropriate royalty award. Prior licenses, however, are almost never perfectly analogous to the infringement action. For example, allegedly comparable licenses may cover more patents than are at issue in the action, include cross-licensing terms, cover foreign intellectual property rights, or, as here, be calculated as some percentage of the value of a multi-component product. Testimony relying on licenses must account for such distinguishing facts when invoking them to value the patented invention. Recognizing that constraint, however, the fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility. In each case, district courts must assess the extent to which the proffered testimony, evidence, and arguments would skew unfairly the jury's ability to apportion damages to account only for the value attributable to the infringing features.

See Ericsson, Inc. v. D-Link Sys., Inc., 773 F.3d 1201, 1227-28 (Fed. Cir. 2014) (citations omitted). In VirnetX, the court summarized its prior caselaw by noting that it had previously rejected reliance on licenses with "no relationship to the claimed invention" or any "discernible link to the claimed technology," and licenses from "vastly different situations" or with unknown subject matter; but that it had upheld awards based on reliance on prior license agreements that differed from the situations at bar in various ways that could be addressed by cross-examination and considered by jurors. See VirnetX, 767 F.3d at 1330-31 (citing cases).

In arguing that the Bellcore agreement is not comparable, Sprint identifies various differences in circumstances. Comcast notes that the Bellcore agreement involved the same technology, and it further notes that the Bellcore agreement was not a settlement agreement, and thus its use does not implicate the same concerns involved in a

comparison to an agreement reached after litigation. *See Laser Dynamics, Inc.*, 694 F.3d at 77. As the Federal Circuit has made clear, even in the case of settlement agreements, an identity of circumstances is not required, and the Court cannot conclude that the circumstances of the Bellcore agreement are so different from the present circumstances to render the comparison unreliable. This issue of comparability is therefore for the jury. Accordingly, the Court denies the motion for exclusion of Ms. Davis's opinion in which she relies on the Bellcore agreement.

IV. Sprint's Motion to Exclude - Houh (both cases)

Comcast and TWC have designated Dr. Henry Houh as an expert in support of their assertions that Sprint's patents are invalid. By a single motion filed in both cases, Sprint seeks to exclude expert testimony by Dr. Houh. The Court denies the motion to exclude.

A. <u>Compliance with Rule 26</u>

Sprint argues that Dr. Houh's entire testimony should be excluded because his expert report does not comply with Fed. R. Civ. P. 26. In his report, Dr. Houh opined that Sprint's ten patents-in-suit are invalid as anticipated under 35 U.S.C. § 102 or as obvious under 35 U.S.C. § 103, based on 11 different prior art references. In Appendix 1 to the report, comprising 256 pages, Dr. Houh discussed each of the 11 references. In Appendix 2 to the report, Dr. Houh proceeded claim-by-claim through the ten patents, and for each claim, he cited particular sections within the reference discussions in

Appendix 1 that he opined made the patents invalid as anticipated or obvious. Sprint argues that the report is inadequate because Dr. Houh did not directly tie all relevant portions of the prior art references to each particular patent claim, with the result that some portion of a cited section may also contain analysis irrelevant to the particular claim with the citation.

The Court rejects this argument for exclusion. Sprint has not cited any authority requiring an expert report in the form that it suggests. Dr. Houh did undertake a claim-by-claim analysis, and for each claim he identified particular analyses within his discussion of particular prior art references to support his opinions. Thus, his report contains a complete statement of his opinions and the bases and reasons therefor, as required by Fed. R. Civ. P. 26(a)(2)(B). As defendants and Dr. Houh explained, various terms and concepts are repeated throughout the patent claims, and Dr. Houh's attempt to streamline his report by discussing how those concepts are present in the various prior art references and by then referring to those discussions for each claim appears reasonable. The fact that the resulting discussion of each patent claim may not be as clear as Sprint would like does not render the entirety of Dr. Houh's testimony inadmissible.⁴ The Court cannot conclude that Dr. Houh's report is so vague or confusing to constitute a violation of Rule 26 or to warrant exclusion.

⁴The Court notes that Sprint had ample opportunity during its two-day deposition of Dr. Houh to clear up any confusion regarding portions of the cited sections from Appendix 1 that may be irrelevant to particular patent claims.

B. The Com21 System

In the alternative, Sprint requests exclusion of testimony by Dr. Houh concerning three of his prior art references: the Com21 system, the Vision O.N.E. system, and the Incite system.

