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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

ORACLE AMERICA, INC.

Plaintiff,

v.

GOOGLE, INC.

Defendant.

Case No. CV 10-03561 WHA

**ORACLE'S OFFER OF PROOF ON
LITERALLY COPIED CODE FILES AND
INFRINGEMENT'S PROFITS**

Dept.: Courtroom 8, 19th Floor
Judge: Honorable William H. Alsup

1 Oracle submits this offer of proof in accordance with the Court’s directive this afternoon,
2 Tuesday May 15, 2012. However, Oracle reserves its position that, because Android infringes and
3 Android generates revenue, binding appellate case law provides the proper “causal nexus” that the
4 plaintiff must demonstrate is between the infringing product (Android) and the revenues, not between
5 the copyrighted work (the code files) incorporated in that product and the revenues. (*See* Dkt. No.
6 1106 (Oracle’s Brief in Response to Court’s Questions); Dkt. No. 1135 at 4–12 (Oracle’s Opposition
7 to Google’s Motion for Summary Judgment); Dkt. No. 1149 at 1–5 (Oracle’s Opposition to Google’s
8 Motion in Limine to Exclude Android Revenues).) Under the Copyright Act, it is up to Google, not
9 Oracle, to demonstrate that Google’s profits are not due to the code files. 17 U.S.C. § 504(b).

10 To carry its burden in showing gross revenues, 17 U.S.C. § 504(b), Oracle will not submit
11 Google’s overall gross revenues. Instead, Oracle will show only Android gross revenues, including
12 only revenues from advertisements on Android devices, direct-to-consumer sales of Nexus devices,
13 and revenues from the app store (Android Market, now GooglePlay). These revenues are carefully
14 tailored to the infringement and therefore carry Oracle’s burden of causation under settled case law.
15 *See, e.g., Davis v. The Gap, Inc.*, 246 F.3d 152, 160 (2nd Cir. 2001). Oracle will do so with reference
16 to documents Google itself generates, including the Android Profit & Loss Statement and the
17 Android OC Quarterly Reports (which now may exist under a different name). Even more
18 granularly, Oracle will offer proof consisting of (1) for TimSort, ComparableTimSort, or
19 rangeCheck, revenues relating to distribution of devices including the versions of Android on which
20 rangeCheck was distributed, and (2) for the decompiled versions, revenues relating to the distribution
21 of devices after the time the files were made available for use.

22 Google has refused to produce up-to-date data that enable us to estimate this up to the time of
23 trial, and accordingly we intend to offer the best estimates available.

24 **A. Google’s use of decompiled test files contributed to the success of, and profits from,**
25 **Android.**

26 1. Google’s use and copying of the decompiled files contributed to the profitability of
27 Android by speeding up the development process, ensuring quality, reducing development costs,
28 helping Google ensure that Android devices were well-tested and meet performance and functionality

1 requirements, and assuring Google of the presence of test files that themselves were widely used and
2 known to be reliable.

3 2. The decompiled files are not merely test files; they are the default implementation of the
4 security functions in Java.

- 5 • Dr. Reinhold will testify that the eight decompiled files are part of Sun’s security
6 architecture that validates security certificates.
- 7 • Professor Mitchell testified that the decompiled files relate to “access control lists,
8 which are a standard mechanism in computer security to govern access to a file or a
9 network or other resource.” (Mitchell at RT 1329:24-1330:2)
- 10 • Professor Mitchell also referred to them as the “default implementation for the security
11 functions.” (Mitchell at RT 1330:10-11.)
- 12 • Rubin wrote Larry Page on October 11, 2005 that one reason that Google was “making
13 Java central” to Android was “Java has a suitable security framework.” (TX 7)

14 3. Google has not offered any affirmative evidence that the decompiled files are limited to
15 use as test files.

- 16 • No witness has testified that the decompiled files are used as test files in Android.
- 17 • Even though Mr. Rubin testified that the “majority of the test files came from Noser”
18 he never testified that the eight decompiled files were test files and that those eight
19 decompiled files came from Noser. (Rubin at RT 1701:18-25.)
- 20 • Oracle will elicit testimony from Google about how the eight decompiled files were
21 developed and used by Android.

22 4. The use of the decompiled test files accelerated the time when Google received the
23 Android code.

- 24 • The eight decompiled files consist of at least 467 lines of code. (*See* TX 1031–1038.)
- 25 • Google’s expert, Dr. Astrachan, stated that there are 142 Android test files in his
26 opening report. (Astrachan Report ¶ 166.)
- 27 • Dr. Reinhold will testify that depending on the engineer’s experience and familiarity
28 with Java, creating these eight files would likely take weeks.

- For example, the PolicyNodeImpl class alone is intricate and would likely take days if not weeks to write from scratch because it requires substantial understanding of security certificates and all the surrounding code just to get started.
- As the Court has previously held in this case, whether writing the test files another way would have achieved the same speed is irrelevant to the infringer’s profits inquiry. (*See* Dkt. No. 632 at 6-7.)

5. If Google had not used Oracle’s copyrighted files, Google would have had to spend time and resources to write its own test files.

