IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

BEDROCK COMPUTER TECHNOLOGIES LLC,	§	
	§	
Plaintiff,	§	
	§	**CASE NO. 6:09-cv-269-LED**
v.	§	
	§	**Jury Trial Demanded**
SOFTLAYER TECHNOLOGIES, INC., et al.	§	
	§	
Defendants.	§	

BEDROCK'S RESPONSE IN OPPOSITION TO DEFENDANTS' COMBINED DAUBERT AND RULE 26(A) MOTION TO EXCLUDE THE EXPERT TESTIMONY OF DR. MARK JONES (DKT. NO. 558)

I. INTRODUCTION

The patent in suit, U.S. Patent 5,893,120 (the "'120 patent") discloses an invention to address the problem of "performance degradation resulting from the accumulation of many expired records" in systems that use hashing with external chaining. *See* '120::2:22-31 (attached as Ex. A.1). Bedrock retained an expert, Dr. Mark Jones,[1] to perform tests on Linux to evaluate the performance benefits, if any, of the '120 patent as it is implemented in infringing versions of Linux. While the technology in this case can be complex at times, Dr. Jones's tests were straightforward. He measured the performance of a server with the infringing code and compared that against his measurements of a server without the infringing code. His results confirm the specification of the '120 patent; specifically, the performance of a Linux server degrades 10-20% when the infringing code is removed. Because the methodology that Dr. Jones employed is sound and because these tests are related to the case at hand, the Defendants' Motion should be denied.

II. ARGUMENT

A. Legal Standards

A ruling on the admissibility of expert testimony, like other evidentiary rulings, is reviewed for abuse of discretion. *See i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010) (citing *Huss v. Gayden*, 571 F.3d 442, 452 (5th Cir. 2009)). "The trial court acts as 'gatekeeper' to exclude expert testimony that is irrelevant or does not result from the application of reliable methodologies or theories to the facts of the case." *Micro Chem., Inc. v. Lextron, Inc.*,

[1] Interestingly, the law firm McDermott Will & Emory, who represents Yahoo in this matter, regularly retains Dr. Jones. *See*, e.g., *Blackboard v. Desire2Learn*, Case No. 9:06-cv-155 (E.D. Tex.); *VirnetX, Inc. v. Microsoft Corp.*, Case No. 6:07-cv-80 (E.D. Tex.); *Digital-Vending Services Int'l, Inc. v. The University of Phoenix et al.*, Case No. 4:09-cv-2490 (E.D. Va.). Apparently, McDermott believes that Dr. Jones forms reliable opinions only for the cases in which they retain him.

317 F.3d 1387, 1391 (Fed. Cir. 2003). Under FED. R. EVID. 702, if expert testimony will help the trier of fact understand evidence or determine a fact in issue, Rule 702 permits such testimony, as long as (i) the testimony is based upon sufficient facts or data, (ii) the testimony is the product of reliable principles and methods, and (iii) the expert has applied the principles and methods reliably to the facts of the case.

The Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals* provided the analytical framework for determining the admissibility of expert testimony. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). *Daubert* delineated a non-exclusive list of factors district courts may use to evaluate expert testimony, but later emphasized that the inquiry is flexible and the analysis depends on the issue, the witness's expertise, and the subject of the testimony. *Daubert*, 509 U.S. at 593-94; *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999); *Micro Chem.*, 317 F.3d at 1391.

Unsound or unscientific methodologies do not pass muster under *Daubert*.[2] However, "[w]hen the methodology is sound, and the evidence relied upon sufficiently related to the case at hand, disputes about the degree of relevance or accuracy (above this minimum threshold) may go to the testimony's *weight*, but not its *admissibility*." *i4i*, 598 F.3d at 852 (emphasis added); *see also Function Media, L.L.C. v. Google Inc.*, No. 2:07-cv-279, 2010 U.S. Dist. LEXIS 3273,

[2] *See*, e.g., *Wells v. SmithKline Beecham Corp.*, 601 F.3d 375, 379 (5th Cir. Tex. 2010) (affirming exclusion of testimony of plaintiff's experts, each of which "baldly state[d] that [defendant's drug] can cause problem gambling," because each expert "admitted that no scientific basis existed to confirm their conclusions"); *Nat'l Bank of Commerce v. Associated Milk Producers, Inc.*, 191 F.3d 858, 863–4 (8th Cir. 1999) (affirming exclusion of expert testimony asserting that the ingestion of spoiled milk caused plaintiff's laryngeal cancer); *United States v. Powers*, 59 F.3d 1460, 1471 (4th Cir. 1995) (affirming exclusion of expert testimony based upon the results of a penile plethysmograph test).