With respect to the Com21 system, Sprint first argues that Dr. Houh improperly relied on seven cited references dated after Sprint's asserted priority dates of May 5, 1994 (Group I patents) and June 1994 (Group II patents) for the relevant patents. Although Dr. Houh used a Sprint priority date of September 8, 1995 (the filing date) for the Group II patents, Sprint relies on June 1994 as the date of conception of the invention. Sprint notes that neither Dr. Houh nor defendants' other experts have rebutted Sprint's expert's opinion concerning the June 1994 date, and Sprint thus argues that that date must be used as undisputed. Sprint, however, has not identified any authority requiring defendants to provide expert testimony to dispute the date of conception, which date therefore presents a question of fact for trial (Sprint has not sought summary judgment on the issue). Thus, there is no basis to preclude Dr. Houh from offering opinions based on a September 1995 priority date for the Group II patents.

Moreover, and regardless of the pertinent priority dates, Sprint has not cited any authority that would preclude defendants' expert from citing or relying on post-priority-date references or documents. *Cf. Sonoscan, Inc. v. Sonotek, Inc.*, 936 F.2d 1261, 1264 (Fed. Cir. 1991) (district court was entitled to rely on post-priority-date quotation in invalidity analysis). Certainly, a reference that is not prior to the relevant date cannot

serve as an invalidating prior art event. Documents and other evidence from a subsequent date, however, could certainly be relevant to invalidity issues.⁵ Moreover, the Court cannot conclude at this stage that any of the cited evidence should be excluded under Fed. R. Evid. 402 or 403. The Court thus rejects this basis for exclusion.

Similarly, the Court rejects any argument for exclusion based on the fact that some cited documents may not have been publicly known or available. Although the invention must have been available to the public prior to the relevant date, Sprint has not identified any requirement that all evidence relating to the invalidity inquiry must have been publicly available. Again, the relevant distinction is that the expert is relying on the cited evidence not as the prior art events themselves, but merely as evidence supporting his opinions about the asserted prior art events.

Finally, Sprint argues that Dr. Houh has not shown that the Com21 system actually existed before 1995 or that the public evidence taught all of the patents' limitations. These are disputes with the substance of Dr. Houh's opinions, however, which matters Sprint may address in cross-examination and in argument at trial. Dr. Houh has supported his opinions concerning the Com21 system as prior art with evidence and analysis; thus, those opinions are not without basis, and exclusion of those opinions at this stage is not warranted. The Court denies the motion to exclude Dr.

⁵For instance, subsequent evidence may properly show that the invention was conceived at a particular (prior) time, or that the invention was eventually reduced to practice, or that the inventor acted diligently in the interim, or that the invention did practice all of the limitations of the patent-in-suit.

Houh's opinions relating to the Com21 system as prior art.

C. The Vision O.N.E. System

The Court reaches the same conclusion with respect to Sprint's argument that Dr. Houh's opinions concerning the Vision O.N.E. system as prior art should be excluded. Again, Dr. Houh's reliance on post-priority-date or non-public evidence is not necessarily improper and thus does not provide a basis for exclusion. Sprint argues that Dr. Houh has not established that this system in fact qualifies as invalidating prior art, but the substance of Dr. Houh's opinions presents a question of fact for trial and does not bear on admissibility. Thus, the Court denies the motion to exclude Dr. Houh's opinions relating to the Vision O.N.E. system as prior art.

D. <u>The Incite System</u>

For the same reasons, the Court rejects Sprint's arguments that, in discussing the Incite System, Dr. Houh relied on post-priority date documents⁶ and failed to show that the prior art addressed all of the patent claims' limitations. Sprint also argues that Dr. Houh's opinion that the Incite system was conceived in 1993 should be excluded. In that respect, Sprint argues that Dr. Houh relied on the inventor's testimony for that opinion, and that such testimony must be corroborated by other evidence. The Court rejects this

⁶A specification on which Dr. Houh relies has one date on the title page, but has a subsequent date on every page. Dr. Houh cited testimony by the author that the later date may have been the date on which the document was printed. There is evidence to support use of the earlier date for the document; thus, the proper date presents an issue of fact for trial.

argument. First, in the cases cited by Sprint, the courts required corroboration for testimony by an inventor who was a party to the lawsuit. *See, e.g., Sandt Tech., Ltd. v. Resco Metal and Plastics Corp.*, 264 F.3d 1344, 1350 (Fed. Cir. 2001). In this case, defendants are not asserting that their own inventions have priority. Moreover, Dr. Houh also relied on various memoranda beginning in January 1994, which Dr. Houh cited as evidence that the invention was conceived before 1994. Accordingly, the Court rejects this basis for exclusion of Dr. Houh's opinions relating to the Incite system as prior art, and the Court denies this motion in its entirety.

