UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

RED BEND LTD. and
RED BEND SOFTWARE INC.,
 	
                         Plaintiffs,
 	
       v.
GOOGLE INC.,
 	
                       Defendant.
	CIVIL ACTION
	NO. 09-cv-11813

GOOGLE INC.,
 	
                  Counterclaim-Plaintiff,
       v.
 	
RED BEND LTD. and
RED BEND SOFTWARE INC.,
 	
                Counterclaim-Defendants.	

**GOOGLE INC.'S SURREPLY IN SUPPORT OF ITS OPPOSITION TO
RED BEND'S MOTION FOR A PRELIMINARY INJUNCTION**

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I. INTRODUCTION

In its Reply, Red Bend makes a number of new arguments and submits extensive new evidence, including lengthy declarations from its new damages expert, Terry H. Korn, and from its technical expert, Stephen Edwards. All of this could have, and should have, been included in Red Bend's opening papers. Because Red Bend held back, Google has sought leave to file this Surreply addressing Red Bend's new arguments and evidence, none of which justify the extraordinary relief of a preliminary injunction. *See* Google's Motion for Leave to File Surreply Memorandum (filed herewith).

The parties agree that damages are available to make Red Bend whole for Google's own use of Courgette. A reasonable royalty can be determined to adequately compensate Red Bend for the alleged direct infringement. Thus, the only dispute is over whether Red Bend can be adequately compensated for the alleged indirect infringement. But the indirect infringement Red Bend alleges cannot support issuance of a preliminary injunction for two key reasons:

- Downloading the Courgette source code is not an act of infringement by either Google or the third party who downloaded it. Red Bend cannot therefore obtain a remedy for mere downloading, and how accurately the number of downloads can or cannot be quantified is irrelevant.

- Red Bend concedes that it cannot show that any third party is in fact using Courgette in the United States, and direct infringement by a third party is a fundamental prerequisite of liability for indirect infringement.

As to Red Bend's amorphous claims of harm to its goodwill and future business opportunities, there is simply no supporting evidence. Courgette is not an alternative to any Red Bend product, and there is no evidence that Red Bend's business has been harmed at all by the alleged infringement. There is no evidence that it has lost a single customer, or even a potential customer. Speculation that Red Bend might somehow be harmed is not enough.

As shown in Google's Opposition, there are substantial questions as to both the infringement and validity of the '552 patent. Red Bend attempts to side-step Google's showing

by arguing for the first time about how the claims should be construed, and, where that fails, by contradicting its own previous arguments. None of Red Bend's new arguments show that it is likely to prevail on the merits.

In addition, Google addresses below an important new development that occurred after Google filed its Opposition (and before Red Bend filed its Reply). As shown in Google's Opposition, the Wetmore reference invalidates the asserted '552 patent claims. On March 23, 2010, the U.S. Patent and Trademark office instituted a reexamination of the patent-in-suit, finding that Wetmore raises a "substantial new question of patentability" affecting all claims of the '552 patent. This is yet another reason why Red Bend cannot bear its burden to justify a preliminary injunction.

II. RED BEND'S SHIFTING IRREPARABLE INJURY THEORY REMAINS ENTIRELY SPECULATIVE.

Red Bend sought to prove that it was likely to be irreparably injured based on nothing more than a conclusory declaration from its CEO. *See* Google Inc.'s Opposition To Red Bend's Motion For A Preliminary Injunction ("Opp.") at 11-15 (refuting Red Bend's opening arguments and evidence). In Reply, however, Red Bend offers several new theories, as well as new expert testimony. Red Bend's new arguments are based on speculation, not facts. Among the Reply's flaws are two fundamental errors:

First, Red Bend confuses its admitted inability to show direct infringement by third parties (a prerequisite of its indirect infringement claims against Google) with an inability to quantify damages. What Red Bend fails to appreciate is that this is an issue of liability, not remedy—and without proof of liability, there can be no entitlement to remedy.