at *5 (E.D. Tex. Jan. 15, 2010) (Everingham, J.) (citing *i4i*, 598 F.3d at 852).[3] Furthermore, as the Supreme Court has noted, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert*, 509 U.S. at 596.[4] As the authorities cited above reaffirm, "the test for exclusion [of expert opinion] is a strict one." *Kopf*, 993 F.2d at 377 (quotation marks omitted).

B. Dr. Jones's Tests Are Reliable and Helpful and Therefore Admissible.

The Accused Instrumentality in this case is the Linux operating system, and the code primarily responsible for infringing is contained within the route cache of Linux. The route cache is part of the networking code of Linux, which is the code responsible for handling IP packets. To arrive at his performance opinions, Dr. Jones applied various loads of IP packets on servers running different Linux code and measured the performance of each one. The Linux code that Dr. Jones tested was: (a) the route cache with the '120 invention (the unmodified, infringing Linux); (b) the route cache without the '120 invention (the proxied, next-best

[3] Significantly, the Federal Circuit's review of the *i4i* district court's admission of an expert's damages testimony was narrowly focused. The appellant in *i4i* waived its right for a review of the damages award for substantial evidence. *i4i*, 598 F.3d at 857. As such, the *i4i* court's analysis was exclusively focused on the admissibility of expert testimony under FRE 702. *Id.* at 852–56.

[4] *See also Holbrook v. Lykes Bros. S.S. Co.*, 80 F.3d 777, 780 (3d Cir. 1996) ("The Federal Rules of Evidence embody a strong and undeniable preference for admitting any evidence having some potential for assisting the trier of fact. Rule 702, which governs the admissibility of expert testimony, specifically embraces this policy, and has a liberal policy of admissibility.") (citations and quotations omitted); *In re TMI Litig.*, 193 F.3d 613, 665 (3d Cir. 1999) ("caution[ing] that the standard for determining reliability 'is not that high'") (citation omitted); *Revlon Consumer Prods. Corp. v. L'Oreal S.A.*, 96-cv-192, 1997 WL 158281, at *2 (D. Del. Mar. 26, 1997) ("The Third Circuit Court of Appeals has adopted a broad interpretation of Rule 702; close calls on the admission of expert testimony are to be resolved in favor of admissibility.").

alternative); and (c) the route cache is disabled. *See* Ex. A.2 at 97. These different versions allowed Dr. Jones to isolate the role of the invention within the Linux code.[5]

Dr. Jones then compared the performance measurements against one another, i.e., (a) vs. (b) and (a) vs. (c), and he then calculated a percentage. These tests will be helpful to the jury for a number of reasons. First, the patent claims certain performance benefits. See '120::2: 22-31. Dr. Jones's tests quantify this benefit. Second, Dr. Jones's tests will help the jury find the appropriate reasonable royalty in light of the cost savings attributable to the Defendants' infringement. Specifically, the percentages from Dr. Jones's tests correspond to the number of servers that the Defendants would have had to buy to offset performance degradation, but for their infringement:

> If a datacenter is required to meet a performance goal of C=N*X and it is designed using N servers each with capability X, then if the capability of servers is reduced to X*(1-Y), then at least N/(1-Y) servers are now required. For example, if Y=0.1 (or 10%), then the number of servers increases by a factor of (1/0.9) or approximately 1.11. The percentages of performance degradation that I calculate in this report correspond to the "Y" of this formula.

Ex. A.1 at 97. Third, the Defendants have repeatedly argued that the accused code comprises a small percentage of the total lines of source code in Linux. *See*, e.g., Dkt. No. 224 at 1 ("0.00005%"). This metric is meaningless in determining the value of an invention, and the jury should be able to hear the true impact of the invention in Linux.

[5] It would have been not enough for Dr. Jones to measure the infringing Linux code against just the proxied, next-best alternative because Linux with the routing cache disabled performs better than the proxied, next-best alternative under certain loads. *See* Ex. A.2 at 100 (the intersecting lines on the graph indicate loads at which one begins performing better than the other).