V. Sprint's Motion to Exclude - Min (Comcast)

In Case No. 11-2684, Sprint moves to exclude certain opinions by Paul Min, Comcast's patent expert, concerning Sprint's allegation of infringement under the doctrine of equivalents (DOE). In particular, Sprint challenges Dr. Min's opinions concerning the claim requirement of an "interworking unit" in five patents at issue. The Court denies the motion.

Under the DOE, "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *See Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997).

A patent is infringed under the doctrine of equivalents if any difference

between a given limitation in the asserted claim and the corresponding element in the accused device is insubstantial. Alternatively, an element in the accused device is equivalent to a claim limitation if it performs substantially the same function in substantially the same way to obtain substantially the same result.

See Mirror Worlds, LLC v. Apple Inc., 692 F.3d 1351, 1357 (Fed. Cir. 2012) (citations and internal quotations omitted).

Each element contained in a patent claim is deemed material to defining the scope of the patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole. It is important to ensure that the application of the doctrine, even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety.

See Warner-Jenkinson Co., 520 U.S. at 29. "Thus, as a practical matter, the 'all elements' rule informs a doctrine of equivalents analysis by requiring that equivalence be assessed on a limitation-by-limitation basis, rather than from the perspective of the invention as a whole, and that no limitation be read completely out of the claim." See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1017 (Fed. Cir. 2006).

Sprint argues that Dr. Min improperly looked at the patented inventions as a whole in rendering his DOE opinions. In his report, Dr. Min noted that the DOE "is applied to the individual elements of the claimed invention and not the invention as a whole." Sprint argues that Dr. Min nevertheless violated that rule in citing to and relying on the specifications for the particular patents that require an "interworking unit."

The Court rejects this argument. First, reliance on a patent's specification for this

purpose is not prohibited. To the contrary, the Federal Circuit has held that the function-way-result DOE inquiry "focuses on an examination of the claim and the explanation of it found in the written description of the patent." *See AquaTex Indus., Inc. v. Techniche Solutions*, 479 F.3d 1320, 1326 (Fed. Cir. 2007) (internal quotations omitted) (quoting *Vehicular Techs. Corp. v. Tital Wheel Int'l, Inc.*, 141 F.3d 1084, 1090 (Fed. Cir. 1998)).

Second, Dr. Min's citations to the specifications were not improper. In its Markman order in this case, the Court construed "interworking unit" as used in the five relevant patents to mean "ATM interworking multiplexer." See Sprint Communications Co. L.P. v. Comcast Cable Communications LLC, 2014 WL 5089402, at *16-17 (D. Kan. Oct. 9, 2014) (Lungstrum, J.). In doing so, the Court reaffirmed its construction of that term from Sprint's cases against Vonage and Big River, which construction was based on the patent specifications' repeated and consistent description of the invention as limited to the use of an ATM interworking multiplexer. See id. In his report, Dr. Min noted the Court's construction, and he referenced the patents' specification in considering the function of an ATM interworking multiplexer under the function-wayresult test, to allow for a comparison to Comcast's media gateways (the allegedly equivalent element). The fact that Dr. Min referenced the patents' specifications does not mean that he improperly considered the invention as a whole instead of focusing on a particular element. Dr. Min properly considered the claim element of the "interworking unit"—which has been construed to mean an "ATM interworking multiplexer"—and compared that element to an element in Comcast's product.

In the two cases on which Sprint relies, the courts applied the Supreme Court's "all elements" rule, but the cases turn on their particular facts and thus are not helpful here. In Augme Technologies, Inc. v. Yahoo! Inc., 755 F.3d 1326 (Fed. Cir. 2014), the court did not discuss the admissibility of expert testimony, but instead affirmed a summary judgment of non-infringement under the DOE. See id. at 1336-37. The court held that the plaintiff had failed to provide sufficient information to satisfy one prong of the function-way-result test, and in noting that the defendant's expert did not supply the missing evidence, the court stated that the expert had not focused on the relevant comparison of a claim limitation to an element of the accused product (instead of comparing the entire patent to the entire product). See id. The case is not helpful in determining whether Dr. Min had a similar failure here, and in fact, the Court concludes that Dr. Min properly considered the particular elements of the interworking unit and Comcast's media gateways. In France Telecom S.A. v. Marvell Semiconductor Inc., 2014 WL 4272771 (N.D. Cal. Aug. 28, 2014), cited by Sprint, the court held that the plaintiff's expert had merely compared the accused method to a figure in the patent, without any reference to the claims. See id. at *4. The court did not hold or suggest that references to figures or other portions of a patent's written description are never permitted. In this case, Dr. Min did consider the patent claims in discussing the claim element of an interworking unit (construed to mean an ATM interworking multiplexer).