- All of the decompiled files were copyrighted and contained the statement: “Copyright 2004 Sun Microsystems, Inc. All rights reserved. SUN PROPRIETARY/CONFIDENTIAL. Use is subject to license terms.” (*See* TX 623.2 (PolicyNodeImpl.java); TX 623.3 (AclEntryImpl.java); TX 623.4 (AclImpl.java); TX 623.5 (GroupImpl.java); TX 623.6 (OwnerImpl.java); TX 623.7 (PermissionImpl.java); TX 623.8 (PrincipalImpl.java); TX 623.9 (CodeSource.java).)

6. As Prof. Mitchell also testified, even if these decompiled files were used only as test files, using them would assist Google to speed up the development process, ensure quality, and scale back on costs.

- He stated: “I think in the software development process, code is written and then tested. And by many measures the testing and quality assurance process can be twice as time consuming or twice as expensive as coding originally. So testing is a very important part of the software development. It's expensive. And software companies want to do it correctly so that the code that they ship is bug free and usable to their customers. (Mitchell at RT 1330:17-24)
- “[I]f this helped them test other code they were developing, and speed up and lessen the cost of testing and quality assurance, then that would have a big value to them.” (Mitchell at RT 1331:3-5.)

7. The use of the decompiled files enabled Google, among other things, to ensure that Android devices were well-tested and perform well.

- 1 • At his deposition, Google’s expert, Dr. Astrachan stated that software testing is “a
- 2 very important component of developing software” and that “I think most people
- 3 would agree that testing software and having files specifically for testing is good
- 4 engineering practice.” (Astrachan Dep. Tr. 160:3–17.)
- 5 • Rubin at RT 1698:11-1699:1
- 6 • As the Court has previously held in this case, whether other test files, developed
- 7 independently, would have served this purpose as well is irrelevant to the infringer’s
- 8 profits inquiry. (*See* Dkt. No. 632 at 6-7.)

9 8. Google reverse-engineered Sun’s class files and used the “decompiled” files in the
10 development of Android. (Mitchell at RT 1260:21–1261:3.)

11 9. Google used Noser to provide additional resources and accelerate the competition of
12 Android.

- 13 • On March 28, 2007, Google hired Noser to deliver a package of Java libraries. See
- 14 TX 30 (Statement of Work between Google and Noser, dated March 28, 2007)
- 15 • On April 19, 2007, Andy Rubin wrote to Alan Eustace regarding the “Noser
- 16 agreement”: “This is our final java solution – consultants to take our java libraries as a
- 17 starting place, and bring our java classes up to J2SE spec, in a clean room
- 18 environment. They have signed up to a pretty aggressive schedule for quite a bit of
- 19 work. This deal replaces the \$18M approved acquisition that we decided to pass on.
- 20 Barring any unforeseen surprises, I think this is our last big deal (\$4M).” (TX 438.)

21 10. The decompiled files are still available on Google's website (in earlier versions of
22 Android).

- 23 • On October 30, 2010, Bornstein deleted the PolicyNodeImpl.java file in Froyo. (TX
- 24 773; *see also* TX 896.1 (decompiled code for PolicyNodeImpl from Java SE) and TX
- 25 1031 (identical decompiled code for PolicyNodeImpl from Froyo).)
- 26 • On January 13, 2011, Bornstein deleted the AclEntryImpl files in Froyo. (TX 770; *see*
- 27 *also* TX 896.3 (decompiled code for AclEntryImpl files in Java SE) and TX 1033
- 28 (identical decompiled code for AclEntryImpl files in Froyo).)

- 1 • Bornstein admits that the files are still available to the public. (Bornstein at RT
2 1832:3-10 (“THE COURT: Isn’t it true that within recent months you could still go on
3 the Google website and find these very files with the same code in there? True or
4 not? THE WITNESS: You can look at the history and see those files. THE COURT:
5 So it’s there, available to the public. True? THE WITNESS: Fair enough.”).)

6 **B. Google’s use of TimSort and rangeCheck contributed to the success of, and profits from,
7 Android.**

8 1. As discussed below, rangeCheck contributed to the profitability of Android in a number of
9 ways. RangeCheck is a necessary component of Timsort, which in turn provides significant
10 improvements – by Josh Bloch’s estimates, a 20x improvement – to the performance of Android
11 devices. In addition, rangeCheck itself is valuable to Android in that Bloch specifically chose to
12 include rangeCheck in Timsort because he wanted to include a program that would have the behavior
13 and throw the exceptions expected from the Java version of Timsort. Further, as Dr. Mitchell
14 testified, rangeCheck is an uncommonly important method, receiving 2600 calls during boot up of the
15 device alone. Moreover, rangeCheck has been installed on actively used Android phones, generating
16 revenues for Google, for over two years.

17 2. TimSort provides an important function that enhances the performance of Android,
18 especially with respect to applications that require a lot of sorting. (TX 184: “I am currently working
19 on a drop-in replacement for Harmony's sort function, which has demonstrated a huge up to 20X
20 performance improvements on G1 hardware. This will be my first contribution to Android.”)

21 3. TimSort is a useful part of Android because it makes arrays sort much faster.

