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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

ORACLE AMERICA, INC.,
Plaintiff,
v.
GOOGLE INC.,
Defendant.

No. C 10-03561 WHA

**ORDER GRANTING IN PART
MOTION TO STRIKE DAMAGE
REPORT OF PLAINTIFF
EXPERT IAIN COCKBURN**

INTRODUCTION

In this patent and copyright infringement action involving features of Java and Android, defendant moves to exclude the report and testimony of plaintiff’s damages expert. For the following reasons, the motion is largely **GRANTED**.

STATEMENT

The claims asserted in this action relate to the Java software platform, which was described in the claim construction order (Dkt. No. 137). The seven asserted patents purportedly cover inventions that improve the efficiency and security of Java. The copyright claim concerns the allegedly expressive elements of source code for Java class libraries. Java was developed by Sun Microsystems, Inc., in the 1990s, and it has become one of the world’s most popular software platforms. By using a “virtual machine,” Java enabled software developers to write programs that were able to run on a variety of different types of computer hardware. Java is commonly used on desktop computers to facilitate compatibility with application programs distributed through the

1 internet. A more recent “micro edition” of the Java platform known as Java ME is used in mobile
2 computing devices.

3 The accused product in this action is Android, a software platform that was designed
4 specifically for mobile devices and that competes with Java in that market. Both Java and
5 Android are complex platforms comprising virtual machines, programming languages,
6 development and testing kits, software libraries, and other elements. *Significantly, only part of*
7 *Java and part of Android are said to embody the asserted claims.* For example, the virtual
8 machine concept underlying Java’s “write once, run anywhere” solution is *not* covered by the
9 asserted claims and indeed was part of the prior art that predated Java. And, it is undisputed that
10 the Java programming language is in the public domain and anyone was free to use it without
11 charge, as Android does. The asserted patent claims purport to disclose only incremental
12 improvements to the efficiency and security of the Java system. For its part, Android uses the
13 Linux kernel and has many non-Java elements as well.

14 Google acquired Android, Inc., in August 2005 and soon began discussing the possibility
15 of taking a Java license from Sun for use in Android. The Android project sought to include a
16 virtual machine that used Java technology in an open-source format — but for mobile
17 applications. Historically, Sun never “refused to license any of the Java technologies,” and “the
18 proportion of total Java licensing costs as against total software revenues [for Sun’s Java
19 licensees was] de minimis” (Weingaertner Exh. H at 64–65). Sun, however, seemed reluctant to
20 authorize an open-source implementation of Java technology, possibly for fear that it would
21 decrease other Java licensing revenue (Norton Exh. D).

22 In October 2005, following “discussions with Sun regarding Android’s Open Source VM
23 strategy,” Google’s then Senior Vice President Andy Rubin remarked in an e-mail, “If Sun
24 doesn’t want to work with us, we have two options: 1) Abandon our work and adopt MSFT CLR
25 VM and C# language - or - 2) Do Java anyway and defend our decision, perhaps making enemies
26 along the way” (*ibid.*). Google and Sun continued to negotiate over the next several months, but
27 they were unable to reach a deal.

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1 In January 2006, Google internally discussed a possible co-development partnership deal
2 under which Java technology would become an open-source part of the Android platform. The
3 deal was projected to cost Google 25–50 million dollars, plus a negotiable share of revenue from
4 “platform-enabled mobile ads” (Norton Exh. C at GOOGLE-14-00042248). The record,
5 however, contains no evidence that Google actually proposed this idea to Sun.

6 The following month, Sun supposedly “proposed [to Google] a deal that would include
7 both a payment of \$20 million per year for three years plus 10 percent of the revenue generated
8 by Google on handsets running the open source platform, capped at \$25 million” per year
9 (Weingaertner Exh. A at ¶ 294). No documentation of Sun’s proposal is in the record, but
10 Oracle’s economist summarized it as “a proposed licensing of Java for use in Android” in an
11 official, conforming, Java-compatible implementation (*id.* at ¶¶ 294, 328, n.370). Google rejected
12 Sun’s offer. Google supposedly made at least one more counteroffer, but the negotiations
13 ultimately failed (*id.* at ¶ 295).

