1 DONALD F. ZIMMER, JR. (SBN 112279)
   fzimmer@kslaw.com
2 CHERYL A. SABNIS (SBN 224323)
   csabnis@kslaw.com
3 KING & SPALDING LLP
4 101 Second Street - Suite 2300
   San Francisco, CA 94105
5 Telephone: (415) 318-1200
   Facsimile: (415) 318-1300
6

7 SCOTT T. WEINGAERTNER (*Pro Hac Vice*)
   sweingaertner@kslaw.com
8 ROBERT F. PERRY
   rperry@kslaw.com
9 BRUCE W. BABER (*Pro Hac Vice*)
   bbaber@kslaw.com
10 KING & SPALDING LLP
11 1185 Avenue of the Americas
   New York, NY 10036-4003
12 Telephone: (212) 556-2100
   Facsimile: (212) 556-2222
13

14 Attorneys for Defendant
   GOOGLE INC.

   IAN C. BALLON (SBN 141819)
   ballon@gtlaw.com
   HEATHER MEEKER (SBN 172148)
   meekerh@gtlaw.com
   GREENBERG TRAURIG, LLP
   1900 University Avenue
   East Palo Alto, CA 94303
   Telephone: (650) 328-8500
   Facsimile: (650) 328-8508

15
                    UNITED STATES DISTRICT COURT
16
                  NORTHERN DISTRICT OF CALIFORNIA
17
                     SAN FRANCISCO DIVISION
18

19 ORACLE AMERICA, INC.   Case No. 3:10-cv-03561-WHA

20   Plaintiff,   Honorable Judge William Alsup

21   v.   **DEFENDANT GOOGLE INC.'S**
                                          RESPONSIVE CLAIM CONSTRUCTION
22 GOOGLE INC.   **BRIEF**

23   Defendant.

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I.   **INTRODUCTION**

Pursuant to Patent Local Rule 4-5(b) and the Court's November 29, 2010 *Order Entering Joint Proposed Claim Construction Schedule* (Dkt. 59), Defendant Google Inc. ("Google") submits this responsive claim construction brief.

The claim constructions offered by Plaintiff Oracle America, Inc. ("Oracle") are at odds with settled governing precedent of the U.S. Court of Appeals for the Federal Circuit and prior decisions of this Court. They are contradicted by the intrinsic record, frequently defy common sense, and would lead to unfair results based on legal error.

In this brief, Google responds to Oracle's erroneous arguments, beginning with a necessary rebuttal to the misleading discussion of Java with which Oracle's brief begins.

II.   **"JAVA" WAS BUILT ON WELL-KNOWN PRIOR ART CONCEPTS**

Whatever can be said of "Java," its central concepts were hardly invented by Sun Microsystems, Inc. (now Oracle).[1] Virtual machines were not invented by Sun, nor was the "write once, run anywhere" concept.[2] The concepts of "bytecode," application programming interfaces, and much of the syntax of the Java programming language were all well-known and used before either the Java programming language or the "Java platform" was created. None of the Asserted Patents address those central concepts.

At most, the Asserted Patents purport to address efficiency enhancements that were conceived and pursued by others before Sun decided to file patent applications on them, as Google will demonstrate both in this action and in the U.S. Patent and Trademark Office ("USPTO" or "Patent Office").[3] Java was adapted from prior art, much of which dates back to

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[1]   Sun was renamed "Oracle America" after Oracle Corporation purchased Sun in 2010. In this brief, Google will refer to "Oracle" when referring to current events and to "Sun" when referring to past events, including the prosecution of the patents in suit.

[2]   *See, e.g.*, Ex. G, John Gough, *Virtual Machines, Managed Code and Component Technology*, at 1-2 (IEEE 2005) (discussing similar approaches dating back to the early 1970s including a 1989 proposal for "an *Architecture Neutral Distribution Form* (*ANDF*) for computer programs . . . [that] could be run on any machine").

[3]   All seven of the Asserted Patents are the subject of reexamination proceedings now pending before the Patent Office, and the Patent Office has already granted reexamination based

1 the 1960s and 1970s.[4] The prosecution histories of the Asserted Patents include numerous

2 rejections in view of just some of this prior art, even though the Sun applicants provided

3 surprisingly little of the relevant art to the Patent Office. In response to those rejections, Sun was

4 often required to narrow the scope of its claims before the Patent Office would issue the patents.

5 Yet – as clearly evidenced in this claim construction process – Oracle is now attempting to

6 expand the narrow Sun patent claims to cover Google's use of well-known computer software

7 concepts found in the prior art.

8   The term "Java" is used to refer to both the Java programming language and the so-called

9 "Java Platform." While use of the Java programming language may be widespread, that

10 widespread use is a result of it being openly available and, as a language, free and not subject to

11 any intellectual property protection of any kind. Oracle has conceded in open court that the Java

12 programming language is not at issue in this case. February 9, 2011 Hearing Transcript at 8:16-

13 20 (Dkt. 87). And although Oracle touts the Java "virtual machine" that is an element of the

14 "Java Platform," Oracle refrained in its opening brief from claiming that Java virtual machines

15 are in widespread use in smartphones – the mobile devices that comprise the majority of uses of

16 Android to date.

17   Though irrelevant to claim construction, Oracle continues in its brief a theme that will

18 likely be persistent throughout this case: that Android allegedly and somehow improperly

19 "forks" Java. This misnomer is misleading and incorrect. Android and its original Dalvik virtual

20 machine do not "fork" either Java or the Java virtual machine. Android (with Dalvik) provides

21 an open source platform for mobile devices that is an alternative to mobile versions of the Java

22 Platform, and that allows developers to use the free and open Java programming language (as

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26 on significant new questions of patentability for five of the patents, with initial determinations
    yet to be made for the other two.

27 [4]   *See, e.g., supra* note 2; Ex. H, John Aycock, *A Brief History of Just-In-Time*, 35 ACM
    Computing Survs. 97, 97 (June 2003) ("Software systems have been using 'just-in-time'

28 compilation (JIT) techniques since the 1960s.").