In its motion, Sprint argues that "Dr. Min is not free to create functions from the specification, narrow those functions down to his client's liking, and then opine that

there is no infringement under the very functions he himself conjured up." The Court cannot conclude, however, that Dr. Min has improperly created any limitations not present in the claims. The claims require an interworking unit, which, as construed by the Court, means that the claims require an ATM interworking multiplexer. Dr. Min has based his opinion on his understanding of how one skilled in the art would understand that element and on how the patents describe that element. The court is not persuaded that Dr. Min has imposed a new limitation improperly.

Sprint also appears to argue that Dr. Min's opinions should be excluded because he failed to engage in a limitation-by-limitation analysis. Dr. Min did address the particular claim limitation of an interworking unit, however, and he tied that discussion specifically to each independent claim in the relevant patents in which that limitation appears. Moreover, as Comcast points out, Sprint bears the burden to show infringement here under the DOE; thus, Comcast and its expert need not address every claim and every limitation, but rather they need only show a lack of equivalence on any one element in a claim or a failure on any one prong of the function-way-result test.

Finally, the Court rejects Sprint's argument that Dr. Min's DOE opinions somehow undermine or contradict any construction by the Court. The Court addressed and declined to construe the term "asynchronous communication system," *see Comcast*, 2014 WL 5089402, at *20, but that term does not appear in the "interworking unit" claims at issue in this motion. Sprint tries to tie that ruling to the Court's refusal to limit "asynchronous communication" to ATM communications in the *Vonage* case, but no

party has asked the Court to construe that term in this case. At any rate, Dr. Min's analysis is clearly limited to addressing the "interworking unit" element, which by definition is limited to an ATM interworking multiplexer. The fact that some other claim term may not include a similar limitation does not bear on the proper consideration of the "interworking unit" limitation, and there is no reason to exclude Dr. Min's opinions on this basis. Sprint is free to argue at trial the merits of Dr. Min's opinions, including the depth of his analysis of any particular claim limitation, but the Court cannot conclude that his opinions are so unreliable to require exclusion. The Court denies the motion to exclude Dr. Min's opinions.

VII. Defendants' Motions to Exclude - Rao (both cases)

In both cases, for similar reasons, defendants seek to exclude the expert opinions of Dr. Mohan Rao, Sprint's damages expert. In both cases, Dr. Rao has calculated damages based on a reasonable royalty rate of \$1.37 per subscriber per month for infringement of the seven "Christie Patents"; and a reasonable royalty rate of \$0.13 per subscriber per month for the three "Associated VoP Patents." The Court grants defendants' motions in part and denies them in part, as set forth below.

A. Reliance on Vonage Verdict

Dr. Rao's royalty rate of \$1.37 for the Christie Patents is taken from the jury's September 2007 verdict in a case in which Sprint accused Vonage of infringing some of the Christie Patents. In *Vonage*, the jury found infringement and awarded a reasonable

royalty of five percent of Vonage's VoIP revenues, which figure Dr. Rao translated to \$1.37 per subscriber per month for Vonage. Defendants argue that Dr. Rao should not be permitted to rely on that verdict.

The Court first rejects defendants' argument that an expert may never rely on a jury verdict. The Federal Circuit has not prohibited such reliance, ⁷ and in fact that court has ruled that a prior verdict may be relevant and admissible, including with respect to a hypothetical license negotiation. *See Applied Med. Resources Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1365-66 (Fed. Cir. 2006). Defendants would distinguish that case on the basis that the prior verdict there involved the same parties. Nevertheless, there is no rule prohibiting the consideration of prior verdicts, and district courts have allowed such evidence in some cases. *See 2-Way Computing, Inc. v. Sprint Solutions, Inc.*, 2015 WL 2365648, at *5 (D. Nev. May 18, 2015) ("the court has found no rule that prohibits an expert from considering a jury verdict in his royalty rate calculations if that verdict pertains to a matter that is sufficiently comparable to the instant matter"); *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609, at *33 (W.D. Wis. Dec. 31, 2014) ("jury verdicts can be data points providing a comparable license [rate] for use in