Second, it confuses its burden to prove the likelihood of irreparable injury with the purported likelihood of future acts of infringement. Red Bend cannot bear its burden of proof on either prong by predicting that Google (or anyone else) may at some point in the future engage in new conduct that if it ever came to pass allegedly would constitute infringement. Red Bend's invitation to peer into a crystal ball is an invitation to error.

A. All Agree that Damages for Google's Alleged Direct Infringement Are Quantifiable.

Google uses Courgette as part of the process of creating updates for Google Chrome web browsers installed on computers running Microsoft Windows, and only for that. Opp. at 6; Bershad Decl. ¶ 4-5; Walker Decl. ¶¶ 74-75; Ex. 5.[1,2] As even its own economic expert concedes, monetary damages are available to compensate Red Bend for this alleged direct infringement. Ex. 38 (Korn Depo.) at 160:13-161:3, 216:15-21; *see also* Korn Decl. ¶¶ 40-41 (same); Bakewell Decl. ¶¶ 15-22.

What Red Bend claims in Reply is "unquantifiable" is the distribution of the Courgette source code and third-party use of the compiled software.[3] Reply at 16. But these are not acts of infringement. Red Bend has to meet the first prong of the *Titan Tire* test by showing that it is likely to succeed on the merits as to infringement (and validity). *Titan Tire Corp. v. Case New Holland, Inc.*, 566 F.3d 1372, 1375-76 (Fed. Cir. 2009); *see also* Opp. at 8. To meet the second prong, it has to separately show that the same acts of infringement are, in turn, likely to cause irreparable injury. *Titan Tire*, 566 F.3d at 1375-76; *The Quigley Corp. v. Gumtech Int'l, Inc.*, No. 99-5577, 2000 U.S. Dist. LEXIS 4957, at *100-01 (E.D. Pa. April 19, 2000) (patentee failed to establish irreparable harm because loss of market share was not shown to be due to sales of the accused infringer's products); *Advanced Cardiovascular Systems, Inc. v. Medtronic Vascular,*

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[1] Unless otherwise indicated, all Exhibits are attached to Declaration of Susan Baker Manning in Support of Google's Opposition to Red Bend's Motion for a Preliminary Injunction (filed March 1, 2010) (attaching Google exhibits 1-37) or the Second Declaration of Susan Baker Manning in Support of Google's Opposition to Red Bend's Motion for a Preliminary Injunction (filed herewith) (attaching Google exhibits 38-42).

[2] Red Bend is aware of this, and has no contrary evidence (because none exists). It nevertheless attempts to confuse the Court by

Courgette is not used for anything other than creating updates for the Google Chrome web browser running on Windows, and cannot be used on non-Windows systems. Opp. at 6-8. Its speculation that Courgette "likely" will be rewritten so as to be able to create updates for other types of software is just that: speculation.

[3] Source code is written in a human-readable programming language, such as C++, and must be compiled into executable code in order to be run on a PC. Walker Decl. at ¶¶ 28-30.

Inc., 579 F. Supp. 2d 554, 560 (D. Del. 2008) (no irreparable harm where the patentee failed to identify direct losses suffered as a result of the accused infringer's sales). In other words, liability cannot be divorced from remedy. *Quigley*, 2000 U.S. Dist. LEXIS 4957, at *100-01; *Advanced Cardiovascular*, 579 F. Supp. 2d at 560. Here, the only possible liability is for Google's own use of Courgette. As shown below, the only other acts that concern Red Bend are either not acts of infringement or, by Red Bend's own admission, unproven. Therefore, the availability of damages to remedy direct infringement means the Motion must be resolved in Google's favor. *Eli Lilly & Co. v. American Cyanamid Co.*, 82, F.3d 1568, 1570-71 (Fed. Cir. 1996); *Matrix Group Ltd., Inc. v. Rawlings Sporting Goods Co., Inc.*, 378 F.3d 29, 34-35 (1st Cir. 2004); *McDonough v. Trustees of University System of New Hampshire*, 704 F.2d 780, 784 n.2 (1st Cir. 1983); *cf. eBay, Inc. v. MercExchange LLC*, 126 S. Ct. 1837, 1839 (2006) ("According to well-established principles of equity, a plaintiff seeking a permanent injunction must . . . demonstrate . . . that remedies available at law, such as monetary damages, are inadequate to compensate for that injury[.]").

