

## 2011: A Case Odyssey — Part 1

*Law360, New York (March 23, 2012, 12:42 PM ET)* -- On Jan. 4, 2011, the Federal Circuit issued its opinion in *Uniloc*,<sup>[1]</sup> famously delivering a fatal blow to the availability of the 25 percent rule of thumb in calculating patent damages. *Uniloc* followed on the heels of several other important decisions, namely *Lucent* (September 2009),<sup>[2]</sup> *ResQNet.com* (February 2010)<sup>[3]</sup> and *Wordtech* (June 2010),<sup>[4]</sup> during a time when Congress was evaluating a draft patent reform bill containing significant guidance on how trial courts should treat damages claims and evidence thereof.



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As a result of these and other decisions, all reasonable royalty claims are now examined through a microscope instead of a telescope. The Federal Circuit eliminated the need for Congress to intervene in how damages in patent litigation are determined, as the America Invents Act was stripped of its damages-centric language before being signed. Instead, the common law alone requires both plaintiffs and defendants to carefully quantify their damages positions and district judges to embrace their role as gatekeepers.

Commentators far and wide predicted that *Uniloc* would usher with it a new era in patent damages. Before the wave of Federal Circuit action, it was typical for plaintiffs to sustain a damages award with a macro-level analysis of the asserted patent, the accused device and the relevant marketplace. In contrast, as a result of *Uniloc* and its progeny, litigants and their experts would be forced to exhaustively quantify their claims for a reasonable royalty award, taking every potential nuance into careful consideration.

It's been more than a year since *Uniloc* was decided, and it's safe to say that this popular opinion was correct. A Lexis search shows that *Uniloc* is cited in 44 opinions, *Lucent* in 111 opinions and *ResQNet.com* in 66 others. Patent litigators have authored thousands of pages of briefs arguing why these decisions support their damages claim or refute the other side's. Federal district courts have issued hundreds of pages of opinions on the same. Indeed, many attorneys reading this article have likely felt the impact of this law on how they evaluate cases, select experts or propound discovery.

But perhaps the starkest evidence of the impact of these decisions is the fact that, since *Uniloc*, and for over a year, the Federal Circuit has not issued a particularly meaningful damages opinion. This may be due to several reasons. Cases with significant damages implications might be more likely to settle before the Federal Circuit gets its hands on a jury award.

For example, litigants Paice and Toyota Motor Corp. settled an infringement action over hybrid technology after briefing the dispute at the Federal Circuit but before the court of appeals issued a ruling. The settlement came in July of 2010, about three months after oral argument, during which Chief Judge Randall Rader was particularly critical of Paice's damages theory for not appropriately apportioning Toyota's profits in light of the claimed technology.

Instead, damages law in 2011 developed not through the court of appeals, but through the district courts now charged as strict gatekeepers and armed with Lucent, ResQNet.com and Uniloc as their tools for doing so. One year since Uniloc, only by examining the activity at the district court level can we truly evaluate the widespread prediction that the end of the 25 percent rule of thumb would result in a sea change in patent infringement litigation and the analytical descent from the macro to the micro level. Carefully reviewing the year of 2011 through the lenses of highly damage-centric litigations reveals a wide spectrum of examples of this movement.

## **Oracle v. Google**

On one end of the spectrum, district courts have treated damages theories with utmost scrutiny and evaluated whether the predicates relied on by experts conform precisely with new Federal Circuit law. Oracle v. Google, a battle currently ongoing in the Northern District of California, is one such case.[5] It involves two of the biggest and most recognizable players in the technology space, and they are represented by equally recognizable counsel.[6] The litigation involves several intellectual property issues, but Oracle America Inc.'s allegations of patent infringement and damages owed in relation thereto have been especially contentious.

The seven asserted patents in Oracle v. Google claim incremental improvements to the Java virtual machine ("JVM"), a software platform that allows programs written in object-oriented Java code to run on many different hardware architectures by emulating those architectures in software.[7] The JVM is the foundation upon which Java programs are able to run on any operating system (Windows, Mac OS, Linux, etc.) as long as the end user has installed the necessary software.[8]

For this and other reasons, and depending on how one tabulates the statistics, Java is either the most popular programming language, or is very close in popularity to C and C++.[9] After its development in the 1990s, Java became the crown jewel of onetime hardware heavyweight Sun Microsystems, and Oracle subsequently acquired Sun in January 2010.[10] Oracle brought suit against Google Inc. less than a year later on its newly assigned, Java-related patents.