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1 well as other languages) to write applications that can run on the Android platform. Oracle's

2 irrelevant references to "forking" are merely an expression of its preference that it face no

3 competition in mobile platforms. But "forking" is neither a type of infringement, a cognizable

4 tort nor a viable legal theory, and Oracle does not assert in its amended complaint any claim for

5 "forking."

6   Sun's suit against Microsoft, also cited in Oracle's Introduction, is also irrelevant as it

7 presented a fact pattern very different from the facts of this case. Unlike Google, Microsoft was

8 a party to a contract with Sun under which Microsoft had a license to make derivative works of

9 the Java Platform and to use Sun's "Java Compatible" logo as long as those derivative works

10 passed compatibility requirements established by Sun. *Sun Microsystems, Inc. v. Microsoft*

11 *Corp.*, 188 F.3d 1115, 1118 (9th Cir. 1999). Oracle does not accuse Google of violating a

12 license agreement relating to Android; Google does not use the "Java Compatible" logo in

13 connection with Android; Android is not subject to any Sun or Oracle "compatibility" or other

14 requirements; and Oracle has confirmed that Android is not a Java platform by asserting that

15 "Android does not implement the entire Java specification and is accordingly not compliant."

16 *See* Ex. I, Oracle Response to Google Interrogatory No. 9.

17   Finally, Oracle implies in its Introduction that the success of the Java Platform is the

18 result of the asserted patents. Oracle conveniently omits that any success of the Java Platform

19 has been due in large part to the efforts of the open source developer community (including

20 Google), which has supported and contributed to the Java Platform in the belief that Oracle

21 would make the Java Platform a completely open platform. *See, e.g.*, Ex. J, Steve Lohr, *Software*

22 *War Pits Oracle vs. Google*, N.Y. Times, August 30, 2010 ("After Sun made Java open source in

23 2006 to broaden its adoption, its strategy was to let developers and companies freely use the Java

24 technology deployed in data centers. Google was a major participant contributing features and

25 shaping standards for this so-called big Java in the Java Community Process . . . .").

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III.   THE ANDROID PLATFORM

2   The Android platform was developed independently of the Java Platform.[5] As an open

3 source platform, Android is available to any person or entity – from handset manufacturers to

4 end-users who buy those handsets – free of charge, and any user may freely modify the source

5 code to suit his, her or its own purposes. Even systems running modified versions of Android

6 are still permitted to be called "Android" systems as long as they pass a compatibility test suite

7 that Google provides for free. Unlike Sun/Oracle and the Java Platform, Google does not charge

8 any fees to ensure compatibility with Android or for the use of the Android name, mark or logo.

9   Since its release in 2007, the Android operating system has quickly established itself as

10 the most successful operating system in the history of smartphones. By fall 2010, one media

11 outlet ranked Android as the top-selling smartphone platform, reporting sales of 33.3 million

12 smartphones in the fourth quarter. *See* Ex. K, FoxBusiness.com, Google Android, Video Games

13 Dominate Mobile World Congress, http://www.foxbusiness.com/technology/2011/02/21/google-

14 android-video-games-dominate-mobile-world-congress/ (Feb. 21, 2011) (last visited Mar. 31,

15 2011). In February of this year, another reported that 300,000 new Android smartphones were

16 being activated daily. *See* Ex. L, WSJ.com, Mobile World Congress: Google's Android Big in

17 Barcelona, http://online.wsj.com/search (Feb. 17, 2011) (enter "Google Android Barcelona" in

18 "Search for" box; click "Search"; click "Android Big in Barcelona" link) (last visited Mar. 31,

19 2011). It is self-evident that this success is not attributable to the Java Platform, since

20 Sun/Oracle has made available for license for many years a mobile Java Platform that has failed

21 to achieve such success. The advantages and impact of Android were acknowledged by Sun's

22 CEO in 2007 when, in congratulating the launch of Android and pledging support for the

23 Android platform in his blog on Sun's website, he stated:

24   Google . . . just strapped another set of rockets to the [Java] community's
       momentum . . . . Today is an incredible day for the open source community, and
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   [5]   Android includes certain APIs in order to be interoperable with the Java Platform, i.e., so
27 that programs written in the Java programming language using common programming
   techniques will run properly on Android devices. However, the Android source code – e.g., the
28 code for the Dalvik virtual machine, etc. – does not use Oracle's Java source code.

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GOOGLE INC.'S RESPONSIVE CLAIM CONSTRUCTION BRIEF   CIVIL ACTION No. CV 10-03561

a massive endorsement of two of the industry's most prolific free software
communities, Java and Linux.

See Ex. M, Jonathan Schwartz's Blog, *Congratulations Google*, Nov. 5, 2007,

http://blogs.sun.com/jonathan/entry/congratulations_google (last visited Mar. 31, 2011).

IV.   DISPUTED CLAIM TERMS

A.   **"computer-readable medium" and related phrases
('476, '447, '520, '720, '205, and '702 patents)**

Google's Proposed Construction	Oracle's Proposed Construction
any medium that participates in providing instructions to a processor for execution, including but not limited to, optical or magnetic disks, dynamic memory, coaxial cables, copper wire, fiber optics, acoustic or light waves, radio-waves and infra-red data communications	a storage device for use by a computer

In its strained, ten-page argument regarding these claim terms, Oracle asks the Court to

(1) ignore the patents' repeated and consistent express definitions of the terms to be construed;

(2) ignore significant, highly probative intrinsic evidence that corroborates the express

definitions; (3) disregard evidence of Sun's campaign to ensure that its portfolio covered

computer media that included wave transmissions of various types; (4) adopt multiple

inconsistent constructions notwithstanding the parties' agreement that the terms should all be

construed the same; (5) ignore the fact that the relevant term was first added to the '104 patent

only by reissue, years after the original filing date; (6) improperly elevate a desire to uphold the

validity of the patents as the primary guide to construction at the expense of well-settled claim

construction principles; (7) excuse Oracle's failure to take advantage of the available Patent

Office procedures for correcting the defects prior to filing this action; and (8) adopt constructions

that are irreconcilable with the patents as written and would lead to unfair results.