- 22 • Josh Bloch testified at trial: “Seeing a speed up 20 times faster was not uncommon.
23 I’ve seen things even more than that and, you know, twice as fast is a good sort of
24 overall estimate if you average everything.” (RT 812:19–813:3.)
- 25 • At his deposition, Mr. Bloch testified regarding use of Rangecheck “if there were an
26 application that sorted a lot of data, it could make it significantly faster.” (Bloch Dep.
27 at 163:13-164:19)

28 4. It was important to Bloch that rangeCheck be identical to code in the Java platform so that

1 it would throw the same exceptions and behave in the same way as the Java code he copied. At his
2 July 8, 2011 deposition, Mr. Bloch testified that to provide the performance boost, it was necessary
3 that the rangeCheck that appears in Android be identical to Sun's Java rangeCheck:

4 Q. So why would RangeCheck be the one that requires the signature to be
5 similar?

6 A. Because it is the only piece of functionality that TimSort shares with
7 the remainder of arrays, java.util.arrays. TimSort is a 700 and -- you
8 know, it's a big long file, and the only functionality that it shares is this
9 little function here, and it is very much in the interest of the users of the
10 new sort that it behave exactly like the old sort. You want it to throw
11 exactly the same exception. You want it to actually emit the same prose.
12 You want that text to be the same.

13 So, you know, it's the one where it makes sense to do it.
14 Everything else derives from Tim Peters' implementation. And, you
15 know, here is a little piece of the interface that is specific to Java that
16 doesn't exist in C.

17 (Bloch Dep. at 181:21-182:11)

- 18 5. Android as distributed in 2009, 2010 and 2011 included Oracle's copyrighted work
19 (rangeCheck) (Anticipated testimony of Rubin, Mitchell, and Bloch)
- 20 6. rangeCheck is a useful piece of code that is called during different Android functions.
- 21 • Prof. Mitchell conducted an analysis into the significance of rangeCheck to other code
22 in the same class file. (RT (Mitchell) 1329:5–11.)
 - 23 • Prof. Mitchell found that a number of other source code in other files called on
24 rangeCheck. (RT (Mitchell) at 1329:5–14.)
 - 25 • Prof. Mitchell also did an experiment in which he counted the number of times that
26 rangeCheck was called in booting up a phone, and found that the function was called
27 2,600 times just in powering on the device or starting the emulator: “a pretty big
28 number for the number of calls to this function.” (RT (Mitchell) at 1329:5–21.)
- 29 7. From at least early-2009 through mid-2011, Android included rangeCheck. (See TX 186
30 (2/5/09 email stating that the Cupcake Harmony arrays sort is being replaced with TimSort); TX 109
31 (copy of Android code copyrighted 2008 containing TimSort); Bloch Dep. 170:2-11; Bloch at RT
32 822:4–5 (TimSort and ComparableTimSort finished in early 2009).)

1 8. Though Google claims that it has removed rangeCheck from the latest release of Android,
2 Google has admitted that the previous releases of Android that include rangeCheck are still available
3 on Google’s website. These releases (including the infringing rangeCheck code) continue to be used
4 by Android handset manufacturers. (See March 28, 2012, Hearing Tr. 24:10–25:17; Bornstein at RT
5 1832:3–10.)

6 9. Dr. Mitchell noted that rangeCheck was a “useful” component of the library it was in, and
7 that there was some “subtlety” to the code. (Mitchell at RT 1316:12-1317:5.) Bloch himself admits
8 “the code is reasonably complex as its stands.” (TX 186.)

9 10. Bloch knew that Sun had copyrighted rangeCheck. (Bloch Dep. at 175:21-176:7)

10 11. Bloch copied because he thought it would be “good engineering” to do so. (Bloch at RT
11 754:9-16; Bloch at RT 753:23-25).

12 12. Google does not deny copying. (Google Opening RT 265:4-24; Bloch at RT at 827:5-17;
13 see also RT 1254:9-1255:21 (Mitchell))

14 13. Copying rangeCheck saved Google time – and time was very important to Google.
15 (Anticipated Schmidt, Bloch, and Mitchell testimony) (*See* Section D, below)

16 14. Google knew it was wrong (and against company policy) to use people with knowledge of
17 Sun’s intellectual property to develop Android code.

- 18 • Google would not have lightly violated company policy and used someone like
19 Bloch to develop Android Code unless Google believed it was important to do so
20 and that the benefit was worth it.

21 15. Google knew it was illegal (and against company policy) to literally copy code from Sun's
22 implementation of Java in developing Android.

- 23 • Google’s willingness to do so, by allowing engineers with past Sun and Java
24 experience, corroborates the value of copying to Google and Android.
- 25 • Google would not have lightly violated company policy (and the law) and used
26 sun’s copyrighted code unless Google believed it was important to do so and that
27 the benefit was worth it.

1 16. Google still makes rangeCheck available on its website. (Bornstein at RT 1832:3–10.)

2 17. Dr. Mitchell’s unrebutted testimony shows that the code is actually still available on
3 millions of phones, including Samsung phones. (Mitchell at RT 1255:22-1256:4; 1263:11-1264:23.)

4 **C. The jury should be able to infer value from willfulness.**

5 1. Google as an organization prides itself on its commitment to ethical behavior and
6 protection of intellectual. (Anticipated Schmidt, Page, and Rubin testimony)

7 2. Google’s public identity as a company is reflected in its well-known motto, “Don’t be
8 evil. (Anticipated Schmidt, Page, and Rubin testimony)

9 3. Google agrees that protection of intellectual property is critical to its business. At his
10 deposition on August 23, 2011, Google chairman and former CEO Eric Schmidt testified as follows:

11 Q. Now, as a general proposition, Google in general, and you in particular,
12 believe that intellectual property should be protected; correct?