Oracle's infringement allegations relate to the Android operating system, which has quickly become one of the most widely used mobile software platforms for smartphones. Oracle has alleged that Google infringes by supplying both the Android operating system itself and the Android software development kit to foreign and domestic device suppliers.[11]

Key to the damages analysis in this case is that the Java programming language was and continues to be available in the public domain, free of charge.[12] And the key benefits of Java, namely its "one size fits all" capabilities enabled through the JVM, existed in the prior art.[13] As noted by Judge William Alsup, the patents asserted by Oracle against Google relate not to Java itself or these key benefits, but instead to incremental improvements to the efficiency and security of Android's use of Java.

Oracle originally took a very aggressive approach to calculating its reasonable royalty damages. In May 2011, Oracle served the opening report of its expert, Iain Cockburn, who opined under a "Nash bargaining solution and other economic analysis," that the fair market value of a license reached through hypothetical negotiations at the time of infringement would be between \$1.4 and \$6.1 billion, and that the most likely outcome would have been a license for \$2.6 billion.[14]

Interestingly, both Cockburn's analysis and Google's arguments have heavily emphasized several real-world considerations and actual events surrounding the Android business model, forcing the court to determine whether such inputs are appropriate under Uniloc and its progeny.

Upon a motion to strike filed by Google and in view of the evolving damages law, Judge Alsup first took issue with several discrete aspects of Cockburn's opening report. For one, Cockburn used Java and Android as "large-scale bargaining units" rather than tying his bargaining analysis specifically to any of the 50 asserted patent claims.[15] This, the court held, violated Uniloc by summarily concluding that the allegedly infringing aspects of the accused devices and software create the basis for demand of the non-infringing portions of Java and Android.[16]

The court also rejected several assumptions made by Cockburn as to the hypothetical negotiation. For example, Cockburn used a single date of first infringement, as an input to the hypothetical negotiation, for all 50 asserted claims.[17] He also assumed that the hypothetical negotiation would have taken place between Oracle and Google, when instead, as the court held, it would have been Sun (the original assignee of the asserted patents) negotiating with Google at the time infringement began.[18]

On the other hand, Judge Alsup sided with Oracle in holding that certain real-world business constructs could properly factor into the reasonable royalty. One such construct was "fragmentation," whereby, according to Cockburn, Oracle (Sun) would demand a higher royalty at the time of hypothetical negotiation out of fear that an unrestricted license would lead to "reduction in size and loyalty of the Java developer community" as it shifted to Android development.[19] Another construct related to advertising revenue, which Judge Alsup held would have been foreseeably intertwined with the Android platform and which Oracle could insert into its analysis "so long as apportionment is done." [20]

The centerpiece of Oracle's damages calculation, as mentioned above, was Cockburn's use of the "Nash bargaining solution." This mathematical model, named for its creator John Forbes Nash,[21] works by "identifying the profits each party could expect without a deal and the surplus created by their cooperation," and then allocating the value of the deal in two steps: "each party first receives the same profits it could expect without a deal, and then the remaining surplus is divided evenly between them." [22]

Judge Alsup noted his immediate suspicion with this model as being overly plaintiff-friendly, as it "awards fully half of the surplus to the patent owner, which in most cases will amount to half of the infringer's profit, which will be many times the amount of real-world royalty rates." [23]

The Nash bargaining solution came under heavy fire from Judge Alsup for functioning as a "fifty-percent assumption in an impenetrable facade of mathematics," tantamount to the 25 percent rule of thumb rejected squarely by Uniloc.[24] The court held that Cockburn "did not ... adequately explain this method or tie it to facts in the record" and "glossed over the axioms underlying the Nash solution without citing any evidence to show that those assumptions were warranted in the present case." [25]

Judge Alsup further criticized the Nash model for being likely incomprehensible to jurors and quoted an article excerpt containing complex mathematical formulas to make his point.[26] In the end, the court held that no testimony based upon the Nash bargaining solution would be admitted over the "normal Georgia-Pacific factors." [27] Clearly, in considering candidates to replace the 25 percent rule of thumb, the Nash bargaining solution is out of the running.

Oracle and Cockburn were thus sent back to the drawing board. They later emerged with a second expert report that pegged Google for a reasonable royalty of \$201.8 million for its patent infringement — a far cry from the original model of over \$2 billion.[28] Instead of the Nash model, Cockburn used the "standard" hypothetical negotiation model, starting at a position of \$100 million based on real-world negotiations that took place in 2006, adjusting downward for apportionment, and then adjusting upward for "lost revenue that was expected from the licensing agreement." [29]

The court rejected several challenges posed by Google as to this second opinion, including: the use of \$100 million as the starting point (it was supported by evidence of actual negotiations), an upward adjustment based on projected conveyed sales (also supported by evidence), and upward adjustment based on the earlier-discussed fear of fragmentation (also supported by evidence).[30]