C. The Defendants' Criticisms of Dr. Jones's Tests Are Meritless and Mostly Go to Weight.

The Defendants offer many criticisms of Dr. Jones's tests, but they do not stop to contemplate which of their criticisms of Dr. Jones's tests go to the weight of the evidence, and which of their criticisms go to his methodology. The Defendants offer only one criticism that actually goes to Dr. Jones's methodology, namely, the issue of the memory leak. The remainder of their criticisms merely go to weight.

1. The Memory Leak

The Defendants make much of the fact that Dr. Jones introduced a memory leak in his tests. The memory leak was created by Dr. Jones when he removed the call to the function *rt_free()*. Dr. Jones was questioned extensively about this in his deposition, yet the Defendants ignore and omit his testimony where he explained how the memory leak is actually a proxy for the next best alternative:

> **Q. Why did you remove rt_free in Line 1126?**
>
> A. I did not want to have the code pay the cost of freeing that record. In the case where during the testing if the code were to identify a chain length that is too long and invalidates the cache, I didn't want it to pay the price of that freeing that occurs there.
>
> **Q. What do you mean "pay the cost or pay the price of freeing that record"?**
>
> A. There is computation time associated with calling that routine and I did not want to have that reflected in the test results.
>
> **Q. Why not?**
>
> A. What I was trying to come up with was something that I thought would be a best case performance scenario if I were to come up with a version that would remove the on-the-fly deletion.
>
> In combination with this mechanism in rt_intern_hash in this version, that when the chain length is too long the Linux decides to go ahead and rebuild the cache, that something has gone wrong and I wanted to come up with a way that I thought would be a reasonable approximation of sort of the best case scenario for doing that.
>
> **Q. Why was the commenting out of 1126 the best way to do that?**

A. The other alternatives that I explored, one would be simply to comment out the removal in Line 1125 of a record from the linked list.

If you do that there is essentially no reasonable way out of this routine. Since you are not removing anything from the chain, it will keep seeing the chain length as too long going back to the invalidated cache again. It will go back up to the top and restart things until it decides to turn the cache off completely.

Another alternative that I explored was to simply remove both of those to do the same removal, but also to disable disability, to rebuild the hash table or that call to do it, that performs worse than what I did as well.

So what I did which I thought would be the best approximation, a sort of best case scenario for invalidating that cache, yet still going on with the operation to put this entry in the cache as well as continuing the operation of the system.

Ex. A.3 at 118:20-120:24. Dr. Jones then summarized these tests in unequivocal terms:

Q. Was it your intention to create a memory leak with this test?

A. I certainly knew that that is what it would do. My intention was to make it perform as fast as I thought it could perform.

Ex. A.3 at 127:21-128:1. In this way, Dr. Jones proxied the best-case scenario for the Defendants' performance. The Defendants attempt to dismiss this testimony because Dr. Jones did not preserve and produce the results of his preliminary tests in arriving at the proxied, next-best solution. *See* Mot. at 11. This is a red herring. Compliance with Rule 26 is a separate issue from admissibility, and Bedrock will discuss the merits of this argument below.

2. The Defendants' Other Criticisms

The remainder of the Defendants' criticisms have nothing to do with Dr. Jones's methodology; instead, they are nothing more than "disputes about the degree of relevance or accuracy," *see i4i*, 598 F.3d at 852, and therefore go to weight. The Defendants first argue that Dr. Jones did not replicate the Defendants' networks, which "consist of thousands . . . of servers distributed throughout the world creating geographic redundancies." *See* Mot. at 7. The jury will be able to evaluate whether he should have. The Defendants next argue that Dr. Jones failed to simulate the Defendants' levels of traffic. *See* Mot. at 7. Dr. Jones's tests, however, provide the performance advantage of the '120 patent across a range of traffic loads. *See* Ex. A.2 at 100.

The Defendants next criticize Dr. Jones's test for not using the same versions of Linux that they use. The jury can evaluate this criticism in light of the fact that the infringing code is essentially the same across all versions. Finally, the Defendants claim that, because Dr. Jones tested a version of Linux with both the Candidate and GenID code, both of which infringe the '120 patent, he did not truly isolate the impact of the invention. Yet Dr. Jones testified that he "did not have the GenID deletion due to the timer expiring was not occurring during that condition." *See* Ex. A.3 at 116:12-14.