13 A. I do.

14 Q. And that includes both patents and copyrights; correct?

15 A. Of course.

16 Q. And you believe that protection of intellectual property is critical not only to
17 your business but to software and hardware innovation generally; correct?

18 A. I do and we do.

19 (Schmidt Depo. Tr. 87:24-88:10)

20 4. Google witnesses admitted that it would be improper to copy code, including rangeCheck.
21 (Bloch Dep., Bornstein, others)

22 5. Google would not risk its brand and reputation by engaging in infringement unless the
23 benefits of doing so were substantial.

24 6. In its most recent 10-K filing, Google stated: “Maintaining and enhancing the ‘Google’
25 brand is critical to expanding our base of users, advertisers, Google Network Members, and other
26 partners.” (TX 1216 at p. 14.)

27 7. Despite the risk, Google copied knowingly, deliberately, or with heedless disregard for
28 Sun’s intellectual property rights.

1 8. On January 6, 2009, Android team member Hiroshi Lockheimer sent an email to Android
2 engineers Dan Bornstein and Bob Lee in which Mr. Lockheimer wrote: “I’m a little nervous about
3 signing Noser up to do any more work for us – but that’s from a purely business perspective. Those
4 guys (their management team) are super shady.” (TX 281)

5 9. The contracts between Google and Noser provided that Noser would be paid a flat fee for
6 the work that it did for Google. (TX 30, 70, 74; anticipated Rubin testimony)

7 10. On April 19, 2007, Rubin emailed Alan Eustace of Google about the Noser contracts,
8 stating that Noser would be paid \$4 million and that “They have signed up to a pretty aggressive
9 schedule for quite a bit of work. This deal replaces the \$18M approved acquisition that we decided to
10 pass on.” (TX 438)

11 11. Noser copied eight separate Java files, in their entirety, by decompiling them. (RT
12 1257:3-1262:1)

13 12. At trial, Dr. Mitchell testified as follows:

14 Q. So in a nutshell, what is decompilation?

15 A. Decompilation is undoing the work of the compiler to get the source code back
16 from the class file.

17 Q. And why would somebody who wanted to copy code go through this exercise?

18 A. It’s a quick and easy way to get source code if you need it, if you have the
19 class files at your disposal.

(Mitchell at RT 1257:14-20)

20 13. At trial, Dr. Mitchell testified as follows:

21 Q. In particular, with respect to decompilation, Dr. Mitchell, could that happen by
22 accident?

23 A. No, someone has to decide to do that. Basically, I have to decide to cheat in a
24 sense and produce your source code by decompiling someone else’s class file.

(RT 1265:11-15)

25 14. At trial, Bornstein testified as follows:

26 Q. In fact, Josh Bloch, who created the two files above the set that you deleted,
27 TimSort and ComparableTimSort, he had prior Java knowledge and was assigned to
28 work on the Android core libraries; wasn’t he, sir? [Overruled objection]

Q. Josh Bloch had prior Java knowledge; correct, sir?

A. That’s right.

1 Q. And he was assigned to work on the Android core libraries; wasn't he, sir?

2 A. That's correct.

3 (RT 1860:13-1861:1)

4 15. Google employee Josh Bloch copied code from arrays.java to create the virtually
5 identical rangeCheck code in Android. (Bloch at RT 755:6-16; TX 1092; TX 794; TX 623.1, TX
6 46.27; TX 46.28.)

7 16. The code that Bloch copied bears copyright notices. (TX 623.1 (arrays.java code file,
8 which states: "Copyright 2004 Sun Microsystems, Inc. All rights reserved. SUN
9 PROPRIETARY/CONFIDENTIAL. Use is subject to license terms.")

10 17. Bloch testified at trial as follows:

11 Q. Now, you were aware that while you were at Sun, that Sun regularly and
12 routinely attached copyright notices to the code that it was writing; correct, sir?

13 A. Yes, I was.

14 Q. And it attached copyright notices to the documentation it was publishing,
15 correct, sir?

16 A. Yes.

17 Q. You were aware Sun was asserting copyright protection over its programs;
18 correct, sir?

19 A. Yes, I was aware of that.

20 (RT 756:9-18)

21 18. On December 16, 2008, Bloch emailed Android head Andy Rubin asking to be added to
22 the Android team. In that email, Bloch wrote: "I am currently working on a drop-in replacement for
23 Harmony's sort function which has demonstrated a huge (up to 20x) performance improvement on G1
24 hardware: [hyperlink omitted] This will be my first contribution to Android." (TX 184)

25 19. Shortly thereafter, Rubin approved adding Bloch to the Android team, despite Rubin's
26 knowledge that Bloch's involvement with the JCP and direct experience with Java code created a
27 "conflict." On January 27, 2009, Rubin and Eric Chu exchanged emails in which they wrote as
28 follows (TX 1060):

Chu: "Now that Josh is part of the Android team, what's your perspective on his
involvement with Java and Sun? He is quite active both within Google and on the
JCP."

1 Rubin: “Scale it back? I dont [sic] know. Seems like a conflict.”

2 Chu: “Yup. That’s why I mentioned it. Who should talk to him. Danfuzz? [Dan
3 Bornstein] If you agree, I can talk to Dan about this.”