So far, so good. But where Cockburn's second report fell short, again, was in its failure to apportion between patented and unpatented features. The royalty figure depended on apportioning the \$100 million starting point downward by a factor of 30 percent, which Cockburn claimed was based on "specific contribution of the patents-in-suit to Android's success in generating revenues as distinct from the contributions of other factors." [31]

The \$100 million on the table in 2006, however, "potentially included thousands of patents," and Cockburn admitted in his deposition that he "did not know how many total patents were in the licensing bundle between Sun and Google" or "what functionality the other patents covered." [32] In sum, held Judge Alsup, Cockburn did not use the value of the patents to apportion the infringer's profits, "but instead apportioned the purchase price of a broad license portfolio without any basis to opine on the value of the rest of that license portfolio." [33]

Further dooming Cockburn's second report was his failure to conduct a claim-by-claim instead of patent-by-patent damages analysis. [34] A claim-by-claim analysis was preferable, the court held, for at least five reasons: (1) it's necessary to get the correct timeline to calculate past damages; (2) some claims might be less valuable or easier to design around; (3) it's necessary to calculate future damages if Google designs around some claims in a certain patent but not all; (4) the jury could find liability on some claims but not all in the same patent; and (5) some claims may be rejected on re-examination at the U.S. Patent and Trademark Office. [35]

As a result, several important portions of Cockburn's second report were struck on Jan. 9, 2012, and the court allowed the parties to submit briefing on whether Cockburn should be granted a third try. [36] On Jan. 17, 2012, Google contended that Cockburn should be done for good, arguing that "[t]he writing on the wall was unmistakable, but Oracle failed to read it." [37] Oracle argued that a third report was warranted "in light of the complexity of calculating reasonable royalty damages, the evolving and uncertain legal standards in [damages] law, the demanding requirements imposed by [Judge Alsup], and the substantial degree to which Cockburn's existing analyses have withstood scrutiny." [38]

Oracle ultimately prevailed, and Cockburn submitted a third damages expert report, subject to yet another round of Daubert briefing and a hearing. On March 14, 2012, Judge Alsup issued a lengthy order that walked carefully through each of several apportionment methodologies laid out by Cockburn in his third report. [39] Judge Alsup did not entirely strike the first methodology, which used a so-called "group-and-value" approach, but instead held — based on misgivings with grouping together parts of a large patent portfolio and ranking them based on patent studies and other indicia — that Cockburn could only opine on the "lower bound" of his calculation that resulted in a value of \$20 million per patent before offsets. [40]

The second, "independent-significance" approach was struck entirely. [41] The third approach, which "used a web-based survey to measure the relative importance to consumers of seven smartphone features," was allowed only for its calculation of the "relative preference between 'application startup time' and 'availability of applications.'" [42]

Notably, in his discussion of the "group-and-value" approach, Judge Alsup reversed course from an earlier order and held explicitly that "a claim-by-claim apportionment is not required under current patent law." [43] Citing "current USPTO guidelines" under which "there is a presumption that each issued patent contains only one independent and distinct invention," Judge Alsup held that "it is reasonable to require — in the hypothetical negotiation — that the infringer license the entire patent." [44]

Finally, Judge Alsup struck an econometric analysis purporting to measure the change in Android market share resulting from infringement and cited throughout Cockburn's reasonable royalty opinions. [45] Throughout the

order, the court notes several times where arguments go to the weight and not outright admissibility of testimony (i.e., in reference to part of the conjoint analysis, “[t]he jury may well raise a skeptical brow over the seemingly convoluted testimony but that is not the test for Daubert”).[46]

Interestingly, however, with respect to Cockburn’s econometric analysis, Judge Alsup was more willing to disallow testimony based on misgivings with the calculative method used — and he indeed picks apart the calculation in a way that sometimes reads like a rebuttal expert report — rather than letting those misgivings go to the weight of the evidence.[47]

Judge Alsup’s treatment of Cockburn’s econometric analysis highlights one of the most remarkable aspects of Oracle v. Google thus far: the willingness to not only perform the gatekeeping role in evaluating the damages evidence, but to give very clear and specific guidance on the proper analysis. For example, in the court’s first Daubert ruling in July 2011, Judge Alsup stated that he was “strongly of the view that the hypothetical negotiation should take [the 2006, real-world] \$100 million offer as a starting point.”[48]

The court went even further, suggesting that the \$100 million starting point be adjusted in part as follows: (1) downward for the fact that both Java and the 2006 offer cover more than the claims in suit; (2) downward for the fact that Android covers more than the claims in suit; (3) upward to account for the assumption that all claims are valid and infringed; and (4) upward or downward based on other Georgia-Pacific factors.[49] Oracle was given a rather specific template on how to frame its damages analysis, strayed from that template, and although it was given a third chance to redo its expert report, that chance did not come without admonishment from the court.[50]

Oracle v. Google has also highlighted at least two consequences of the Uniloc decision: first, the need to use something other than the 25 percent rule of thumb to formulate a starting point for calculating damages; and second, the importance of conducting a sufficient apportionment analysis. On the first point, the court seemed satisfied with using a real-world offer made between the actual parties as a starting point, and it soundly rejected the Nash bargaining solution as a thinly veiled 50 percent rule of thumb. On the second point, the court has pleaded for an analysis that apportions both the value of the patented inventions as subsumed in the real-world \$100 offer and the contribution of those inventions to the Java and Android platforms.