14 With no Java license from Sun, Google evidently forged ahead with the second of
15 Mr. Rubin’s fallback options — “Do Java anyway and defend our decision, perhaps making
16 enemies along the way.” Android was publicly announced in November 2007, and the first
17 Android phones went on sale the following year (Weingaertner Exh. S). Android-based
18 mobile devices rapidly grew in popularity and now comprise a dominant share of the
19 United States market.

20 In January 2010, Oracle Corporation acquired Sun and renamed it Oracle America, Inc.
21 Seven months later, Oracle America (“Oracle” herein) filed this action, asserting 132 claims in
22 seven patents as well as copyright infringement allegations. The 132 claims in suit have since
23 been reduced to fifty, and Oracle says it will select a fewer “triable” number for the jury trial set
24 for October. In August 2010, Andy Rubin received an internal email stating that the technical
25 alternatives to using Java for Android “all suck” and stating, “We conclude that we need to
26 negotiate a license for Java under the terms we need” (Oracle hearing Exh. at 74,
27 GOOGLE-12-00039565).

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1 On May 21, 2011, one day after the deadline for serving “all of its damages report,”
 2 Oracle served the expert report of Dr. Iain M. Cockburn (Weingaertner Decl. ¶ 1; Dkt. No. 56
 3 at ¶¶ 8–9). Dr. Cockburn, who is a professor of finance and economics at Boston University,
 4 provided an opinion on the damages to Oracle due to the alleged patent and copyright
 5 infringement asserted in this action (Weingaertner Exh. A at ¶¶ 1, 4). Using the Nash bargaining
 6 solution and other economic analysis, Dr. Cockburn purported to calculate what a reasonable
 7 royalty for the alleged infringement might be. He opined that the fair market value of a license
 8 reached through hypothetical negotiations at the time infringement began would be “at
 9 least \$1.4 billion” and “could be as much as \$6.1 billion,” “depending on different assumed fact
 10 scenarios.” He further opined that “the most likely hypothetical license negotiation outcome in
 11 this case would have been a total royalty with a net present value of approximately \$2.6 billion,”
 12 structured as “an up-front payment of \$0.9 billion to \$1.4 billion” plus “a share of revenues
 13 attributable to Android . . . between 10 and 15 percent” (*id.* at ¶¶ 9.5–9.6). Google now seeks to
 14 exclude Dr. Cockburn’s damages testimony.

ANALYSIS

16 An expert witness may provide opinion testimony “if (1) the testimony is based upon
 17 sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and
 18 (3) the witness has applied the principles and methods reliably to the facts of the case.” FRE 702.
 19 District courts thus “are charged with a ‘gatekeeping role,’ the objective of which is to ensure that
 20 expert testimony admitted into evidence is both reliable and relevant.” *Sundance, Inc. v.*
 21 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1360 (Fed. Cir. 2008).

22 Here, Google seeks to exclude the economic opinion testimony of Oracle’s damages
 23 expert. The parties contest a myriad of items in addition to Google’s several basic challenges.
 24 This order cannot address every point of contention. Instead, this order focuses on some of the
 25 fundamental flaws in Dr. Cockburn’s expert report that render his opinion testimony unfit for
 26 the jury.

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1 **1. LACK OF RECORD SUPPORT.**

2 Oracle now accuses Google of infringing fifty claims of seven patents. Only a triable
3 subset of the patent claims will be presented to the jury, and some of those may be cancelled by
4 the United States Patent and Trademark Office following the re-examination proceedings now
5 underway. But even all fifty claims certainly do not cover *all* of Java or *all* of Android.
6 Dr. Cockburn’s analysis, surprisingly, was not tied to the specific patent claims at issue. He did
7 not even identify a single patent claim. Instead, he used “Java” and “Android” as large-scale
8 bargaining units (*e.g.*, Weingaertner Exh. A at ¶¶ 196, 286). This approach was defective,
9 because Oracle has provided no basis for equating the asserted claims with either all of Java or all
10 of Android.