In recognition that this construction dispute could potentially dispose of roughly a quarter

of its 132 asserted claims, Oracle spends over one-third of its brief asking the Court to disregard

clear and controlling Federal Circuit case law and to instead construe these terms narrowly in

order to preserve the validity of those claims. The argument that its patents should not now read

on carrier waves and transmission media cannot be reconciled with Oracle's own exuberant

GOOGLE INC.'S RESPONSIVE CLAIM CONSTRUCTION BRIEF   CIVIL ACTION No. CV 10-03561

1   presentation in its brief of Java's success as an Internet programming platform. Oracle Br. at 1

2   ("Java rose to popularity with the rise of the Internet and the World-Wide Web" where "[a] user

3   wanting to run [an] application can get a copy of the application bytecode through a variety of

4   mechanisms, *including by downloading it from the Internet*"). The objective intrinsic and

5   extrinsic evidence of the patents demonstrates Sun's unambiguous and aggressive efforts to

6   claim software distributed over networks in the manner that Sun and Oracle have used to

7   distribute Java programs.

8   The patents at issue contain the most compelling type of evidence relevant to claim

9   construction: express definitions set forth in the specifications of the patents. In *Phillips*, the

10 Federal Circuit reaffirmed the controlling precedent that accords such express definitions very

11 heavy weight and rejected Oracle's approach of preserving validity at the cost of disregarding

12 both the express definitions and precedent. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1327 (Fed.

13 Cir. 2005) (en banc) ("[W]e have certainly not endorsed a regime in which validity analysis is a

14 regular component of claim construction."). Construing a term to preserve validity should occur

15 only when, after conducting a proper claim construction analysis, the term is still ambiguous. *Id.*

16 (quoting *Generation II Orthotics, Inc. v. Medical Tech., Inc.*, 263 F.3d 1356, 1365 (Fed. Cir.

17 2001)).

18   Oracle does not assert that there is any ambiguity in the explicit definitions provided in

19 the Asserted Patents, nor could it. There is no indication in the intrinsic record that Sun sought

20 to claim anything less than the full scope of the express definitions it repeatedly included in the

21 patents. Because there is no ambiguity in the claim terms or the definitions, normal tenets of

22 claim construction apply without regard to the possible effect on the validity of the claims. *See*

23 *Sinorgchem Co. v. ITC*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) ("the patentee must be bound by

24 [an] express definition."). Oracle cannot now jettison those express definitions, which it and Sun

25 have relied on to forestall competition, now that it realizes too late that Sun drafted its patent

26 claims too aggressively.

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GOOGLE INC.'S RESPONSIVE CLAIM CONSTRUCTION BRIEF   CIVIL ACTION No. CV 10-03561

1.   The express definitions in the '476, '447, '520, and '720 patents

As explained in Google's Opening Brief, the '476 and '447 patents state that "[t]he term 'computer-readable medium' as used herein refers to *any medium that participates in providing instructions*" and continue on with the definition to include a broad set of technologies ***explicitly including*** carrier waves in the form of acoustic and light waves. '447 patent at 5:4-16 (emphasis added); *see also* '476 patent at 5:4-16. In another clear example, the '520 patent expressly defines "computer-readable media" to include "a carrier wave received from the Internet." '520 patent at 4:48-56.[6] And the '720 patent, through material incorporated by reference, expressly defines "computer-readable media" to include "a carrier wave, optical signal or digital signal from a network, such as the Internet." Ex. A to Google Br., '240 patent at 13:28-32. These definitions unambiguously define the term "computer-readable medium" to include the types of media enumerated in Google's proposed construction.

The use of the additional term "storage" in the '720 patent's recitation of "computer-readable storage medium" does not dictate a contrary result. First, because Oracle and Google agree that all of these similar terms should be construed the same,[7] the express definition of the term in four of the Asserted Patents should prevail. Second, the disclosure of the '205 patent establishes that at the time these patents were filed, Sun's use of "computer-readable medium" – as opposed to "computer-readable storage medium" – had nothing to do with whether the claims were directed to carrier waves; Sun used the two phrases interchangeably. *See* '205 patent at 4:48-54 ("a data signal embodied in a carrier wave . . . may be the computer readable *storage medium*" (emphasis added)).

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[6]   Oracle objects that the '520 specification "does not disclose coaxial cables, copper wire, fiber optics, or other transmission media." Oracle Br. at 21. Surely, Oracle will admit that a "carrier wave received from the Internet" must arrive via ***some*** transmission medium. Further, the transmission media listed in Google's proposed construction – qualified by the phrase "including but not limited to" – cover commonly used transmission media, and are merely examples.

[7]   Google recognizes that to the extent the Court determines that any of the several "computer-readable medium" terms at issue may require a construction different from the others, the Court is not bound by the parties' agreement and may construe the terms differently.

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1   Oracle argues, without any supporting legal authority, that the Court should (1) assume

2   that the inventors intended to claim only statutory subject matter, i.e., subject matter that is

3   eligible for patent protection, and then (2) construe the claims to "comport with the [assumed]

4   intent of the inventor[s]."[8] Oracle Br. at 24. If Oracle's reasoning were to prevail, patents

5   would be effectively immunized from ever being challenged. Not surprisingly, the Federal

6   Circuit has rejected this reasoning. In *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371 (Fed.

7   Cir. 2004), the patent claimed a method for baking cookies requiring "heating the resulting

8   batter-coated dough to a temperature in the range of about 400 [degrees] F. to 850 [degrees] F."

9   *Id.* at 1373 (alterations in original). The court found that it was required to construe the claims to

10   require a temperature that would cause the cookie dough to combust (rather than bake), even

11   though such a construction could be considered impractical. *Id.* at 1374. As the court stated,

12   "we construe the claim as written not as the patentees wish they had written it."[9] *Id.; see also*

13   *Applera Corp.-Applied Biosystems Group v. Illumina, Inc.*, No. 07-cv-02845-WHA, 2008 U.S.