4 Rubin: “Okay.”

5 Chu: “Talked to Dan. He’ll keep an eye on it. He said you already approved Josh’s
6 current Java activities before he transferred.”

7 20. Bloch testified at trial that no one at Google ever discussed the conflict with him. (RT at
8 755:17-756:8)

9 21. This and other evidence will show that Google cut corners in dealing with Sun’s
10 intellectual property, despite the importance of Google’s own reputation and Google’s own
11 commitment to intellectual property, because it expected the advantages of even very small gains in
12 performance and time to market to yield substantial economic benefits.

13 **D. Because of Android’s enormous scale, its enormous economic value to Google, and the**
14 **importance of quickly establishing a market presence in a dynamic industry subject to**
15 **extensive network effects, even very small advantages have substantial economic**
16 **consequences.**

17 1. Google recognized the importance of accelerating the development, distribution,
18 acceptance, and use of Android.

- 19 • Testimony by Eric Schmidt, Larry Page, and Andy Rubin.

20 2. Accelerating the development, distribution, acceptance, and use of Android increased
21 Google’s profits.

- 22 • Testimony by Eric Schmidt, Larry Page, and Andy Rubin.
- 23 • Documents including Android revenues and comparisons to revenues from non-
24 Android devices. (E.g., TX 1203.1 at p. 5.)
- 25 • During October 14, 2010 earnings call, Google CEO Eric Schmidt explained: “if
26 they are using Android systems, the revenue that we share and the searches are
27 shared with the operator, but not with anybody else. So, again, it’s more
28 lucrative.” (TX 951 at p. 9.)

1 3. Both the Android team and top Google executives placed a premium on Android's
2 performance, and such performance increased Google's revenues and profits.

- 3 • Testimony by Eric Schmidt, Larry Page, and Andy Rubin.
- 4 • Deposition testimony by Eric Schmidt that speed mattered for Android. (Schmidt
5 Depo. Tr. at 48:11-21.)
- 6 • July 17, 2007 Android meeting notes: "LP: Wants all screens to load in <200ms."
7 (TX 433 at p. 2.)
- 8 • July 17, 2007 email from Andy Rubin regarding Android: "The feedback was that
9 speed matters." (TX 223 at p. 2.)
- 10 • July 17, 2007 Android meeting notes: "We should focus on speed first, then
11 beauty. Speed without beauty is still a win." (TX 433 at p. 2.)
- 12 • December 20, 2010 email from Dr. Schmidt: "For products--milliseconds matter
13 to users." (TX 426 at p. 2.)

14 4. Ensuring that Android got to market quickly increased Google's profits.

- 15 • Testimony by Eric Schmidt, Larry Page, and Andy Rubin.
- 16 • December 2008 Android presentation: "Why did Google invest in Android? ...
17 Don't get locked out!" (TX 31 at p. 12.)
- 18 • Android presentation to Google executives: "Android RPMs at \$13.5, higher than
19 \$7.8 for iPhone." (TX 1203 at p. 5.)
- 20 • October 25, 2005 Google meeting notes: "Android exists to make sure folks can't
21 block access to Google." (TX 195 at p. 4.)
- 22 • During an October 14, 2010 earnings call, then Google CEO Eric Schmidt
23 explained: "if they are using Android systems, the revenue that we share and the
24 searches are shared with the operator, but not with anybody else. So, again, it's
25 more lucrative." (TX 951 at p. 9.)
- 26 • Trial testimony by Eric Schmidt regarding Google's interest in getting Android to
27 market quickly. (Schmidt RT at 1458:1-8.)

28

- 1 • July 26, 2005 Android presentation identifying Google’s goal with Android as to
2 “Disrupt the closed and proprietary nature of the two dominant industry players:
3 MSFT and Symbian.” (TX 1 at p. 6.)
- 4 • Google documents confirm that Google was under time pressure to “[c]hallenge
5 Symbian and Microsoft by beating them to volume in the handset space.” (TX 6 at
6 p. 24.)
- 7 • November 6, 2006 Google presentation: “The risk to Google is that as more
8 manufacturers exist the software business, and more 3rd party developers sign on
9 to the MSFT platform because it is ubiquitous and has open APIs, we could face a
10 repeat of the browser wars except this time on handsets: Google has content we’d
11 like to deploy, but are blocked by a competitor that has control of the platform.”
12 (TX 4003 at p. 19.)
- 13 • Andy Rubin told Larry Page in October 2005 that the alternatives to taking a
14 license from Sun for Java were “suboptimal.” (TX 7 at p. 2.)
- 15 • Deposition testimony by Eric Schmidt indicating that Google wanted as quick a
16 time to market with Android as possible. (Schmidt Depo. Tr. at 49:9-12.)
- 17 • Deposition testimony by Larry Page that Google was concerned that Microsoft
18 could develop a closed operating system for smartphones that would allow
19 Microsoft to exclude Google services. (Page Depo. Tr. at 14:14-15:4; 16:10-25.)
- 20 • Deposition testimony by Andy Rubin (Rubin Ind. Depo. Tr. (7/27/2011) at 179:12-
21 180:12):

22 Q. So, actually, it looks like you were thinking of trying to
23 ship in December of 2006; right?

24 A. I was under incredible schedule pressure, and as I
25 mentioned before, anything that we acquired or whether we
26 partnered with Sun and acquired their
27 technology, it would have improved our schedule.

