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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. 3:10-cv-03561 WHA  
  
**GOOGLE'S MOTION IN LIMINE TO  
EXCLUDE EVIDENCE REGARDING  
COMPATIBILITY TESTING SUITE**  
  
Dept.: Courtroom 8, 19<sup>th</sup> Floor  
Judge: Hon. William Alsup

1 **I. MOTION AND RELIEF REQUESTED**

2 Under Federal Rules of Evidence 402, 403, and 702, defendant Google Inc. (“Google”)  
3 hereby moves the Court for an order excluding *in limine* testimony by 1) Google employees  
4 Patrick Brady and Daniel Morrill concerning the use and purpose of the Android Compatibility  
5 Test Suite (“CTS”) as well as testimony by 2) Oracle’s patent infringement expert, Dr. John  
6 Mitchell, that relies upon the CTS to establish infringement of the ’104 patent.

7 As an initial matter, the CTS has no relationship to the ’520 patent. (Ex. A, U.S. Patent  
8 No. 6,061,520 at col. 9, ll. 53.)<sup>1</sup> The ’520 patent relates to a class preloader utilized by an  
9 application developer and Oracle accused the Android Software Development Kit of infringing.  
10 It is undisputed that the CTS includes no tests directed at the Android Software Development Kit  
11 and is completely irrelevant to any question of infringement of the ’520 patent. Accordingly, this  
12 motion focuses on the Dalvik virtual machine, which is accused of infringing claims of the ’104  
13 patent.

14 **II. DISCUSSION**

15 The Android Compatibility Test Suite (“CTS”) is a software application that runs on a  
16 desktop computer and can run various tests on an Android-based device that is plugged into the  
17 computer via a USB cable. (TX 3347.) Third party manufacturers typically modify the Android  
18 source code before installing it on their devices (TX 2802 at 1), and the CTS tests are intended to  
19 check for the presence and correct behavior of various components in the Android software, but  
20 can not evaluate how those components actually function. (Ex. B, Brady 30(b)(6) Depo. Tr.  
21 90:12–25.) In other words, the CTS tests compatibility by comparing the expected *output* with  
22 the actual *output* of the handset being tested. The CTS does not examine the actual *source code*  
23 used to build software that resides on the handset.

24 Dr. Mitchell’s opening expert report on patent infringement includes opinions that the  
25 CTS provides evidence of infringement by third party devices. (Ex. C, Mitchell Report, ¶ 188)  
26 Oracle has elicited testimony at deposition and may present fact or expert testimony at trial  
27 regarding the Android Compatibility Test Suite (“CTS”) in an attempt to mislead the jury into

28 <sup>1</sup> Exhibits are attached to and supported by the attached declaration of Truman Fenton.

1 believing that if a third-party device successfully passes the CTS test, it implies that the device  
2 contains the specific portions of Android source code accused of infringing the '104 patent.

3 *First*, it is undisputed that the CTS is incapable of testing for how a device's virtual  
4 machine actually processes symbolic references in Dalvik executable files, which will be the  
5 focus of the trial with respect to the alleged infringement of the '104 patent. Because of this, the  
6 CTS is not relevant to the question of whether a virtual machine on a device infringes the asserted  
7 claims of the '104 patent. The infringement analysis must focus on the specific elements of the  
8 asserted claims, which will turn on *internal implementation details* of the accused Dalvik virtual  
9 machine. Those implementation details not visible to the "black box" testing harness of the CTS.

10 *Second*, Oracle's own infringement expert, Dr. Mitchell, *does not even contend* that the  
11 CTS can shed light on the infringement analysis. If the CTS were capable of doing so, we would  
12 have expected to see discussion of how the CTS could do so in his opening expert report on  
13 infringement. Dr. Mitchell examined the source code for the CTS software and understands how  
14 the CTS operates. (Ex. D, Mitchell Dep. at 61:1-2.) In his opening report on patent  
15 infringement, Dr. Mitchell relied on the CTS to confirm the *existence* of certain APIs he claimed  
16 to infringe certain claims of the '476 and '447 patents. (Ex. E, Appendix A to Mitchell Report,  
17 § 2.F (re '447 and '476 patents).) Those two patents are, of course, no longer in the case. Dr.  
18 Mitchell never suggested that the CTS could confirm that an accused device infringes the '104  
19 patent or would in any way be relevant to the infringement analysis of the '104 patent.

20 *Second*, Oracle does not contend that the CTS could or does test for the performance of  
21 the symbolic resolution process claimed in the '104 patent. None of the fact or expert witnesses  
22 in the case have testified that this is possible. The CTS is an "automated testing harness" that  
23 tests for behavioral compatibility. (TX 3347 at 2 ("Types of test cases").) The only relevant  
24 requirement for compatibility is that the device be able to execute Dalvik code. (TX 2802 at 31.)  
25 Specifically, "[a] compatible Android device must support the full Dalvik Executable (DEX)  
26 bytecode specification and Dalvik Virtual Machine semantics." (*Id.*) The testing performed by  
27 the CTS treats the handset's virtual machine as a "black box" and gathers no information about  
28 *how* the virtual machine executes the DEX bytecode or conforms to the Dalvik Virtual Machine

1 semantics. (Ex. B, Brady 30(b)(6) Depo. Tr. 90:12–25.) Thus, not only is there is no evidence  
2 that the CTS would detect whether the symbolic resolution process in a device *functions* in the  
3 allegedly infringing manner, there is no evidence that the CTS could detect any *performance*  
4 change that depends on whether the symbolic resolution process operates in the allegedly  
5 infringing manner.