14   Dist. LEXIS 16712 at *15 (N.D. Cal. Feb. 21, 2008) (Alsup, J.) ("[C]ourts may not redraft

15   claims, whether to make them operable or to sustain their validity.").

16   The cases on which Oracle relies do not support its argument. In *Trading Techs.*, the

17   Federal Circuit approved of a construction that included two alterations to a patentee's express

18   definition, but not under the theory of preserving validity. *See Trading Techs. Int'l, Inc. v.*

19   *eSpeed, Inc.*, 595 F.3d 1340, 1353-55 (Fed. Cir. 2010). Instead, the court "relie[d] heavily on the

20   specification" to support the alteration and, in doing so, "risk[ed] reading improperly a preferred

21   embodiment into the claim." *Id.* at 1353. The court in *Trading Techs.* relied on a significant

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23   [8] In support of its argument, Oracle tenders no competent evidence of what any of the
     multiple inventors of the relevant patents "intended" at the time or even what they might say
24   today about what they believe they intended in the mid-1990s regarding the meaning of any of
     the relevant terms.

25   [9] Oracle had available to it the option of seeking reissue of each of the patents prior to
26   filing suit, to correct the over-claiming and avoid the invalidity consequences based on this (or
     other) defects in the patents. For whatever reason, Oracle chose not to do so and apparently
27   chose to take its chances on convincing the Court to allow it to bypass the available Patent Office
     procedures and to improperly correct the defects in the patents through claim construction or
28   otherwise.

GOOGLE INC.'S RESPONSIVE CLAIM CONSTRUCTION BRIEF   CIVIL ACTION No. CV 10-03561

1   number of clear statements in the intrinsic record before adopting the alterations. *Id.* at 1353-54.

2   Oracle cannot point to any comparable statements in the intrinsic record that would support a

3   construction of the term "computer-readable medium" that excludes any of the types of media

4   included in the patentees' definitions. The second case cited by Oracle, *Ecolab*, merely stands

5   for the proposition that a term with an express definition that is plainly ***ambiguous*** – which is not

6   the case here – may be construed to preserve its validity.   *Ecolab, Inc. v. FMC Corp.*, 569 F.3d

7   1335, 1344-45 (Fed. Cir. 2009). *Ecolab* is therefore consistent with *Phillips*.

8   **2.   The evidence in the '104, '205, and '702 patents**

9   Oracle asks the Court to override the express definition of "computer readable media" in

10   the '476, '447, '520, and '720 patents with a vague construction that is not supported by the

11   remaining three patents and that excludes embodiments that are disclosed in the '205 and '702

12   patents. For example, the '702 patent specification describes an embodiment of "code in the

13   form of a carrier wave." '702 patent at 7:10-14; *see also*, *id.* at 6:48-52 (electrical,

14   electromagnetic or optical signals); *id.* at 6:60-67 (carrier waves). The '205 patent similarly

15   discloses that "a data signal embodied in a carrier wave . . . may be the computer readable

16   storage medium." '205 patent at 4:48-54. In the context of the '205 and '702 patents, Oracle's

17   construction would be improper because it excludes one of the preferred embodiments. *MBO*

18   *Labs, Inc. v. Becton, Dickinson & Co.,* 474 F.3d 1323, 1333 (Fed. Cir. 2007) ("claim

19   interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever,

20   correct").

21   The '104 patent specification contains no disclosure of or relating to "computer-readable

22   medium." It therefore cannot override the express definition and preferred embodiments of the

23   other six patents. Oracle attempts to focus on the earlier 1992 filing date of the '685 patent

24   (which was later reissued as the '104 patent) to save it from the overbroad definitions added to

25   the patents years later. *See* Oracle Br. at 18. Oracle concedes, however, that the "computer-

26   readable medium" terms of the '104 patent were not added until 1996.

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1   As a result of their late addition to the '104 patent, the terms are not entitled to a 1992

2   priority date and should be construed consistent with the use of the term in 1996.[10] Google Br.

3   at 8-9. In the late 1990s, "computer readable medium" terms were not *technical* terms of art, but

4   rather recognized *legal* terms used specifically in the context of patents and understood to

5   include wireless transmissions. *See, e.g.*, Kuester et al., *Article: A New Frontier in Patents:*

6   *Patent Claims to Propagated Signals*, 17 J. Marshall J. Computer & Info. L. 75 at 75 (Fall 1998)

7   ("If you thought '*Beauregard*' claims were a slippery slope to an uncertain end, you were right!

8   The new frontier after *In re Beauregard* is the 'propagated signal' claim - a claim directed to a

9   manufactured transient phenomenon, such as an electrical, optical, or acoustical signal, that

10   could further revolutionize the way communications and software companies protect their

11   intellectual property."). And the wealth of extrinsic evidence, in the form of hundreds of

12   contemporaneous Sun patents,[11] confirms that Sun and its patent attorneys frequently intended

13   its computer-readable medium claims to encompass wireless transmissions, consistent with this

14   recognized meaning. Google Br. at 9-10.

15   For the foregoing reasons, the Court should adopt Google's construction for all of the

16   "computer readable medium" terms. Google's construction is consistent with the express

17   definitions in four of the patents, the preferred embodiments in two others, and the extrinsic

18   evidence as to all seven. That evidence cumulatively establishes Sun's intent to claim all types

19   of computer-readable media, including carrier waves.

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24   [10]   As early as 1989, James Gosling (the inventor of the '104 patent) described the process of

25   transparently accessing program files over a network as "natural," for example by using "Sun's
     Network File System (NFS)." *See, e.g.*, Ex. N, J. Gosling et al., *The NeWS Book* at 19 (Springer-

26   Verlag 1989); Ex. O, J. Gosling, "Re: Eolas acquires milestone internet software patent" (Aug.
     21, 1995) (identifying systems dating back to the early 1970's that could download executable

27   code over a network).