28 Q. So -- but this is talking about Skelmir now; right?

A. Yep.

Q. The deadline you were talking about, the December 2006
deadline, you said, “I was under incredible schedule pressure.”

A. Yep.

Q. What did you mean by that?

1 A. Well, look, I mean, you have a window of opportunity in
2 smartphones. I had competitors all over the place. When I started
3 the company, Microsoft was my competitor. You know, there
4 was Symbian in there as well, and, you know, all sorts of Linux
5 initiatives. You have to ship as soon as feasibly possible.

6 I mean, you go to extraordinary lengths to ship sooner,
7 because it's a very dynamic market. And it could shift directions
8 at any time. Right. So my job
9 as, you know, the architect of this business concept was to just do
10 everything that I possibly could to get my solution to the market in
11 the shortest time possible.

- 12 • Trial testimony by Dan Bornstein that he felt there was an urgency to get Android
13 developed and released. (Bornstein RT at 1844:15-19.)
- 14 • October 12, 2005 email from Rich Miner to Andy Rubin: “It is widely believed
15 that if an open platform is not introduced in the next few years then Microsoft will
16 own the programmable handset platform.” (TX 8 at p. 2.)
- 17 • February 5, 2006 Google presentation notes, regarding proposed deal with Sun:
18 “Dramatically accelerates our schedule.” (TX 15 at p. 7.)
- 19 • April 21, 2006 Google presentation notes, regarding proposed deal with Sun:
20 “Dramatically accelerates our schedule.” (TX 2 at p. 5.)
- 21 • January 17, 2007 Android meeting notes: “We are a technology project, with the
22 goal of quick time to market using approved open source, mobile technology. ...
23 At CES, saw a spike of interest from companies looking to compete with iPhone.”
24 (TX 151 at p. 2.)
- 25 • November 7, 2006 Android meeting notes: “Larry: Disappointed in Android’s
26 timing.” (TX 401 at p. 3.)
- 27 • On January 15, 2007, following the release of the iPhone, Dr. Schmidt wrote: “I’d
28 like to have Android GPS as soon as practicable.” (TX 216 p. 1.)
- April 2010 email: “Apple is going to make sure only they have a shot at mobile
advertising. We need android to win more than ever.” (TX 210 at p. 1.)
- August 2010 email: “Ultimately the OC sees this as a fight against Apple.” (TX
221 at p. 1.)

1 5. The Android team specifically brought engineers with known exposure to Sun code onto
2 the Android team to further its success.

- 3 • Testimony by Andy Rubin regarding Josh Bloch’s work on Android, and Google’s
- 4 procedures to preventing copying in connection with Android.
- 5 • Testimony by Josh Bloch from Phase 1 regarding his prior Java experience, his
- 6 Android work, and his copying.
- 7 • January 2009 email exchange between Andy Rubin and Eric Chu where, when
- 8 asked about Bloch’s involvement with Android, Rubin wrote: “Seems like a
- 9 conflict.” Eric Chu then wrote that Bornstein said Rubin had “already approved
- 10 Josh’s current Java activities before he transferred.” (TX 1060 at p. 1.)
- 11 • Testimony by Dan Bornstein from Phase 1 that Google assigned Josh Bloch to
- 12 work on Android knowing he had prior Java knowledge. (Bornstein RT at
- 13 1860:13-1861:1.)

14 6. Information regarding the specific causes of Android’s profitability and success is largely
15 or uniquely in Google’s possession.

- 16 • Testimony by Larry Page, Eric Schmidt, Andy Rubin, and Aditya Agarwal.
- 17 • Financial documents produced by Google, including documents containing
- 18 Android P&Ls.

19 7. If Google witnesses cannot specify what portion of Android revenues is attributable to any
20 particular element, and cannot disentangle the different elements of profit, then no one can.

- 21 • Testimony by Larry Page, Eric Schmidt, Andy Rubin, and Aditya Agarwal.
- 22 • Deposition testimony by Andy Rubin, Aditya Agarwal, and Google’s copyright
- 23 damages expert Dr. Cox regarding the calculation of Android profits.
- 24 • Google interrogatory response: “Google states that any financial data relating to
- 25 mobile platforms from prior to January 2009 that it may have maintained are
- 26 inaccurate and unreliable.”
- 27 • Financial documents produced by Google, including documents containing
- 28 Android P&Ls.

1 **E. The causal nexus in this case is equal to or greater than the causal nexus in cases in which**
2 **awards of infringer’s profits have been allowed.**

3 Oracle’s proffer of causal nexus in this case is equal to or greater than cases in which an award of
4 infringer’s profits has been allowed.