⁷Defendants cite *Johns Hopkins University v. CellPro, Inc.*, 152 F.3d 1342 (Fed. Cir. 1998), but that case is not helpful. In *Johns Hopkins*, the Federal Circuit upheld the district court's exclusion of evidence of a prior liability verdict because that verdict was irrelevant to the issue for which it was offered (willfulness) and because the verdict was premised on an erroneous claim construction. *See id.* at 1362-63. The Federal Circuit did not rule in that case that relevant evidence of prior verdicts could never be considered.

hypothetical negotiations"); *Cook Inc. v. Endologix, Inc.*, 2012 WL 39486814, at *7-8 (S.D. Ind. Sept. 10, 2012) (denying motion to exclude expert's opinion based on reliance on a prior court royalty award involving different parties; rejecting argument that prior award did not result from negotiation).⁷ The Court concludes that, like license agreements, prior verdicts may be relevant if sufficiently comparable to the circumstances in the case at bar.

Defendants next argue that Dr. Rao may not rely on the *Vonage* verdict because of the Federal Circuit's rejection of the 25 percent rule of thumb. In *Uniloc USA*, *Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011), the Federal Circuit held that a 25 percent rule of thumb for determining a reasonable royalty rate is arbitrary and not tied to the facts of the particular case, and that the use of such a figure, even as a starting figure that is adjusted up or down, is not permitted under *Daubert. See id.* at 1317-18. In *Vonage* (prior to the issuance of *Uniloc*), Sprint's expert used the 25 percent rule as a starting point for his calculations, and even though the *Vonage* jury did not award the royalty suggested by Sprint's expert, defendants nevertheless argue that the verdict is therefore tainted under *Uniloc*.

The Court rejects this basis for exclusion. Defendants have not cited any caselaw to support the position that, if an expert offered testimony in a prior case that would be

⁷The fact that district courts have in other instances excluded such evidence on relevance and prejudice grounds (in cases cited by defendants) does not mean that such evidence may never be admissible.

excluded if offered today (because of an intervening ruling that effectively changed the law), then the verdict in that case may not be considered as relevant to a determination of a reasonable royalty rate. Use of such a verdict is *not* the same as allowing an expert improperly to begin his analysis by reference to an arbitrary rule of thumb, especially since it cannot be known whether the prior jury in fact based its own determination on any particular factor. Indeed, in *Uniloc*, the Federal Circuit stressed that its rejection of the 25 percent rule was not intended to limit the application of any of the *Georgia-Pacific* factors, including the consideration of royalties paid by other parties for use of the same invention. *See id.* There is no basis for this Court to rule that the *Vonage* verdict, if sufficiently comparable, may not be considered here.

The Court similarly rejects defendants' argument that the *Vonage* verdict violates the Entire Market Value Rule (EMVR). Defendants argue that the verdict was improperly based on Vonage's entire revenues for its VoIP product. As discussed above, however, other license agreements need not be identical in all ways to the present circumstances, and the same rule reasonably applies to prior verdicts as well. Defendants are free to argue to the jury that the *Vonage* verdict is not a proper comparable for various reasons, but the difference in how that verdict was calculated does not provide a basis for exclusion.

The Court rejects defendants' additional arguments directed to Dr. Rao's reliance on the *Vonage* verdict. Dr. Rao did sufficiently opine that the *Vonage* verdict was comparable, and he did address the particular circumstances of that case. The Court is

not persuaded that the differences between *Vonage* and this case are so vast that consideration of the verdict could not be helpful to the jury, *see VirnetX*, 767 F.3d at 1330-31, and therefore defendants' arguments concerning such differences go to the weight of Dr. Rao's opinions and not to their admissibility.

Nor is the Court persuaded that it should exclude such evidence under Fed. R. Evid. 403. Defendants rely especially on Sentius International, LLC v. Microsoft Corp., 2015 WL 451950 (N.D. Cal. Jan. 27, 2015), in which the court concluded that evidence of a prior court's royalty award was subject to exclusion under Rule 403. See id. at *7. The court stated that admission of such evidence would cause the defendant to relitigate the circumstances of the prior case and would suggest that the defendant is a serial infringer. See id. Sentius is distinguishable on at least two grounds, however. First, in that case, the court ruled that the evidence had little probative value because the prior court, in basing its award on a judgment as a matter of law that reduced a jury award, was not independently determining a reasonable rate, but was instead determining the sufficiency of the evidence to support the jury's award. See id. at *6-7. The Vonage award, on the other hand, does represent a determination of a reasonable royalty, based on the same technology, and thus the probative value is greater in this case. Second, the prejudice is much less here—Vonage involved a different infringer, and thus there is little danger of an improper inference that other parties' products must also have infringed the patents. Defendants argue that the jury in these cases might improperly infer that the patents must be valid because they provided the basis for the prior verdict.