11 Dr. Cockburn recited a litany of facts to which “other witnesses will testify” which, if true,
12 might support a conclusion that the asserted claims are important to Java or Android
13 (*id.* at ¶¶ 19–24). But these facts are not in the sworn record. Oracle was required to serve “all of
14 its damages report” two months ago, including any necessary support (Dkt. No. 56 at ¶ 9).
15 Supposedly forthcoming testimony that was not timely disclosed is not a proper basis for the
16 damages analysis. Accordingly, Dr. Cockburn’s opinion was not based on sufficient facts.

17 **2. ASSERTED CLAIMS VERSUS ALL OF JAVA.**

18 Apart from evidentiary shortfalls, Dr. Cockburn’s focus on Java as a whole runs afoul of
19 controlling law. The reasonable royalty to be calculated is “a reasonable royalty *for the use made*
20 *of the invention* by the infringer.” 35 U.S.C. 248 (emphasis added). *Java was not the invention.*
21 *Only the claims asserted were the invention.*

22 Therefore, the hypothetical license must be limited to the asserted claims — *excluding the*
23 *rest of the Java platform*. That “[t]he intellectual property at issue here was generally bundled
24 into the technologies that Sun licensed on a portfolio basis” because “Sun’s practice was to
25 license Java, not to license individual patents,” does not change this statutory requirement
26 (Weingaertner Exh. A at ¶ 132). An opinion that the hypothetical negotiation would have
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1 resulted in a Java license simply fights the hypothetical. In postulating a full-blown “Java
2 license,” Dr. Cockburn evaded the question he was statutorily charged with answering
3 (*id.* at ¶ 286).

4 **3. ASSERTED CLAIMS VERSUS ALL OF ANDROID.**

5 Turning to the Android side of the calculus, Dr. Cockburn once again should have limited
6 his gaze only to the features of Android alleged to infringe the specific claims to be asserted at
7 trial. Instead, he assumed the entire value of Android was due to the claims asserted.

8 “The entire market value rule allows a patentee to assess damages based on the entire
9 market value of the accused product only where the patented feature creates the basis for
10 customer demand or substantially create[s] the value of the component parts.” *Uniloc USA, Inc.*
11 *v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) (internal quotations omitted). As
12 already stated, Dr. Cockburn provided no analysis showing either that the allegedly infringing
13 features of Android create the basis for all value of the Android platform or that they substantially
14 create the value of the non-infringing portions of the Android platform.

15 The fact that Java may be a critical component of Android does not justify application of
16 the entire market value rule. Wheels are critical to an automobile, but no one would apportion all
17 of the demand for a car to just the wheels.

18 It seems highly unlikely that Android derives its entire value from a small set of infringing
19 features, given its breadth. The next report must apportion the total value between the specific
20 infringing features versus the rest of Android.

21 **4. DATE OF THE HYPOTHETICAL NEGOTIATION.**

22 A reasonable royalty is derived by “envision[ing] the terms of a licensing agreement
23 reached as the result of a supposed [bargain] between the patentee and the infringer *at the time*
24 *infringement began.*” *Minks v. Polaris Indus., Inc.*, 546 F.3d 1364, 1372 (Fed. Cir. 2008)
25 (emphasis added). Direct patent infringement includes making, using, selling, offering to sell, or
26 importing any patented invention in the United States without authorization. 35 U.S.C. 271(a).

27 Dr. Cockburn acknowledged that the hypothetical negotiation must take place “as of the
28 date the alleged infringement began,” but he timed it “just before the launch of Android on

1 October 22, 2008, the date on which the first Google phone shipped” (Weingaertner Exh. A
2 at ¶¶ 110, 119). This timing was incorrect because it ignored alleged infringement that would
3 have taken place *bringing* Android to market. It also ignored the problem that determining the
4 date of first infringement requires a claim-by-claim analysis. The jury may well find that
5 infringement of some patent claims began at earlier dates while infringement of other patent
6 claims began at later dates. These variations must be taken into account.