1. Downloading the Courgette source code is not an act of infringement.

As Google has pointed out, the mere downloading of the Courgette source code is not an act of infringement by anybody—not by Google who posted the code, and not by the third-party who downloaded it. *See* Opp. at 25 n.11. Certainly the Courgette source code itself cannot create the system of asserted claims 21 and 55, or practice the method of asserted claims 8 and 42. The Courgette source code cannot, even in theory, infringe the '552 patent unless and until it is compiled into machine code and run on a computer. *Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 446 (2007) (software capable of performing the speech processing described in an apparatus claim did not, standing alone, infringe: "Infringement occurs only when Windows is installed on a computer, thereby rendering it capable of performing as the patented speech processor."); *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005) ("Congress has consistently expressed the view that it understands infringement of method claims under section 271(a) to be limited to use."); *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d

770, 773 (Fed. Cir. 1993) ("a method or process claim is directly infringed only when the process is performed").

2. **Red Bend Cannot Premise a Preliminary Injunction on Harms Flowing from Unproven Indirect Infringement.**

Red Bend's Memorandum in Support of Motion for Preliminary Injunction ("Memo.") included no evidence whatsoever of direct infringement by any third party. *See* Opp. at 24-25; *see also Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1326 (Fed. Cir. 2004) ("There can be no inducement of infringement or contributory infringement without an underlying act of direct infringement."); *Mallinckrodt, Inc. v. E-Z-Em Inc.*, 670 F. Supp. 2d 349, 354 (D. Del. 2009) ("Claims for indirect infringement cannot exist in the absence of direct infringement.") (citing *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed.Cir.2004)).

Red Bend's Reply papers are no better. Red Bend alleges that a handful of open source developer organizations have reposted the open source Chrome web browser source code, including the Courgette source code, and that two non-parties have run the Courgette software. *See* Reply at 16.[4] It makes these assertions in its irreparable injury discussion without any attempt to show that the elements of indirect infringement are met—and it is clear why. Reposting the code is no more an act of direct infringement than is posting it. *Microsoft*, 550 U.S. at 446; *NTP*, 418 F.3d at 1319; *Joy Technologies*, 6 F.3d at 773. As to the two non-parties who allegedly ran the Courgette software, it is not at all clear what they did. But whatever they did, they did it in, respectively, Lebanon and China. *See* Second Tempesta Decl., Ex. 45; http://www.splayer.org/. Red Bend's U.S. patent rights end at the U. S. border. Executing

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[4] It also asserts that "closed source organizations are likely also using the infringing code [sic] in closed products," but again offers no evidence at all. Opp. at 16 n.18. Speculation is not evidence. *See Winter v. Natural Res. Def. Council, Inc.*, 129 S. Ct. 365, 375-76 (2008) (internal citations omitted) ("Issuing a preliminary injunction based only on a possibility of irreparable harm is inconsistent with our characterization of injunctive relief as an extraordinary remedy that may only be awarded upon a clear showing that the plaintiff is entitled to such relief."); *City of Los Angeles v. Lyons*, 461 U.S. 95, 111 (1983) (equitable relief may not be premised upon speculative claims of future injury); *In re Rare Coin Galleries of America, Inc.*, 862 F.2d 896, 902 (1st Cir. 1988) ("Speculation or unsubstantiated fears of what may happen in the future cannot provide the basis for a preliminary injunction.").