6 Indeed, Dr. Mitchell explains that the Dalvik virtual machine can be modified to properly  
7 execute Android applications without infringing the '104 patent by disabling a particular *internal*  
8 function. (Ex. C, Mitchell Patent Rpt. at ¶ 113.) According to Dr. Mitchell, that modified  
9 Dalvik virtual machine will still execute Dalvik executable files; it would simply take more time  
10 to do so. Dr. Mitchell does not explain whether the alleged performance decrease due to the  
11 modifications is sufficient to cause the CTS to fail, but even if it did the CTS would be unable to  
12 determine if the cause were due to the code modifications or some other software or hardware  
13 limitation.

14 *Third*, Google has significant unrebutted evidence that the CTS is incapable of generating  
15 probative evidence on issues relevant to the '104 patent. A Google employee named Patrick  
16 Brady testified at his deposition that the CTS performs “black box” testing of a device’s virtual  
17 machine. (Ex. B, Brady 30(b)(6) Dep. Tr. 90:12–25.) This means that the CTS provides input (in  
18 the form of Dalvik bytecode instructions) to the virtual machine and checks for the expected  
19 output, but the CTS does not check the “internal workings” of the virtual machine being tested.  
20 (*Id.* at 91:17–21.) Mr. Brady also testified that many handset manufacturers modified the Dalvik  
21 virtual machine and still produced handsets that passed the CTS. (*Id.* at 92:21–93:6.) Another  
22 Google engineer testified at his deposition that at least some Android compatible devices—  
23 meaning they passed the CTS—do not include the Dalvik virtual machine developed by Google.  
24 (Ex. F, Morrill Depo. Tr. 156:16–25.) Because the CTS only performs “black box” testing of a  
25 device’s virtual machine, test results are not probative of how that virtual machine handles  
26 internal functions such as the symbol resolution at issue with respect to the asserted claims of the  
27 '104 patent.

28 *Fourth*, Oracle may attempt to present a case of indirect infringement based on inference

1 and innuendo. Specifically, Dr. Mitchell’s opening patent infringement expert report includes the  
2 conclusory statement that Android branding indicates that a device “operates as it would if it were  
3 running stock Android from Google, at least with respect to the infringing functionality that I  
4 have identified.” (Ex. C, Mitchell Rpt. at ¶ 187.) There is no evidence to support this conclusion,  
5 and Dr. Mitchell never explained how the CTS would be capable of distinguishing between  
6 infringing and non-infringing virtual machines. Nor has he explained how the CTS might  
7 determine whether any observed performance differential resulted from a difference relating to  
8 the patented feature versus other factors like processor speed, memory bandwidth, ahead-of-time  
9 compilation, just-in-time compilation, or other factors.

10 Testimony from Dr. Mitchell would be especially inappropriate in view of his response to  
11 a deposition question about the probative value of the CTS relevant to the question of  
12 infringement of, inter alia, the asserted claims of the ’104 patent:

13 **Q. Can you tell me whether the CTS test from your review of the code**  
14 **tests for anything other than the security patents that are relevant to your**  
15 **opinions on infringement in this case?**

16 A. You know, I'm not going to be able to recall, you know, some significant  
17 period of time after carrying out those tests exactly what's covered. My  
18 recollection is that the CTS takes considerable time, at least hours, maybe more  
19 than ten hours on some platforms to run, if I remember correctly. So I'm sure that  
20 it tests many things.

21 (Ex. D, Mitchell Dep. Tr. at 61:15–61:25.) Dr. Mitchell had the opportunity to explain how the  
22 CTS could be probative of infringement, but he could not or would not provide an explanation.

23 *Fifth*, even if the CTS had some limited probative value, and it does not, the potential for  
24 jury confusion and prejudice weighs against allowing this evidence in to the patent phase of the  
25 trial. This confusion and prejudice stems from how the evidence was presented and used in the  
26 copyright phase of the trial. While the *mere existence* of an implementation of an API was  
27 arguably relevant to copyright infringement, this is not relevant to the patent phase: introduction  
28 of evidence of the CTS in the patent phase risks confusion where the jury might believe that if a  
device passes the CTS, it includes the same functionality provided by Google in the form of

1 source code provided as part of the Android software distribution. This false inference could lead  
2 to an erroneous finding of patent infringement by devices on which substantive evidence of the  
3 code they run is not presented. Because it has no probative value, evidence of the CTS should be  
4 excluded in view of the prejudice that would likely flow from its introduction.

5 *Finally*, Oracle may offer evidence of the CTS not as proof of infringement, as explained  
6 above, but only to show some sort of incentive not to change the Dalvik virtual machine. This  
7 generalized testimony was already presented in phase one by Mr. Morrill. A repeat of that  
8 testimony would be inappropriate cumulative evidence. (RT 2642:2–5.) Further, any probative  
9 value of this evidence would be insignificant at best and is clearly outweighed by the significant  
10 risk of confusion and prejudice to Google on the question of patent infringement.

11 **III. CONCLUSION**

12 For the foregoing reasons, Google respectfully requests that the Court exclude further  
13 testimony by Google engineers Patrick Brady and Daniel Morrill on the CTS and testimony by  
14 Dr. Mitchell regarding the CTS to prove infringement of either the '520 patent or the '104 patent.

15 Dated: May 6, 2012

KEKER & VAN NEST LLP

17 By: /s/ Robert A. Van Nest  
18 ROBERT A. VAN NEST

19 Attorneys for Defendant  
20 GOOGLE INC.