5 1. For instance, in the leading Ninth Circuit case on the issue, *Polar Bear*, the plaintiff in
6 *Polar Bear* was not required to show that the infringed kayaking images, used as part of larger
7 promotional efforts, had any effect on consumers at all. Instead, the plaintiff only had to show that
8 the entire infringing advertisement may have been seen by the purchasers. *Polar Bear Prods., Inc. v.*
9 *Timex Corp.*, 384 F.3d 700, 711 (9th Cir. 2004). In *Polar Bear*, Timex included Polar Bear’s
10 copyrighted material in a larger promotional video shown at a trade show and in one advertisement in
11 a larger promotional booklet jointly prepared with Mountain Dew. *Id.* at 704, 712. The promotional
12 materials themselves generated no revenue. The court permitted recovery of indirect profits
13 associated with watches purchased at trade shows where the video was played and watches associated
14 with a promotion including the images. The Ninth Circuit specifically rejected the idea that it was
15 Polar Bear’s burden to show a causal nexus between the images and the profits: “there is no
16 requirement that Polar Bear put Timex customers on the witness stand to testify that they purchased
17 watches because of Timex’s use of ‘PaddleQuest’ images.” *Id.* at 715 (emphasis added). Instead,
18 “Polar Bear satisfied its burden of establishing the infringer’s relevant gross revenue, as required by §
19 504(b), by presenting sales figures from Timex’s press releases stating that the Mountain Dew
20 promotion generated \$564,000 in sales” and was “not required to separate the gross profits resulting
21 from the infringement from the profits resulting from other sources”—that was Timex’s burden. *Id.*
22 at 712–13. (See also Dkt. No. 1135 at 8–11 (Oracle’s Opposition to Google’s Motion for Summary
23 Judgment) (discussing *Polar Bear* at length).)

24 2. The plaintiff in *Cream Records* was not required to show that the advertising company
25 was paid because it used the ten infringing musical notes. Instead, the plaintiff had to show only that
26 the advertising company was paid for the entire infringing ad. In *Cream Records, Inc.*, the defendant
27 copied ten notes from a song, “The Theme From Shaft,” and used those ten notes without permission
28 in a beer commercial. The plaintiff provided proof of the total fees that the advertising company,

1 Benton & Bowles, was paid for producing the infringing commercial, and sought those fees as an
2 infringer's profits award. *Cream Records, Inc. v. Joseph Schlitz Brewing Co.*, 864 F.2d 668, 669 (9th
3 Cir. 1989) ("*Cream I*"). The Court of Appeals held it was clear error for the district court to award
4 one percent of the fees figure based only on its opinion that the infringement was minimal. *Id.* at
5 669–70. Cream was not required to show that the reason Benton & Bowles was paid for the
6 advertisement was that they used the ten infringing notes. Instead, *Cream II* demonstrates that the
7 fact that those notes were in the ad at all was sufficient to shift the burden to the defendants to
8 apportion down their profits. (See also Dkt. No. 1135 at 6–7 (Oracle's Opposition to Google's
9 Motion for Summary Judgment) (discussing *Cream Records*.)

10 3. The plaintiffs in *Frank Music* were also not required to show that excerpts from *Kismet*
11 shown as part of a review at a hotel/casino had any relationship to the various streams of casino
12 revenue, including gambling revenue, that the plaintiffs sought to recover as infringer's profits.
13 Instead, the plaintiffs merely had to show that *Kismet* was shown in the casino. In *Frank Music*, the
14 plaintiffs owned the copyrights on a play called *Kismet*. The infringing revue, *Hallelujah Hollywood*,
15 featured ten acts of singing, dancing, and variety performances; it featured a live tiger, jugglers, and
16 the magicians Siegfried and Roy. One of the ten acts included a "tribute" to *Kismet* with six minutes
17 of selected musical numbers that infringed the plaintiff's copyrights. *Frank Music Corp. v. Metro-*
18 *Goldwyn-Mayer, Inc.*, 772 F.2d 505, 518 (9th Cir. 1985) ("*Frank Music I*"). Notwithstanding the fact
19 that the infringing material was just a few minutes of both the copyrighted play and part of a much
20 longer revue including numerous elements beyond the copyrighted material, the Court of Appeals
21 found that the plaintiffs were entitled not just to profits on ticket sales from the infringing revue, but
22 also to indirect profits amounting to a percentage of "the hotel's guest accommodations, restaurants,
23 cocktail lounges . . . the casino itself, conventions and banquet facilities, tennis courts, swimming
24 pools, [and the] gym and sauna," all because *Hallelujah Hollywood* – the ten-act show containing six
25 minutes of infringing content – had some promotional value for the hotel as a whole. *Frank Music*
26 *Corp. v. Metro-Goldwyn-Mayer Inc.*, 886 F.2d 1545, 1550 & n.4 (9th Cir. 1989) ("*Frank Music II*")
27 (1909 Act). The defendants in *Frank Music* admitted that the hotel and gaming operations of the
28 hotel were "materially enhanced by the popularity of the hotel's entertainment[, including]

1 ‘Hallelujah Hollywood[.]’ *Frank Music I*, 772 F.2d at 517. The defendant never admitted that the
2 selections from *Kismet* enhanced its revenues, only that its entire entertainment program, including
3 the entire revue that included *Kismet*, did. *Id.* The Ninth Circuit also specifically rejected a
4 “quantitative comparison” of the number of minutes of infringing music as compared to the entire
5 revue. *Frank Music II*, 886 F.2d at 1548. It also rejected the proposition that, simply because the
6 infringing element could be “omitted and the show goes on,” the infringing element was unimportant
7 in the first instance. *Frank Music I*, 772 F.2d at 518. (*See also* Dkt. No. 1135 at 7–8 (Oracle’s
8 Opposition to Google’s Motion for Summary Judgment) (discussing *Frank Music*); Dkt. No. 1149 at
9 4–5 (Oracle’s Opposition to Google’s Motion in Limine (same).))