28   [11]   *See* Google Br. at 9-10 & Ex. C.

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1   **B.   "reduced class file" ('702 patent)**

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Google's Proposed Construction	Oracle's Proposed Construction
a class file containing a subset of the data and instructions contained in a corresponding original class file	Oracle's position is that no construction is necessary, but if the Court agrees that Construction is necessary, the parties are essentially in agreement. A "reduced class file" contains a subset of the code and data contained in a class file

6   Oracle asks the Court to read both the word "class" and the word "file" out of the claim

7   term "reduced class file" in order to broaden the scope of the claims in which the term appears.

8   This is foreclosed by Federal Circuit precedent requiring each claim term to be given meaning.

9   *See Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F. 3d 1374, 1381 (Fed. Cir. 2006)

10 (rejecting a construction of "adjustable" that essentially rendered that claim term meaningless);

11 *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 249 F.3d 1314, 1324 (Fed. Cir. 2001) (a proper

12 construction cannot broaden a claim by "'reading out' the limitations contained in the claim

13 language"), *vacated and remanded on other grounds*, 535 U.S. 1109 (2002). Oracle's proposed

14 construction also does not provide any meaningful limitation of the term "reduced class file," is

15 inconsistent with the patent specification, and serves only to obfuscate the claim limitations.

16   Oracle's construction of "reduced class file" is vague – and intentionally so, to support

17 Oracle's infringement position. In order to prove infringement, Oracle must convince the Court

18 to construe "reduced class file" broadly enough so that it improperly encompasses the same file –

19 or a portion of the same file – that also satisfies the "multi-class file" limitation in each of the

20 asserted claims of the '702 patent. Oracle's construction is also too vague to be helpful to a jury,

21 and is unreasonably broad in view of the surrounding claim language and patent specification.

22 Google's proposed construction, in contrast, provides clear and meaningful limitations that are

23 mandated by the claim language and consistent with the specification.

24   Oracle's argument boils down to this: a "reduced class file" cannot be a class file

25 because it does not conform to the Java specification for a "class file." Oracle argues that the

26 '702 patent specification limits the term "class file" to a "self-contained" representation of a

27 class, whereas the patent discloses an embodiment of a "reduced class file" that is not "self-

28 contained." Oracle Br. at 15.

<center>11</center>

1   Oracle's position is unsupportable. The '702 patent specification explicitly discloses that

2   a class file may include direct references to external data. For example, the "class file" format

3   described in the '702 patent specification can include index values that reference line numbers in

4   a separate source code file that was used to generate the class file. *See, e.g.*, '702 patent at

5   29:52-57. Oracle rests this argument only on a short, ambiguous statement in the "Background

6   of the Invention" section of the patent ('702 patent 4:3-4), rather than any clear distinction in the

7   claim language or a statement made in reference to the "present invention." That background

8   statement – which simply identifies a "class file" as "self-contained" – does not support Oracle's

9   construction. Any file may be considered "self-contained," as long as it meets a particular file

10 format. And at best, the background statement cited by Oracle merely describes some number of

11 prior art "class files," does not create a mandatory requirement for all such files, and is not even

12 addressed to the claimed invention.

13   Similarly, Oracle argues that a "reduced class file" cannot be a "class file" because the

14 "reduced class file" also contains non-standard elements. Again, however, the '702 patent

15 specification explicitly allows additions to the "class file" specification. *Compare* Oracle Br. at

16 15, lines 23-28 *with* '702 patent, 25:66-67, 25:52-55. And, even if certain class files in prior art

17 systems may have been "self-contained" per Oracle's definition, the '702 patent specification did

18 not view "reduced class files" from Oracle's litigation-induced, strained perspective. *See Minn.*

19 *Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1566 (Fed. Cir.

20 1992) (holding that it was "entirely proper" for the district court to use the specification –

21 including the stated objective of the patent – to construe a disputed claim term).

22   Equally troubling is the indefiniteness of the construction offered by Oracle. Oracle

23 proposes that "[a] 'reduced class file' contains a subset of the code and data contained in a class

24 file," but at the same time argues that a "reduced class file" is not a "class file" but "can be very

25 similar to class files." Oracle Br. at 15. Oracle's proposed construction provides little if any

26 guidance to the jury, and would encompass:

27   1) a file containing only the data portion of a "class file" that contains code and data;

28

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1   2)   a single file with code and data previously aggregated from multiple individual "class

2   files"; and

3   3)   a data structure in memory that is not even a file.

4   Yet the specification does not provide support for any of those possibilities. Moreover, the

5   second possibility enumerated above would allow the "reduced class file" term to subsume

6   another claim term, "multi-class file," which is distinguished from "reduced class file" in the

7   asserted claims. *See, e.g.*, *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d

8   1111, 1119-20 (Fed. Cir. 2004) (courts may infer that the use of different terms in a claim

9   "reflect a differentiation in the meaning of those terms").

10   In contrast to Oracle's proposed construction, Google's construction is a clear,

11 reasonably-bounded definition that gives meaning to all of the words based on the disclosure of

12 the '702 patent. Google's construction requires that a "reduced class file" be a reduced (or

13 smaller) "class file" created by removing duplicated data from an original, corresponding "class

14 file." *See, e.g.*, '702 patent at 5:9–17 ("reduced class files" are created by removing "all

15 occurrences of the [duplicated] constant . . . from the respective constant pools of the individual

16 class files"); *id.* at fig. 4 (discussing the removal of duplicate constants "from individual constant

17 tables for each class"); *id.* at fig. 5 (illustrating individual classes, each containing a "reduced

18 constant pool table").