The jury need not be told that validity was at issue in that case, however, and any possible prejudice may be addressed by instruction from the Court. *See Donnelly Corp. v. Gentex Corp.*, 918 F. Supp. 1126, 1134 (W.D. Mich. 1996) (any confusion and unfair prejudice from the admission of evidence of prior litigation may be prevented through appropriate instruction and appropriate questioning of counsel). No mini-litigation is necessary, as the parties may address at trial Vonage's different circumstances just as they would address differences for parties to comparable license agreements. The Court cannot conclude that the probative value of this evidence is substantially outweighed by the danger of unfair prejudice, and it therefore declines to exclude this testimony under Rule 403.8

Finally, the Court rejects defendants' argument that Dr. Rao's identical rate for both defendants (as well as for Cable One, the defendant in the case that has been resolved) improperly imposes an established royalty, as Dr. Rao specifically disavowed consideration of an established royalty. Nor does the Court believe that the use of the same rate in all three cases makes that opinion inherently unreliable. The Court also concludes that the \$1.37 rate and the bases therefor were sufficiently disclosed in Dr. Rao's report, as further explained in his deposition. Accordingly, the Court denies defendants' motion to exclude Dr. Rao's opinions based on a royalty rate of \$1.37 for

⁸The Court also rejects any argument that Dr. Rao impermissibly failed to rely on the post-verdict settlement agreement between Sprint and Vonage. Dr. Rao explained why he favored the verdict over that settlement, and defendants' disagreement with that choice raises an issue for the jury and does not provide a basis for exclusion.

infringement of the Christie Patents.

B. <u>Voiceglo and PAETEC Agreements</u>

In his report's section on "Comparable Agreements," after discussing the *Vonage* verdict and subsequent settlement agreement, Dr. Rao discussed Sprint's settlement license agreements with Voiceglo, PAETEC, Big River, and NuVox, as well as Sprint's agreements with three other companies. In an appendix, Dr. Rao listed the jury award and the five settlement agreements with an effective royalty rate for each (ranging from 5 percent to 1.1 percent). In his report's "Summary of Comparable Agreements," Dr. Rao stated that the jury award provided the "best information" for determining a reasonable royalty; and that the other settlement agreements were informative on issues relating to the form and scope of the license, but that they were "less informative" to his analysis because of various differences from the present circumstances. At his deposition, in response to a question about the basis for his \$1.37 figure, Dr. Rao responded that the figure was supported not only by the *Vonage* verdict, but also by the Voiceglo and PAETEC agreements. Dr. Rao explained that those agreements' royalty rates of 5.0 percent and at least 4.9 percent supported use of the *Vonage* jury award of a 5.0 percent royalty. He further stated that sufficient information was not available to allow him to translate those agreements' percentage rates to monthly per-subscriber rates (like the \$1.37 *Vonage* rate), but that he could perform such translations using Vonage's revenues and subscriber data. Finally, Dr. Rao explained that he relied more on the Voiceglo and PAETEC agreements than on the other agreements because the former

agreements' rates were more consistent with his various analyses and because he did not have as much information concerning the other agreements.

Defendants seek to exclude any opinion by Dr. Rao that the Voiceglo and PAETEC agreements support his reasonable royalty calculation. The Court rejects various arguments by defendants in support of this request. First, the Court cannot conclude that this opinion was not sufficiently disclosed or that Dr. Rao failed to opine that these agreements were comparable. In his report, Dr. Rao stated that these and other "comparable" agreements were relevant to certain issues but less informative than the *Vonage* verdict, and in his deposition he confirmed his opinion that the agreements were comparable and discussed why the Voiceglo and PAETEC agreements were more informative than the other agreements. Thus, defendants have had the opportunity to understand fully Dr. Rao's opinions with respect to the agreements. Second, the Court does not agree that he improperly "cherry-picked" the two agreements, as he explained at his deposition why the other agreements carried less weight. Third, defendants' arguments concerning the different circumstances involved in the Voiceglo and PAETEC agreements go to the weight of Dr. Rao's opinions and not to their admissibility.

The Court does conclude, however, that although Dr. Rao may testify that the Voiceglo and PAETEC agreements support the use of the 5 percent royalty rate from *Vonage*, he may not testify that those agreements support the use of the \$1.37 figure derived from the *Vonage* rate using data particular to Vonage. Dr. Rao did not

sufficiently justify using Vonage's revenue and subscriber data to translate the Voiceglo and PAETEC rates to monthly per-subscriber figures (Sprint did not submit any affidavit by Dr. Rao with its opposition to this motion). Thus, attributing any per-subscriber figure to the Voiceglo and PAETEC agreements' rates would be impermissibly speculative. Defendants' motions to exclude are granted to that extent.