7 Oracle argues that “the date of the hypothetical negotiation is the date that the infringing
8 product was first offered for sale in the United States” (Opp. 18). This is not the law. The
9 decisions cited by Oracle do not state otherwise. The hypothetical negotiation must be scheduled
10 as of *the time infringement began*. *Uniloc*, 632 F.3d at 1312. Yes, in some cases, such as where a
11 foreign defendant expands its sales of an accused product into the United States market, the date
12 the product is first offered for sale in the United States may in fact be the date infringement
13 began. *Where an accused product is developed and tested here in the United States, however,*
14 *“use” and therefore infringement will almost always begin well before the first sale.* Here,
15 neither Oracle nor its expert has provided support for any negotiation at the unlikely time of the
16 first sale of an Android device. Dr. Cockburn was simply resorting to wishful thinking.

17 **5. FIGHTING THE HYPOTHETICAL.**

18 Upon a finding of infringement, the patentee is entitled to “damages adequate to
19 compensate for the infringement, but in no event less than a reasonable royalty for the use made
20 of the invention by the infringer.” 35 U.S.C. 284. “Two *alternative* categories of infringement
21 compensation are the patentee’s lost profits and the reasonable royalty he would have received
22 through arms-length bargaining.” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324
23 (Fed. Cir. 2009) (emphasis added).

24 A reasonable royalty typically is determined from the “hypothetical results of hypothetical
25 negotiations between the patentee and infringer (both hypothetically willing) at the time
26 infringement began.” *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1579 (Fed. Cir. 1996). “This
27 hypothetical construct seeks the percentage of sales or profit likely to have induced the
28 hypothetical negotiators to license use of the invention.” *Minco, Inc. v. Combustion Eng’g, Inc.*,

1 95 F.3d 1109, 1119 (Fed. Cir. 1996). Certain assumptions built into this thought experiment may
2 not be discarded in favor of the parties' subjective preferences and history. Dr. Cockburn's
3 analysis improperly fought the hypothetical.

4 *First*, as stated, the hypothetical negotiation takes place "between the patentee and
5 infringer . . . at the time infringement began." *Mahurkar*, 79 F.3d at 1579. At the time the
6 alleged infringement began, Sun was the patentee, not Oracle. Dr. Cockburn erred in
7 hypothesizing a negotiation between Google and Oracle, instead of one between Google and Sun.
8 Oracle and Sun were different companies with different interests. Injecting Oracle into the
9 bargaining room was wrong.

10 *Second*, the license reached in the hypothetical negotiation must compensate the licensor
11 for the actual infringement that took place — no more and no less. *See* 35 U.S.C. 284;
12 *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010) ("At all times, the damages
13 inquiry must concentrate on compensation for the economic harm caused by infringement of the
14 claimed invention."). The hypothetical license therefore must be tailored to the amount and type
15 of alleged infringement that actually occurred.

16 If, for example, the hypothetical license were to cover only ten patent claims, it might not
17 portend fragmentation of the Java platform, and many of the large-scale considerations in
18 Dr. Cockburn's analysis might simply fall away. The reasonable royalty must compensate for the
19 infringing features, but not for non-infringing ones. It must be limited to the time period(s) and
20 geographic region(s) in which infringement took place.

21 On the other hand, Google wrongly criticizes Dr. Cockburn for assuming "that Sun and
22 Google would have negotiated an expensive, Java-incompatible license rather than a cheap,
23 Java-compatible license" (Br. 20). Android is not Java-compatible, or so a jury could reasonably
24 find. The hypothetical negotiation therefore *may* include an assumption that Google's use of the
25 licensed rights is not limited to Java-compatible products.