19 **C.   "symbolic [data / field] reference" ('104 patent)**

20

Google's Proposed Construction	Oracle's Proposed Construction
a dynamic reference to data that is string- or character-based	No construction necessary. The ordinary meaning is "a reference by name"

23   Oracle's proposed construction – "a reference by name" – is neither sufficiently clear nor

24 helpful to a jury, and reflects Oracle's attempt to bolster its infringement allegations by

25 expanding the scope of the '104 patent claims. Adoption of Google's proposed construction

26 would be dispositive of all 31 asserted claims of the '104 patent because the Accused

27 Instrumentalities do not include "instructions containing one or more symbolic references."

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1   The word "name," as used in Oracle's proposed construction, is used only three times in

2   the '104 patent specification. '104 patent at 1:51-52 ("[I]f the point data object had a new field

3   added at the beginning called *name*, which contains the *name* of the point . . . ." (emphasis

4   added)); *id.* at 1:65-67 ("Thus, an instruction that accesses or fetches y, such as the Load

5   instruction 14′ illustrated in FIG. 1, references the variable y by the *symbolic name* 'y'."

6   (emphasis added)). Reliance on these vague uses of the term "name" in formulating the

7   construction will not aid the decision-maker while considering non-infringement and invalidity

8   issues. If anything, the use of the term "name" in these contexts indicates that Google's more

9   concise construction is preferable – because it affirmatively states that the "named" references

10   are string-based or character-based, as opposed to number-based.

11   Oracle concedes that a symbolic reference cannot be a number. *See* Oracle Br. at 13 ("a

12   'symbolic address' is a 'memory address that can be referred to in a program by name *rather*

13   *than by number* . . . .'" (emphasis added)). This admission supports Google's proposed

14   construction, which would not include a number-based reference. *See* Google Br. at 14-16

15   (highlighting specification's repeated distinctions between "symbolic" references and "numeric"

16   or number-based references).

17   Oracle challenges Google's more precise construction, but fails to explain what a

18   "reference by name" might be other than a string-based or character-based reference. Oracle

19   contends only that Google's construction presents a "significant problem" because the word

20   "string" does not appear in the intrinsic or extrinsic evidence and because the word "character" is

21   not mentioned "in a way that is germane to 'symbolic reference.'" Oracle Br. at 13.

22   Oracle's argument misses the mark in at least two critical ways. First, the Federal Circuit

23   recently confirmed that there is no legal requirement for words used in claim construction to be

24   found, *ipsis verbis*, in the intrinsic record:

25   Sandoz further argues that the district court erred by using the word "matrix" in
        its definition of "pharmaceutically acceptable polymer," quoted above, pointing
26   out that this word does not appear in the claims or specification. *However, claim*
        construction often calls upon words other than those of the patent, lest the claim
27   *simply define itself. "Claim construction" is for the purpose of explaining and*
        defining terms in the claims, and usually requires use of words other than the
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words that are being defined. See Multiform Desiccants, Inc. v. Medzam, Ltd.,
133 F.3d 1473, 1477 (Fed. Cir. 1998) (claims are construed as an aid to the
decision-maker, by restating the claims in non-technical terms).

3 *See Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1360 (Fed. Cir. 2008) (emphasis added).

4   Second, as one of the largest software companies in the world, Oracle is certainly familiar

5 with what the words "string" and "character" mean as they relate to software. The Microsoft

6 Press Dictionary cited in Oracle's Opening Brief defines a "string" as a "data structure composed

7 of a sequence of characters, usually representing human-readable text." *See* Ex. P, Microsoft

8 Press Computer Dictionary 374 (2d ed. 1994). This definition, which uses both "string" and

9 "character," is consistent with the manner in which "symbolic reference" is used throughout the

10 specification, and confirms that Google's more precise construction, which does not encompass

11 number-based references, is correct. *See, e.g.*, '104 patent at Figs. 1A and 1B (showing slot

12 numbers 1 and 2 as "numeric" references, and single character strings "x" and "y" as "symbolic"

13 references).

14   Finally, Oracle takes issue with the inclusion of the word "dynamic" in Google's

15 proposed construction.[12] Oracle Br. at 13.   Oracle admits that the specification defines

16 "dynamic" as "symbolic," but argues that the converse is not true. *Id.* Oracle's position is

17 contrary to well-settled Federal Circuit precedent. *See Abbott Labs. v. Novopharm Ltd.*, 323 F.3d

18 1324, 1327, 1330 (Fed. Cir. 2003) (recognizing use of "i.e." in specification as definitional).

19 Tellingly, Oracle fails to provide any examples of a symbolic reference that would not be

20 "dynamic," i.e., a reference that is subject to change because it has not been resolved to a

21 numeric value, as opposed to being a fixed or "static" reference. *See, e.g.*, Ex. P, Microsoft Press

22 Computer Dictionary 137 (2d ed. 1994) ("dynamic binding" is "[b]inding (converting symbolic

23 addresses in the program to storage-related addresses) that occurs during program execution").

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[12]   Oracle's position is inconsistent, to say the least. Oracle first objects to Google's
27 construction because it uses words (*string* and *character*) that are not found in the specification.
Oracle then objects because a word that is found in the specification ("dynamic") is allegedly
28 unclear and will "require the Court to 'construe the construction.'" Oracle Br. at 13.

<div align="center">15</div>

1   Google's construction of "symbolic [data / field] reference" should be adopted because

2   (1) it properly accounts for the repeated distinction made in the '104 patent between references

3   that are symbolic, i.e., string-based or character-based, and references that are numeric, i.e.,

4   number-based; and (2) it is consistent with definitional language used in the specification,

5   namely, "dynamic, i.e., symbolic." *See* Google Br. at 14-16. Google's concise and

6   unambiguous construction will better clarify the issues before the Court and the jury. *See*

7   *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998) (claims are

8   construed as an aid to the decision-maker).

9   **D.   "intermediate form (object) code" ('104 patent)**

10

Google's Proposed Construction	Oracle's Proposed Construction
code that is generated by compiling source code and is independent of any computer instruction set	executable code that is generated by compiling source code and is independent of any computer instruction set

13   Oracle's construction of "intermediate form (object) code" would improperly import into

14   the claims a limitation from the specification – "executable" – that does not appear in the claims.

15   As Google explained at pages 16-17 of its opening brief, the modifier "executable" was

16   intentionally dropped from the claims during the broadening reissue. This act shows the

17   patentee's express intent to claim "intermediate form [object] code" that is not necessarily

18   executable.[13] *See Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 992 (Fed. Cir.