C. Financial Analyses

As a part of his "income approach," Dr. Rao performed various financial analyses in which he determined per-subscriber figures for the particular defendant's actual and expected profits from using the patented technology, the particular defendant's expected cost savings from using the patented technology, and Sprint's actual and expected losses from licensing these patents. Defendants seek to exclude all such opinions by Dr. Rao.⁹

Defendants first complain that Dr. Rao has not sufficiently tied these opinions to his ultimate royalty determination, which was taken from the *Vonage* verdict without adjustment, and that these opinions are therefore irrelevant or should be excluded under Rule 403. The Court rejects these arguments. Dr. Rao explained in his report and his deposition that these analyses support his royalty determination, including by providing a range of possible royalties and by showing that his proffered royalty rate is economically feasible for the parties. The fact that Dr. Rao did not adjust his figure from

⁹In performing his analyses, Dr. Rao relied on opinions by Sprint's expert Christine Hammer, and defendants also seek to exclude the underlying opinions by Ms. Hammer. Because the Court denies the motions to exclude this testimony by Dr. Rao, it also denies the motions as they relate to opinions by Ms. Hammer.

the *Vonage* verdict does not mean that the financial analyses were not relevant to his opinion. The Court concludes that these analyses may be relevant, and defendants may dispute the weight to be given to them at trial.

Defendants also argue that Dr. Rao did not properly apportion his profit and loss and cost figures into patented and non-patented (or infringing and non-infringing) portions, and that his opinions therefore violate the Entire Market Value Rule. It is clear, however, that Dr. Rao did attempt such an apportionment in all of his analyses. Defendants may dispute the manner and results of that apportionment, but such issues go to the weight of the opinions and may be addressed at trial. The Court also rejects defendants' argument relating to Dr. Rao's use of an EBITDA figure in a comparison to Cox's and Comcast's profits. Dr. Rao explained that decision in his deposition, and again the Court concludes that any such dispute does not bear on the admissibility of the opinion. The Court denies the motions to exclude these analyses.

D. \$0.13 Royalty Rate for the Associated VoP Patents

Defendants challenge Dr. Rao's \$0.13 per-subscriber royalty rate for the Associated VoP Patents. As a preliminary matter, the Court does not agree that this opinion should be excluded because of an insufficient disclosure. Defendants concede that the \$0.13 figure was contained in and could be determined from Dr. Rao's report,

¹⁰Sprint also points out in its briefs that the EMVR, which relates to the valuation of the infringer's use of the technology, would apply only to his analysis concerning each defendant's profits.

and Dr. Rao explained that opinion and the bases therefor at length in his deposition.

The Court does agree with defendants, however, that Sprint has not shown that Dr. Rao's \$0.13 figure resulted from application of a reliable method, for a number of reasons. First, Dr. Rao calculated this rate, which was derived from his overall rate taken from the *Vonage* verdict, by assuming that the ratio of overall revenues for the service to revenues specifically apportioned to the patented technology would be the same for VoIP revenues generally (for use with the Christie Patents) and for voice-mail services (the primary feature of the Associated VoP Patents). Although Dr. Rao's deposition testimony is not nearly so clear, Sprint tries to explain this assumption as follows:

Just as the Christie Patents represent the core technology enabling a phone service, the Associated VoP Patents represent the core technology that enables [the defendant's] enhanced features, such as voicemail. Dr. Rao opined that it would be reasonable to model that the patented methods for enabling the enhanced features had the same economic relationship to the patented methods for enabling a phone call that interconnects to the PSTN.

(Footnotes omitted.) Neither Dr. Rao nor Sprint, however, has provided any evidence or explanation to show why such a method would be reasonable in this case. The fact that two different sets of patents both represent "core" technologies used in products or services does not necessarily or reasonably mean that the patented technologies make up the same percentage of the overall products or services. Dr. Rao has not undertaken any analysis to determine the proper allocation for the Associated VoP Patents, nor has he provided any sound basis for using the same allocation from the Christie Patents. Thus,

Dr. Rao's calculation of the \$0.13 figure does not meet the minimum standard of reliability under *Daubert* and the Federal Rules of Evidence.

In addition, Dr. Rao's equation actually yielded a rate of \$0.122321, which Dr. Rao rounded up to \$0.13 to account for the fact that the Associated VoP Patents include features other than voicemail. Again, however, Dr. Rao performed no analysis of the particular features, and he failed to explain why the amount of his rounding was reasonable; thus his opinion assigning an additional \$0.007679 to those features represents impermissible speculation.