26 **6. FRAGMENTATION.**

27 In evaluating the patentee's hypothetical bargaining position, Dr. Cockburn considered a
28 foreseeable possibility that Google's use of such an unrestricted license would "fork" or

1 “fragment” the Java platform. For example, he explained that fragmentation would entail “[t]he
2 potential for reduction in the size and loyalty of the Java developer community” as former Java
3 developers chose instead to create Android applications, which could be written in the familiar
4 Java programming language but which would not be compatible with Java systems (Weingaertner
5 Exh. A at ¶ 159). According to Dr. Cockburn, the looming specter of fragmentation would have
6 provoked the patentee to demand a higher royalty and a larger up-front payment.

7 Google attacks this reasoning, arguing that fragmentation is not a proper element of a
8 royalty analysis (Br. 11). Google is incorrect. At the time of the hypothetical negotiation, the
9 parties reasonably could have foreseen the possibility of Java fragmentation as a consequence of a
10 license for use in implementations not subject to Sun’s approval. Fragmentation therefore would
11 have been taken into account in the hypothetical negotiation, or so plaintiff is entitled to argue.
12 The weight of these fragmentation concerns and the degree to which they would have impacted
13 the negotiation back then are questions of fact.

14 **7. ADVERTISING REVENUE.**

15 The accused product is Android, but unlike a typical infringing product, Android is not
16 sold. Instead, Google profits from Android indirectly. Any valuation of Android must take this
17 business model into account. Put differently, the question is “what is the market value of
18 Android — what could it be bought or sold for — and to what extent do the infringing features
19 contribute to that overall value?”

20 While Google is correct that we must ultimately isolate the infringing features’
21 contribution, Google is incorrect in asserting that the overall value of Android is irrelevant and is
22 further incorrect in asserting that advertising revenues have nothing to do with the overall value.
23 Of course, they do have something to do with the overall value. There is evidence, for example,
24 that users with Android phones “search twice as much” as users with other types of phones,
25 increasing the advertising revenue derived from Google’s search service. Additionally, for
26 searches on Android devices, Google must share its revenue only with the device operator and not
27 with any other intermediary (Norton Exh. G at 9). The relationship between Android and
28 Google’s advertising revenues would have been known to the parties at the time of the

1 hypothetical negotiation. Plaintiff may base its damages model on then-expected advertising
2 revenue so long as apportionment is done.

3 **8. WORLDWIDE REVENUE.**

4 The parties dispute the propriety of considering international revenue in valuations of Java
5 and Android, but the law on this point is clear (Br. 17; Opp. 17–18). United States patents are
6 infringed only in the United States. 35 U.S.C. 271. Patent infringement damages, therefore, must
7 compensate only for the consequences of domestic activities. The features in question can
8 infringe only when used in the United States. The analysis, therefore, must apportion worldwide
9 revenue to isolate the part attributable to the features used in the United States, as those revenues
10 would have been reasonably foreseen at the time of the hypothetical negotiation. The amount of
11 such then-expected revenue is a question of fact.

12 **9. GOOGLE’S SOVIET-STYLE NEGOTIATION.**

13 Google emphasizes that negotiations between Sun and Google regarding a Java license for
14 the mobile space “never got anywhere near the billion-dollar level.” Google recounts that
15 “Google *rejected* a proposal made by Sun to pay Sun \$60 million over three years plus an
16 additional amount up to \$25 million per year in revenue sharing” and suggests that the total value
17 of this offer — “at most, a figure around \$100 million” — should serve as a ceiling for the
18 reasonable royalty reached in any hypothetical negotiation (Br. 19–20). In other words, since
19 Google *rejected* the offer, the rejected offer must serve as a ceiling for the hypothetical
20 negotiation, or so Google argues.

21 This would be a Soviet-style negotiation: “What’s mine is mine and what’s yours is
22 negotiable.” The test is not what the infringer actually bargained for but what *reasonable* parties
23 would have negotiated. Google may have simply been brazen, preferring to roll the dice on
24 possible litigation rather than to pay a fair price. Moreover, by law, the hypothetical negotiation
25 presupposes infringement and validity of the claims in suit, whereas back in 2006 Google was
26 entitled to a discount based upon the risks of litigation over validity and non-infringement.
27 Google is wrong on this criticism.