19   1999) (holding that "unmodified term 'coupled' generically describes a connection, and does not

20   require a mechanical or physical coupling").

21   Oracle ignores the prosecution history and instead argues that "every claim . . .

22   consistently refers to [intermediate form (object) code] as executable." Oracle Br. at 7-8.

23   Oracle's argument is puzzling because none of the claims cited by Oracle refer to the

24   intermediate form code as being executable. The claims refer to executing "instructions" (claims

25   11, 22) or executing a "program" (claims 12, 17, 19-21, 27-35, 39-41) – but not executing the

26

27

28   [13]   Google agrees that the claimed "intermediate form (object) code" *can* be executable, but
nothing in the intrinsic or extrinsic evidence limits this term to code that *must* be executable.

16

1   intermediate form code. Oracle also cites claim 23 as support for its position, but the word

2   "executable" does not appear in claim 23.

3   Oracle's reliance on the specification to support its proposed construction is equally

4   unavailing. In addition to reading an unsupported limitation into the claims, Oracle would limit

5   the term to code that is not an "intermediate representation." Oracle Br. at 8-9. First, Oracle's

6   apparent position – that "intermediate form (object) code" cannot be an "intermediate

7   representation" – is not even reflected in Oracle's proposed construction. Second, whether an

8   "intermediate representation" is executable has no bearing on whether "intermediate form

9   (object) code" should be limited to code that is executable, and Oracle provides no legal basis to

10 find otherwise. Third, Oracle's conclusion that an "intermediate representation" is not

11 executable while the "intermediate form (object) code" is necessarily executable is unsupported

12 attorney argument. The '104 patent specification never makes such a distinction, and the prior

13 art is clear that there may be no difference between an "intermediate representation" and the

14 subsequently generated code (e.g., "intermediate form (object) code") that is interpreted by an

15 interpreter:

16   [A] compiler will first translate into an internal form which is easier to handle
        mechanically. In most internal forms, operators appear essentially in the order in
17   which they are to be executed; this is a big help for *subsequent* analysis and *code
        generation* [e.g., block 50 in Figure 4 of the '104 patent]. Actually these internal
18   forms could also be used for interpreting. That is, we could write a program
        which would execute the source program as it is represented in its internal form.
19

20 *See* Ex. Q, Gries, *Compiler Construction for Digital Computers* at 245 (John Wiley & Sons, Inc.

21 1971) at 245.

22   Oracle's citation to column 4 of the '104 patent specification similarly fails to show that

23 "intermediate form (object) code" is limited to executable code; in fact, the specification actually

24 contradicts Oracle's attempt to read this term narrowly by suggesting that the range of

25 intermediate forms is broad. '104 patent at 4:29-32 ("a variety of well known . . . intermediate

26 forms may also be used to practice the present invention.").

27   Rather than provide clarity to the disputed phrase, Oracle's construction would further

28 obfuscate the issues of invalidity and non-infringement because it is unclear what Oracle's

17

1   additional limitation "executable" means in the context of the '104 patent. For example, the

2   patent reflects that a compiled programming language results in "executable code for a specific

3   computer architecture." '104 patent 1:25-28. In such a system, the code is "executed" directly

4   by a computer processor. In contrast, a program in intermediate form – according to the

5   specification – is "executable . . . by a virtual machine." '104 patent at 1:67-2:3. Thus, the use

6   of the term "executable" in the '104 patent is subject to multiple possible interpretations, and

7   provides no further clarity with respect to the term "intermediate form (object) code."

8   Oracle also mischaracterizes Google's positions with respect to this term in at least two

9   respects. First, Oracle states that the parties do not "dispute that 'intermediate form code' is *the*

10 *output of a compiler*." Oracle Br. at 7 (emphasis added). Google does dispute this statement.

11 Both parties' constructions indicate that intermediate form code "is generated by compiling

12 source code," but they do not indicate that intermediate form code "is generated *as output of a*

13 *compiler* by compiling source code," as Oracle appears to argue. The '104 patent never uses the

14 word "output" in the context of a compiler. Rather, the patent explicitly discloses a "hybrid

15 compiler-interpreter" (*see* '104 patent at 2:35-38), which may not produce output code because

16 an interpreter may immediately interpret the compiled intermediate form code. Oracle should

17 not be permitted to read additional (implicit) limitations into the proposed constructions,

18 especially by mischaracterizing Google's position.

19   Second, Oracle states that the parties do not "dispute that 'intermediate form code' . . .

20 *need not be tied* to any particular computer architecture or instruction set" (Oracle Br. at 7

21 (emphasis added)) – suggesting that the code *could* be tied to a particular instruction set. This is

22 also incorrect. Both parties' proposed constructions affirmatively state that the intermediate

23 form code is "independent of any computer instruction set" – i.e., that it is explicitly *not* tied to

24 any instruction set. Oracle should not be permitted to backtrack now and broaden the scope of

25 its proposed construction. If these statements (with which Google disagrees) represent Oracle's

26 actual position, Oracle should have proposed a construction that made its "understanding"

27 explicit and readily apparent.

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E.   "resolve" / "resolving" ('104 patent)

Google's Proposed Construction	Oracle's Proposed Construction
replace/replacing at least for the life of the process	No construction necessary. "Resolving" a symbolic reference is determining its corresponding numerical reference.

The dispute over this term reflects Oracle's attempt to bolster its infringement claims by improperly extending the scope of the claims in direct contradiction to the intrinsic evidence.[14] The construction of "resolve" / "resolving" may be dispositive of all 31 asserted claims on issues of infringement as well as the adequacy of the specification of the '104 patent. Google's proposed construction is fully supported by the intrinsic evidence, and in particular, based on the prior art of record. *See* Google Br. at 17-21 (parenthetical summary of arguments).