Courgette outside of the United States cannot be an act of direct infringement. *Deepsouth Packing Co., Inc. v. Laitram Corp.*, 406 U.S. 518, 527 (1972) ("The statute makes it clear that it is not an infringement to make or use a patented product outside of the United States.") (superseded by statue on other grounds); *see also Microsoft*, 550 U.S. at 449 (source code is not machine readable, and is not a "component" the foreign supply of which gives rise to liability under § 271(f)); *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 576 F.3d 1348, 1365-66 (Fed. Cir. 2009) ("[35 U.S.C. s]ection 271(f) does not apply to method or process patents.").

Red Bend not only concedes, but emphasizes that it cannot show how often third parties use Courgette. *See* Opp. at 17 ("it is virtually impossible to identify and/or police [third party] infringers"); *id*. at n.19 (describing third party use as "unquantifiable"); Korn Decl. at 11 n.19 ("it is impossible to determine all the infringing users"); *id.* at 25 ("there is no feasible way to track all parties who are downloading the infringing software [sic], and therefore *have the potential* to be current or future infringers") (emphasis added). This is simply an admission that Red Bend cannot show that third parties infringe *at all*.

Discovery will give Red Bend an opportunity to seek proof for its claims. If Red Bend can show indirect infringement by Google at trial, including the requirement that it show direct infringement by third parties, it can get a remedy for the proven indirect infringement. Bakewell Decl. ¶ 21. It cannot obtain a remedy, not after trial and certainly not on a preliminary injunction motion, for infringement it cannot prove. Thus Red Bend's argument regarding the ostensible difficulty in quantifying alleged third party use of Courgette cuts the other way and shows why its Motion should be denied.

B.   There is no evidence that Red Bend is likely to lose revenue or "market opportunities."

Red Bend's opening argument on its lost revenue and market opportunities was literally two sentences, Memo. at 17-18, and its only proffered "evidence" was a conclusory paragraph in the declaration of its CEO, *id*. Red Bend's Reply has five pages of argument, and three new theories. Red Bend argues for the first time: (1) that although Courgette is not used for anything other than updating the Google Chrome web browser, in the future it "likely" will be used in

conjunction with other products; (2) that Red Bend will be forced to change its "business model"; and (3) that it competes with Google[5] in the never-before-heard-of "converged market of connected devices," a "market" in which it will be unable to obtain new customers. Red Bend has no new pertinent evidence, however, and its theories fail under scrutiny.

1. Courgette is used to update the Google Chrome web browser.

Google independently developed Courgette to generate updates for the Google Chrome web browser on computers running Microsoft Windows. Opp. at 6. Courgette cannot be used to update mobile devices or even other computer systems that do not use the Intel x86 instruction set and the Windows portable executable file format. *Id.*[6] In particular, Courgette is not used to provide software updates to mobile phones running on the Android platform. *Id.* at 7.

Id.

These facts are well supported and beyond genuine dispute.[7] Red Bend, however, ignores them.

Reply at 19. It was true when Google submitted its Opposition and it is true now: there is not a shred of evidence for this. The documents Red Bend relies upon merely show discussions of the possibility of further development. Other evidence shows that those discussions went nowhere. Opp. at 7 n.4; Exs. 9, 23, 24; Bershad Decl. ¶ 4.

In particular, Red Bend refuses to acknowledge that Android is irrelevant. Well aware of

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[5] Red Bend does not, and cannot, claim that any Red Bend product competes with Courgette.

[6] If one attempts to run Courgette on another type of executable, the software simply reverts to bsdiff, an acknowledged non-infringing alternative. Second Tempesta Decl., Ex. 8 (Walker Depo.) at 240:12-241:5.

[7] Although Red Bend criticizes Mr. Bershad's declaration, it offers no evidence that he is wrong. To the contrary, Mr. Bershad's testimony was well-informed, truthful, accurate, and consistent with the documentary evidence.