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1 **10. PROSPECT OF PERMANENT INJUNCTION.**

2 Google accuses Dr. Cockburn of “straight-up double counting” because his calculation
3 included future damages even though Oracle seeks an injunction (Br. 16). Damages, of course,
4 will be awarded only for infringement that actually occurs and possibly provable future damages.
5 There is a substantial possibility that a permanent injunction will be granted in the event
6 infringement is found, especially if willfulness is proven. To account for this scenario, any
7 damages report should address both the assumption that an injunction will be granted *and* the
8 assumption that an injunction will not be granted. The hypothetical license, therefore, should be
9 structured as a series of yearly payments *with no additional lump sum to be paid up front*. This
10 structure should be adopted as an assumption in any damages analysis, so that the jury can more
11 easily divide the amount of damages between past and future infringement. If and when a
12 permanent injunction is entered, the damages award will then be adjusted accordingly.
13 Furthermore, any projection of future damages must take into account the varying expiration
14 dates of the asserted patent claims.

15 **11. NASH BARGAINING SOLUTION.**

16 The Nash bargaining solution is a mathematical model that purports to define the most
17 mutually beneficial outcome of a two-party bargaining scenario. After identifying the profits
18 each party could expect without a deal and the surplus created by their cooperation, the Nash
19 model allocates the value of the deal in two steps: each party first receives the same profits it
20 could expect without a deal, and then the remaining surplus is divided evenly between them. The
21 Nash bargaining solution relies on “a few general assumptions” that “idealize the bargaining
22 problem.” John F. Nash, Jr., *The Bargaining Problem*, *Econometrica*, Apr. 1950, at 155. Like
23 any mathematical model, the Nash solution cannot describe real-world behavior unless the
24 conditions on which it is premised are satisfied in the real world.

25 It is no wonder that a patent plaintiff would love the Nash bargaining solution because it
26 awards fully half of the surplus to the patent owner, which in most cases will amount to *half* of
27 the infringer’s profit, which will be many times the amount of real-world royalty rates. There is
28 no anchor for this fifty-percent assumption in the record of actual transactions.

1 Dr. Cockburn purported to use the Nash bargaining solution to “project[] bargaining
2 outcomes and calculat[e] the resulting payments and royalties” in the hypothetical negotiation he
3 postulated between Google and Oracle (Weingaertner Exh. A at ¶ 281). He did not, however,
4 adequately explain this method or tie it to facts in the record. In particular, Dr. Cockburn glossed
5 over the axioms underlying the Nash solution without citing *any* evidence to show that those
6 assumptions were warranted in the present case (*id.* at ¶ 282). In this respect, his analysis was not
7 based on sufficient facts. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 591 (1993) (“An
8 additional consideration under Rule 702 — and another aspect of relevancy — is whether expert
9 testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in
10 resolving a factual dispute.”). Because Dr. Cockburn did not provide an adequate justification for
11 applying the Nash solution to the facts of this case, allowing him to testify to his results would
12 risk misleading the jury as to the soundness of the foundation for his conclusions.

13 The Nash bargaining solution has never been approved by a judge to calculate reasonable
14 royalties in litigation, at least in the face of objection. This is despite the fact that for decades it
15 has been lurking in the field of economics.*

16 The Nash bargaining solution involves complex mathematical formulas and equations that
17 would surely be incomprehensible to the average juror. For example, an article demonstrating
18 how to apply the model to a reasonable royalty analysis includes much math, of which the
19 following excerpt is illustrative:

24 * Oracle cites no decision approving the use of the Nash bargaining solution to calculate a
25 reasonable royalty in litigation. An exhaustive search has revealed only one decision that comes close.
26 *Amakua Dev. Co. v. Warner*, No. 05 C 3082, 2007 WL 2028186, at *20 (N.D. Ill. July 10, 2007)
27 (“Defendants have not challenged the reliability of Nash’s theories, and the assessment of whether the
28 theory persuasively can be applied in the context of this case is for the jury. Again, the Court finds that the
proper method of challenging this testimony is on cross-examination.”). The Nash bargaining solution is
the subject of another *Daubert* challenge currently pending in this district. Like defendants here, the
defendants in that action argue that use of the Nash bargaining solution to calculate a reasonable royalty
runs afoul of guidance in the Federal Circuit’s recent *Uniloc* decision. *Mformation Techs., Inc. v. Research
In Motion Ltd.*, No. 08-CV-04990 (JW), Dkt. No. 416, at 4–6 (Mar. 28, 2011).

1 If both the patent holder and the infringer possess
 2 production capabilities enabling them to use the invention, then the
 3 patent holder's disagreement payoff (what the patent holder could
 4 expect without a deal), d_1 , is

$$d_1 = P_1 Q_1 - C_1(Q_1)$$

5 where P_1 is the profit-maximizing price for the patent holder absent
 6 the infringer, Q_1 is the profit-maximizing quantity for the patent
 7 holder absent the infringer, and $C_1(Q_1)$ is the patent holder's
 8 cost function.

9 The joint profit from licensing, Π , is

$$\Pi = P_m Q_m - C_2(Q_m)$$

10 where P_m represents price, Q_m represents quantity, $C_2(Q_m)$
 11 represents the licensee's cost function, and the subscript m refers
 12 to a monopoly.

13 The bargaining payoff for the licensor, π_1^* , is

$$\pi_1^* = d_1 + [P_m Q_m - C_2(Q_m) - d_1 - d_2]/2 = r Q_m$$

14 where d_2 is the infringer's disagreement payoff.

15 The bargaining payoff for the licensee, π_2^* , is

$$\pi_2^* = d_2 + [P_m Q_m - C_2(Q_m) - d_1 - d_2]/2 = P_m Q_m - C_2(Q_m) - r Q_m.$$

16 The total profit from licensing, Π , is

$$\pi_1^* + \pi_2^* = \Pi = P_m Q_m - C_2(Q_m).$$

17 And, finally, the reasonable royalty, r , is

$$r = [P_m - AC_2]/2 + [1/2Q_m][d_1 - d_2].$$

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 20 See William Choi & Roy Weinstein, *An Analytical Solution to Reasonable Royalty Rate*
 21 *Calculations*, 41 IDEA 49, 56–60 (2001).

22 No jury could follow this Greek or testimony trying to explain it. The Nash
 23 bargaining solution would invite a miscarriage of justice by clothing a fifty-percent assumption
 24 in an impenetrable facade of mathematics. See *Uniloc*, 632 F.3d at 1312–15 (holding that
 25 the 25 percent rule of thumb is inadmissible under *Daubert* and the Federal Rules of Evidence for
 26 determining a baseline royalty rate in a hypothetical negotiation). Such confusing evidence will
 27 be excluded under FRE 403. No expert testimony based on the Nash bargaining solution will be
 28 admitted. Instead, the normal *Georgia-Pacific* factors, which have been approved by the Court of

1 Appeals for the Federal Circuit and which are more understandable to the average fact-finder, will
2 guide our reasonable royalty analysis. *See Uniloc*, 632 F.3d at 1317 (“This court has sanctioned
3 the use of the *Georgia-Pacific* factors to frame the reasonable royalty inquiry.”).