10 4. The plaintiff in *Andreas* was not required to show that the infringing words that appeared
11 in a commercial generated any additional sales of Volkswagen’s Audi TT coupe. Instead, it was
12 required to show only that the infringing advertisement generated revenues. In *Andreas*, the Eighth
13 Circuit held that a plaintiff adequately established the causal nexus between an Volkswagen’s use of
14 infringing material in the widely aired “Wake Up” commercial and a portion of profits from the sale
15 of the automobile. *Andreas v. Volkswagen of Am., Inc.*, 336 F.3d 789, 791 (8th Cir. 2003). The
16 infringed text in *Andreas* was only about thirty words long, and the Audi TT Coupe commercial
17 copied only nine words from the text.. *Id.* The jury awarded 10% of Audi’s after-tax profits on the
18 TT coupe sales during the time that the commercial aired as infringer’s profits. *Id.* at 795. After the
19 district court found there was an insufficient causal connection, the Eighth Circuit reversed and
20 reinstated the jury’s verdict, concluding that “Andreas introduced more than mere speculation that the
21 Wake Up commercial contributed to sales of the TT coupe.” *Id.* at 796. The Eighth Circuit did not
22 require a nexus between the infringing words and the revenues; it required only a nexus between the
23 advertisement and the revenues. In fact, it was error for the district court to require Andreas to
24 establish that the infringing words drove revenues, because to do so would improperly shift the
25 burden of proof and “plac[e] the detriment of any speculation on Andreas rather than Audi,” *id.* at
26 797. Placing the burden on Andreas, moreover, would contravene the general rule that “[a]ny doubt
27 as to the computation of costs or profits is to be resolved in favor of the plaintiff.” *Id.* at 795 (citing
28 *Frank Music I*, 772 F.2d at 514). Andreas was required only to introduce “more than mere

1 speculation that the Wake Up commercial” – not the words themselves – “contributed to the sales of
2 the TT coupe.” *Id.* at 796–97. Because “the jury had enough circumstantial evidence to find that the
3 commercial contributed to the profitable introduction of the TT coupe,” that “shifted the burden to
4 Audi of showing what effect other factors had on its profits.” *Id.* at 797. The court made clear that
5 the defendant’s burden—not Andreas’s—included “establishing that its profit was attributable to
6 factors other than the infringing words: the other two commercials that did not contain the infringed
7 words, other parts of the Wake Up commercial, customer loyalty, brand recognition, etc.” *Id.* at 797.
8 *Andreas* also rejected the notion that a copyright plaintiff was required to have a customer testify that
9 the infringement caused its purchase decision. *Id.* at 797. (*See also* Dkt. No. 1135 at 10–11 (Oracle’s
10 Opposition to Google’s Motion for Summary Judgment) (discussing *Andreas*.)

11 5. The plaintiff in *Davis* was not required to show that the eyeglasses in the infringing Gap
12 ad had any effect on consumers whatsoever. Instead, the plaintiff only had to present gross revenues
13 from the subsidiary whose products were advertised, rather than its revenues from its parent. In
14 *Davis*, an advertisement for clothing from The Gap included a photograph of a man wearing an
15 artist’s copyrighted eye jewelry. *Davis*, 246 F.3d at 157. The copyrighted eye jewelry was a minute
16 portion of the advertisement, which depicted a group of seven young people in their twenties standing
17 in a loose V formation and “staring at the camera with a sultry, pouty, provocative look. The group
18 projects the image of funky intimates of a lively after-hours rock music club. They are dressed
19 primarily in black, exhibiting bare arms and partly bare chests, goatees (accompanied in one case by
20 bleached, streaked hair), large-brimmed, Western-style hats, and distinctive eye shades, worn either
21 over their eyes, on their hats, or cocked over the top of their heads.” *Id.* at 157. Only one of these
22 young people was wearing the copyrighted eye jewelry. The court held that *Davis* could seek
23 infringer’s profits, but could not carry his burden by stating that The Gap’s parent company earned
24 \$1.668 billion during and shortly after the period when the infringing advertisement ran. Instead, he
25 was required simply to tailor the revenue he was seeking to only the particular business unit—The
26 Gap:

27 Because the ad infringed only with respect to Gap label stores and eyewear, we agree with the
28 district court that it was incumbent on *Davis* to submit evidence at least limited to the gross
revenues of the Gap label stores, and perhaps also limited to eyewear or accessories. Had he

1 done so, the burden would then have shifted to the defendant under the terms of § 504(b) to
2 prove its deductible expenses and elements of profits from those revenues attributable to
factors other than the copyrighted work.

3 *Id.* at 160. There was no discussion of any requirement that Davis show that even one article of The
4 Gap’s inventory was sold because of the use of the copyrighted eye jewelry in the advertisement.
5 (*See also* Dkt. No. 1135 at 5–6 (Oracle’s Opposition to Google’s Motion for Summary Judgment)
6 (discussing *Davis* at length).)

7 **CONCLUSION**

8 The exemplar evidence cited above and additional testimony and documents that Oracle will
9 offer at trial are sufficient to satisfy any burden it may have to establish a “causal nexus” under 17
10 U.S.C. § 504(b).

11
12 Dated: May 15, 2012

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