D. Dr. Jones is Qualified to Testify to Denial of Service.

The Defendants challenge Dr. Jones's qualifications to testify to denial of service attacks. FED. R. EVID. 702 states that, "a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify" to matters of specialized knowledge to assist the trier of fact. Dr. Jones holds a Ph.D. in Computer Science and teaches Electrical and Computer Engineering at Virginia Tech and is well qualified to opine on the technical matters in this case.[6] As such, Dr. Jones is one of superior skill in the art and is more than qualified to testify.

E. Dr. Jones Complied with Rule 26 and the Protective Order in His Report

Alongside his expert report, Dr. Jones disclosed his source code, the tools he used to gather and measure data, his methods of testing, the specifications for the servers and laptops used in his tests, as well as all data underlying his ultimate opinion that the invention improves server efficiency by 11-25%. As discussed above, Dr. Jones performed many preliminary tests to arrive at the proxied, next-best alternative. Dr. Jones did not produce these tests because they were preliminary in nature, and as such, he did not rely on them. Contrary to the Defendants'

[6] Notably, Yahoo's retained technical expert, Mr. Stephen Gray, does not have a technical degree and does not even qualify as one skilled in the art in this case. Mr. Gray's technical expertise is mostly work he has done as an expert in litigation.

protestations that they cannot replicate his tests, they have everything that he had when he ran his tests. The only thing stopping the Defendants from replicating the tests is their own refusal to do so. Moreover, the parties in this case, by agreement, modified the requirements of FED.R.CIV.P. 26(a)(2)(B)(ii) so that only "materials, facts, consulting expert opinions, and other matters *actually relied upon* by the testifying expert in formulating his final report, trial or deposition testimony or any opinion in this action." *See* Dkt. No. 170 (Agreed Protective Order) at 21 (emphasis added).

III. CONCLUSION

For the foregoing reasons, Bedrock respectfully requests the Court deny the Defendants' motion in its entirety.

DATED: March 14, 2011

Respectfully submitted,
McKOOL SMITH, P.C.

/s/ *Douglas A. Cawley*

Sam F. Baxter
Texas Bar No. 01938000
McKOOL SMITH, P.C.
sbaxter@mckoolsmith.com
104 E. Houston Street, Suite 300
P.O. Box 0
Marshall, Texas 75670
Telephone: (903) 923-9000
Facsimile: (903) 923-9099

Douglas A. Cawley, Lead Attorney
Texas Bar No. 04035500
dcawley@mckoolsmith.com
Theodore Stevenson, III
Texas Bar No. 19196650
tstevenson@mckoolsmith.com
Scott W. Hejny
Texas Bar No. 24038952
shejny@mckoolsmith.com
Jason D. Cassady
Texas Bar No. 24045625
jcassady@mckoolsmith.com
J. Austin Curry
Texas Bar No. 24059636
acurry@mckoolsmith.com
Phillip M. Aurentz
Texas Bar No. 24059404
paurentz@mckoolsmith.com
Stacie Greskowiak
Texas State Bar No. 24074311
sgreskowiak@mckoolsmith.com
Ryan A. Hargrave
Texas State Bar No. 24071516
rhargrave@mckoolsmith.com

McKOOL SMITH, P.C.
300 Crescent Court, Suite 1500
Dallas, Texas 75201
Telephone: 214-978-4000
Facsimile: 214-978-4044

Robert M. Parker
Texas Bar No. 15498000
Robert Christopher Bunt
Texas Bar No. 00787165
PARKER, BUNT & AINSWORTH, P.C.
100 E. Ferguson, Suite 1114
Tyler, Texas 75702
Telephone: 903-531-3535
Facsimile: 903-533-9687
E-mail: rmparker@pbatyler.com
E-mail: rcbunt@pbatyler.com

ATTORNEYS FOR PLAINTIFF BEDROCK COMPUTER TECHNOLOGIES LLC

CERTIFICATE OF SERVICE

I hereby certify that all counsel of record who are deemed to have consented to electronic service are being served with a copy of the forgoing document via the Court's CM/ECF system pursuant to the Court's Local Rules this 14th day of March, 2011.

/s/ J. Austin Curry
J. Austin Curry