4 **12. THE HYPOTHETICAL NEGOTIATION.**

5 What we must do to stage the hypothetical negotiation is (i) to transport two fictitious
6 persons back to an imaginary bargaining table on the date of first infringement, one person being
7 a representative of the patent owner and the other being a representative of the infringer, (ii) to
8 imbue both of them with reasonableness and objectivity, (iii) to require them to be mindful of the
9 reasonably relevant real-world business considerations then known to both sides (to the extent
10 allowed by *Georgia-Pacific*), (iv) to inform them of all reasonable non-infringing alternatives that
11 would have been available in the absence of a license and, therefore, might have guided the
12 negotiators, including their pros and cons, and (v) to instruct them then to negotiate in good faith
13 a royalty fee that would fairly and reasonably reflect both sides’ relevant business interests and
14 bargaining positions so as to cover the actual infringement that eventually took place, while
15 taking as a given the validity and enforceability of the patent claims.

16 In deciding how reasonable negotiators would have acted, the trier of fact may consider
17 “comparables” including even comparables unknown to the litigants back at the time in question.
18 While the patents must be presumed valid, the negotiations should not be based on any premise
19 that the patent holder had the infringer “over the barrel” due to infringement that later
20 occurred and, therefore, could extract a premium. Instead, the infringer must be presumed
21 poised to start infringement, but still blessed with the option to pause and to pursue
22 non-infringing alternatives.

23 Given the presence in this case of a real-world “comparable” close on point — the last
24 Sun offer in 2006 — the Court is strongly of the view that the hypothetical negotiation should
25 take that \$100 million offer as the starting point and adjust as follows:

- 26 • Adjust *downward* for the fact that Java covers far more
27 than the claims in suit and therefore the 2006 offer covered
28 far more than the claims in suit.
- Adjust *downward* for the fact that Android covers far more
than the claims in suit.

- 1 • Adjust *upward* due to the necessary assumption that all
- 2 claims asserted must be deemed valid and infringed
- 3 (whereas in 2006 this was uncertain).
- 4 • Adjust upward or downward, as the case may be, for any
- 5 further changes known to the parties between the date of
- 6 the offer and the date of first infringement.
- 7 • Adjust upward or downward for other comparables and
- 8 other *Georgia-Pacific* factors.
- 9 • Adjust downward for the fact that the offer included a
- 10 *copyright* license, an issue not addressed herein (and which
- 11 will not be addressed until the final report is done).

12 This order does not absolutely rule out all other formats. The foregoing would seem to be
13 a clear-cut starting point.

14 CONCLUSION

15 On reflection, the Court erred in inviting the damages report to be submitted earlier than
16 normal. The Court's express thinking was that allowing an earlier report would leave time to vet
17 the analysis and then to adjust for the final report without trial delay. Instead, however, the patent
18 owner here simply served a report that overreached in multiple ways — each and every overreach
19 compounding damages ever higher into the billions — evidently with the goal of seeing how
20 much it could get away with, a “free bite,” as it were. Please be forewarned: the next bite will be
21 for keeps. If the next and final report fails to measure up in any substantial and unseverable way,
22 including ways this order did not have time to reach, then it may be excluded altogether without
23 leave to try yet again. While this order has not reached every possible criticism, Oracle must be
24 aware that some of the unaddressed criticisms seem, at least on one reading, to have merit, so it
25 should proceed with caution before overreaching again.

26 If Oracle believes that it cannot craft a report until it figures out what patent claims (of the
27 many currently asserted) it will actually assert at trial, that is a problem of its own making. If
28 Oracle needs to postpone the October trial date until it settles on which claims it truly believes are
29 triable, then it should bring a prompt motion to do so; otherwise, Oracle's revised damages report
30 limited to the claims actually to be tried will be due **35 DAYS** before the final pretrial conference

1 and any responsive defense report will be due **FOURTEEN DAYS** before the final pretrial
2 conference. The author of the report must, of course, sit for another deposition.

3 With respect to a possible stay pending re-examination, the Court is yet unwilling to give
4 up on the October trial date. This will be revisited in due course, and in any event at the final
5 pretrial conference. A factor will be whether this case will be truly trial-ready.

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7 **IT IS SO ORDERED.**

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9 Dated: July 22, 2011.

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12 WILLIAM ALSUP
13 UNITED STATES DISTRICT JUDGE
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