In part two of this article, we will further examine 2011’s developments in reasonable royalty damages law through the lens of district court cases, including Lucent v. Microsoft, DataQuill v. HTC and ActiveVideo v. Verizon. We will critically examine the varying approaches attorneys and judges have taken towards resolving issues of damages, how these approaches have affected potential and actual jury awards, and how they may shape the future of this constantly evolving area of jurisprudence.

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[1] Uniloc USA Inc. v. Microsoft Corp., 632 F.3d 1292 (Fed. Cir. 2011).

[2] Lucent Techs. Inc. v. Gateway, Inc. 580 F.3d 1301 (Fed. Cir. 2009).

[3] ResQNet.com Inc. v. Lansa Inc., 594 F.3d 860 (Fed. Cir. 2010).

[4] Wordtech Sys. Inc. v. Integrated Networks Solutions Inc., 609 F.3d 1308 (Fed. Cir. 2010).

[5] Oracle Am. Inc. v. Google Inc., No. C 10-3561 (N.D. Cal.).

[6] Oracle is represented mainly by the Boies, Schiller firm and Morrison & Foerster LLP, while Google is represented mainly by King & Spalding LLP and Greenberg Traurig LLP.

[7] Oracle v. Google, Dkt. 137 (May 9, 2011) at 2.

[8] Id. at 2.

[9] <http://langpop.com>

[10] Oracle v. Google, Dkt. 230 (Jul. 22, 2011) at 1.

[11] Id. at 2.

[12] Id.

[13] Id.

[14] Id. at 4.

[15] Id. at 5 (“Java was not the invention. Only the claims asserted were the invention.”)

[16] Id.

[17] Id.

[18] Id. at 8

[19] Id. at 9

[20] Id. at 9-10.

[21] A world-renowned economist who was the subject of the Academy Award-winning film “A Beautiful Mind” (2001).

[22] Id. at 11.

[23] Id.

[24] Id. at 13.

[25] Id. at 12.

[26] Id. at 13 (quoting an article that sets forth one portion of the formula, relating to “[t]he bargaining payoff for the licensee,” as “ $\pi_2^* = d_2 + [P_m Q_m - C_2(Q_m) - d_1 - d_2]/2 = P_m Q_m - C_2(Q_m) - r Q_m$ ”).

[27] Id. at 13-14.

[28] Oracle v. Google, Dkt. 642 (Dec. 6, 2011) at 1.

[29] Id. at 2.

[30] Id. at 5-6.

[31] Id. at 7-8.

[32] Id. at 7.

[33] Id. at 9. As later held, “[t]he main flaw in this method is that the universe of know-how included in Android during 2008-2011 was different from the universe of know-how included in the 2006 offer.” (Dkt. 1.9.12) at 8.

[34] Id.

[35] Id. at 10.

[36] Oracle v. Google, Dkt. 685 (Jan.9, 2012) at 13.

[37] Oracle v. Google, Dkt. 697 (Jan. 17, 2012) at 1.

[38] Oracle v. Google, Dkt. 698 (Jan. 17, 2012) at 6.

[39] See Oracle v. Google, Dkt. 785 (Mar. 14, 2012).

[40] See Id. at 3-8.

[41] See Id. at 11-13.

[42] Id. at 13-17.

[43] Id. at 9 (“Admittedly, this conclusion retreats from prior suggestions by the Court that apportionment should be on a claim-by-claim basis.”)

[44] Id. at 10.

[45] Id. at 17-18.

[46] Id. at 16-17.

[47] Id. at 17-18 (holding, for example, that Cockburn’s “determination of market-share impact was unreliable” because he “assumed that the sales prices of Android smartphones sold on eBay would remain constant even though he had previously determined that bidders would be less willing to pay for a slower Android” and that “[b]y not adjusting sales prices for Android, Cockburn likely overestimated the decrease in Android market share and thus, overestimated the revenue impact to Google of an Android smartphone without the patented features.”)

[48] Oracle v. Google, Dkt. 230 (Jul. 22, 2011) at 14.

[49] Id. at 15.

[50] Oracle v. Google, Dkt. 705 (Jan. 25, 2012).

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