Finally, Dr. Rao based his \$0.13 figure on data for voicemail services, but as defendants point out, there is no allegation here that any voicemail service infringed one of the three Associated VoP patents (the '918 Patent). Dr. Rao did not perform any analysis of the particular features relating to that patent. Thus, for that independent reason, Dr. Rao would not be permitted to give an opinion concerning a royalty rate for that patent.

Accordingly, the Court rules that Dr. Rao will not be permitted to offer any expert opinion concerning a royalty rate relating to the Associated VoP Patents, and defendants' motions to exclude are granted to that extent.

E. Opinion Concerning a Subset of the Patents

In his deposition, in response to a question about how he would allocate the PAETEC agreement's royalty rate among the patents at issue in this case, Dr. Rao testified that the Christie Patents were blocking patents, such that any one of the patents

would yield the same royalty rate to allow for use of the patented technology. Defendants now seek to exclude any testimony by Dr. Rao that the royalty would be the same even if only a subset of the patents-at-issue are found to have been infringed. As their sole basis for exclusion, defendants argue that Dr. Rao did not disclose such an opinion in his report. The Court denies the motions to exclude this opinion on this basis. Opposing counsel solicited this opinion by his questioning at the deposition, and Dr. Rao was certainly entitled to give his answer. Defendants had ample opportunity at that deposition to learn of Dr. Rao's opinions concerning this issue.

F. <u>Date of Hypothetical Negotiation with TWC</u>

TWC seeks to exclude Dr. Rao's opinions on the basis that he used the wrong date in considering a hypothetical license negotiation between the parties. Dr. Rao assumed a negotiation taking place in October 2010, based on TWC's launch of its Go It Alone (GIA) service at that time. TWC argues that he should have used a date in 2003 instead. Specifically, TWC argues that, assuming its GIA service infringed Sprint's patents, its pre-2010 services must also have infringed, particularly in light of Dr. Rao's opinion that TWC had no non-infringing alternatives to licensing Sprint's technology. *See LaserDynamics*, 694 F.3d at 75 ("In general, the date of the hypothetical negotiation is the date that the infringement began.").

First, the fact that Dr. Rao did not perform any analysis but instead relied on Sprint's counsel for the 2010 date is not relevant. Dr. Rao may certainly base his opinions on certain assumptions, and Sprint will be obliged at trial to support the

assumption that use of a date in 2010 is warranted here.

Second, the Court concludes that the proper date presents an issue of fact for trial. Sprint cites evidence from its patent expert that it cannot be determined whether TWC actually infringed before 2010. Moreover, that expert opined that TWC's 2010 GIA represented a new product, different from its pre-2010 product, and Sprint has accused only the GIA product of infringement in this case. *See Fujifilm Corp. v. Motorola Mobility LLC*, 2015 WL 1265009, at *3 (N.D. Cal. Mar. 19, 2015) ("The Federal Circuit, as well as courts in this and other districts, have repeatedly and consistently based the hypothetical negotiation date on the start of the activity actually accused of infringement.") (citing cases). Thus, there is no basis to preclude Dr. Rao's reliance on a 2010 date at this time, and the Court denies TWC's motion to exclude on this basis.

IT IS THEREFORE ORDERED BY THE COURT THAT Sprint's motion to exclude testimony by TWC expert Putnam (Doc. # 159 in Case No. 11-2686) is **granted** in part and denied in part, as more fully set forth herein.

IT IS FURTHER ORDERED BY THE COURT THAT Sprint's motion to exclude testimony by Comcast expert Davis (Doc. #893 in Case No. 11-2684) is **denied**.

IT IS FURTHER ORDERED THAT Sprint's motion to exclude testimony by defense expert Houh, filed in both cases (Doc. # 867 in Case No. 11-2684; Doc. # 137

in Case No. 11-2686), is **denied**.

IT IS FURTHER ORDERED THAT Sprint's motion to exclude testimony by Comcast expert Min (Doc. # 896 in Case No. 11-2684) is **denied**.

IT IS FURTHER ORDERED THAT defendants' separate motions to exclude testimony by Sprint expert Rao (Doc. # 872 in Case No. 11-2684; Doc. # 134 in Case No. 11-2686) are **granted in part and denied in part**, as more fully set forth herein.

IT IS SO ORDERED.

Dated this 5th day of December, 2016, in Kansas City, Kansas.

s/ John W. LungstrumJohn W. LungstrumUnited States District Judge