As a threshold matter, Oracle fails to recognize that the patentee used the terms "resolve" and "resolving" in a particular manner and expressly distinguished the *particular type* of "resolving" performed in the alleged invention from that performed by the prior art of record. *Id.* Oddly, Oracle now relies on the prior art that is disparaged in the '104 patent to support its proffered construction. For example, Oracle relies on the specification's description of the prior art interpreters in which "[e]ach of the symbolic references is resolved during execution *each time* the instruction . . . is interpreted." Oracle Br. at 11. Because this prior art – and the other art cited by Oracle in support of its construction – is explicitly disparaged in the '104 patent specification (*see* Google Br. at 19-20), Oracle's reliance on it to support a "plain meaning" construction is improper. *See Edwards Lifesciences LLC v. Cook, Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009) ("Although the construction of a claimed term is usually controlled by its ordinary meaning, we will adopt an alternative meaning 'if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment . . . .'").

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[14]   Oracle states that Google chose this term for construction. To be accurate, this term was on Oracle's "high priority" list, but was not originally chosen to be among the six *Markman* terms when each party selected three terms. To narrow the disputes, Google agreed to Oracle's construction of another previously-disputed term not currently before the Court, and the parties then agreed to include "resolve" / "resolving" to be among the six terms chosen for *Markman*.

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1   Similarly, Oracle's complaint that Google's construction adds "superfluous language"

2   (Oracle Br. at 11) is both incorrect and hypocritical, as it is Oracle's proposed construction that

3   renders claim language superfluous. For example, Oracle's construction indicates that

4   "resolving" means "determining [a symbolic reference's] corresponding numerical reference."

5   Oracle Br. at 9. However, many of the asserted claims recite "resolve" or "resolving" along with

6   the language "determining a numerical reference." '104 patent at claims 12, 13, 18-21, and 23.

7   Thus, Oracle's construction would render the "determining a numerical reference" language in

8   these claims superfluous. Google's proposed construction, in contrast, provides clarity to the

9   meaning of this term and does not include language or concepts already covered by other claim

10 terms.

11   Finally, Oracle's claim differentiation argument is directly refuted by the intrinsic

12 evidence. Independent claims 1 and 6 of the original '685 patent do not distinguish between

13 "resolving" and "replacing"; they recite both concepts as two sides of the same coin. *See* '685

14 patent at claims 1, 6; *see* Google Br. at 18-19.

15 **F.**   **"the play executing step" ('520 patent)**

16

Google's Proposed Construction	Oracle's Proposed Construction
Indefinite – cannot be construed	"The play executing step" in claims 3 and 4 is a reference to the "simulating execution" step in claim 1

19   Oracle admits that because of a claim drafting error, claims 3 and 4 of the '520 patent

20 lack antecedent basis. Oracle Br. at 6 ("When the amendment to claim 1 was made, no

21 corresponding amendment to claims 3, 4, or 5 was made . . . ."). Oracle asks the Court to

22 construe "the play executing step" phrase in the '520 patent for the sole – and improper –

23 purpose of correcting, at the claim construction stage, an admitted claim drafting error that

24 affects only 2 out of the 132 claims asserted in this case and renders both invalid for

25 indefiniteness. Oracle invites legal error by asking the Court to rewrite the affected claims in

26 contradiction to the intrinsic evidence that Oracle does not dispute.

27   Oracle admits that in order to overcome "invalidity upon departure from the protocol of

28 'antecedent basis,'" binding precedent requires that the intended meaning of the claim must be

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1   reasonably understood by persons of ordinary skill in the art in light of the intrinsic evidence.

2   Oracle Br. at 6 (citing *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370-71

3   (Fed. Cir. 2006), *cert. denied*, 129 S. Ct. 1662 (2009)). This admission is fatal to Oracle's

4   proposed correction.

5   Oracle has not presented *any* evidence that one of ordinary skill in the art would have

6   understood "play executing" to be coextensive with "simulating execution," as Oracle's

7   proposed correction suggests. Oracle relies on the Examiner's statements made during the

8   prosecution history to satisfy this burden. *See* Oracle Br. at 5, ll. 21-28. The Examiner,

9   however, did not consider these terms to be synonymous. The Examiner required Oracle to

10 amend claim 1 by changing "play executing" to "simulating execution of" in order to overcome a

11 prior art rejection, and the Examiner stated that this amendment was a "[n]arrowing [of] the

12 claims to make clear the functions of these elements." Google Br. at 23.

13   Oracle argues that only a different part of the amendment, i.e., the addition of the phrase

14 "without executing the byte codes," affected the scope of the claim. *Id.* at 6 (discussing "[t]he

15 point of the amendment"). This position is neither factually nor legally correct. If the

16 amendment from "play executing" to "simulating execution of" did not affect the scope of the

17 claim, the Examiner would not have required that amendment to overcome the prior art rejection.

18 The cases cited by Oracle also do not support its position, as neither case involved a term that

19 was specifically amended to overcome the prior art. *See Kathrein-Werke KG v. Radiacion y*

20 *Mircornadas S.A.*, No. 07-C-2921, 2010 U.S. Dist LEXIS 50468, at *13 (N.D. Ill. May 17, 2010)

21 (court specifically noting that, unlike here, "the prosecution history . . . does not indicate that [the

22 patentee] sought to distinguish 'stripline elements' from the stripline sections or stripline

23 segments in contrasting the claims from prior art."); *Energizer*, 435 F.3d at 1370-71 (court not

24 mentioning any amendments to the claims).

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V.   **CONCLUSION**

2   In view of the above and for the reasons stated in Google's opening claim construction

3 brief, Google respectfully asks the Court to enter an order adopting Google's proposed

4 constructions for each of the disputed terms discussed above.

5

6 DATED: March 31, 2011   **KING & SPALDING LLP**

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                           By: /s/ Scott T. Weingaertner

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9   SCOTT T. WEINGAERTNER (*Pro Hac Vice*)
ROBERT F. PERRY
BRUCE W. BABER *(Pro Hac Vice)*

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11   **ATTORNEYS FOR DEFENDANT
GOOGLE INC.**

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