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the actual facts and evidence, it nevertheless claims for the first time that Courgette is somehow involved in the update process for Android phones. Reply at 20 & n.23. Red Bend even suggests that Courgette simply may be used in conjunction with Android under a different name. Reply at 20. It cites no evidence, and for good reason. *Cf*. Opp. at 7-8; Bershad Decl. ¶ 4;

The prediction that Google "likely will use Courgette to update Android" is equally baseless. Reply at 20 (citing only a document about Red Bend's own vRapid Mobile product). Predictions about future, allegedly infringing conduct simply have no bearing on whether Red Bend can get a preliminary injunction now. *See Winter*, 129 S. Ct. at 375-76; *City of Los Angeles*, 461 U.S. at 111; *Rare Coin Galleries*, 862 F.2d at 902.

Red Bend's other new argument is that Courgette will "very likely" be used to update software running on ChromeOS devices when they are released. Reply at 21. From this prediction flows Red Bend's claim that it will be irreparably injured because it will be shut out of the market for providing updates to ChromeOS devices. *Id*. In fact, there is nothing at all in the record about how (or whether) ChromeOS devices will be updated, whether Red Bend has the technology or resources to provide updates for ChromeOS, or which of the numerous non-infringing update software alternatives might be available in place of either Courgette or Red Bend's product. *See Automated Merchandising Systems*, 2009 WL 4878643, at *3 ("[L]ost sales standing alone are insufficient to prove irreparable harm; if they were, irreparable harm would be found in every case involving a manufacturer/patentee, regardless of circumstances.") (internal quotations omitted); *see Medtronic Sofamor Danek USA., Inc. v. Globus Medical, Inc.*, 637 F. Supp. 2d 290, 314 (E.D. Pa. 2009) (because plaintiff failed to put forth evidence of its loss of market share or goodwill, the court denied entry of a permanent injunction for failure to show irreparable harm).

Red Bend has not attempted to show that either Android and ChromeOS infringe, and the evidence is clear that Android (an existing product) does not use Courgette. ChromeOS has not been released, and cannot be relevant until it is (and, in any case, there is no evidence that

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Google currently intends to use Courgette). Both Android and ChromeOS are irrelevant.

2. Red Bend's business model

Red Bend now contends that it will be irreparably harmed because at some unstated time in the future will be "forced" to change its "business strategy and model" because it cannot charge a licensing fee for its software so long as Courgette is available. Reply at 21-22.[8] This novel claim is implausible.

[9]

There is no evidence the Red Bend has lost a single customer or potential customer. *See, e.g.,* Ex. 11 (Salinger Depo.) at 205-206.[10] Red Bend does not address this, or explain how it was able to pursue its "business model" despite the long-time availability of open source non-infringing alternatives such as bsdiff. *See* Second Tempesta Decl., Ex. 43 at 3; http://www.daemonology.net/papers/bsdiff.pdf (2003 paper referenced in Ex. 43); Ex. 11 (Salinger Depo.) at 83-84 (bsdiff is not accused of infringement); Ex. 38 (Korn Depo.) at 194-95

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[8] Red Bend goes so far as to suggest that Google is trying to "force" this change. Google has no interest in how Red Bend does business. To make the contrary claim, Red Bend conflates its own device management software, which it concedes does not practiced the patent-in-suit, with its patented technology. Ex. 10 (Salinger Depo) at 41 (Red Bend's device management software, vDirect Mobile, does not practice the '552 patent).

That is neither nefarious, nor a sign that Google has designs on Red Bend's business model. All contributions to Android are in open source, and Red Bend is free to contribute or not depending on whether it perceives a business benefit in doing so (as many companies do). *See also* http://www.redbend.com/blog/2009_08_01_archive.asp (describing the benefits to Red Bend of the open source movement).

[9]

[10] In a footnote, Red Bend throws in a new price erosion theory, asserting flatly that "one would not pay for something they can easily obtain for free." Reply at 22. Without evidence, this assertion should be disregarded too. *Winter*, 129 S. Ct. at 375-76; *City of Los Angeles*, 461 U.S. at 111; *Rare Coin Galleries*, 862 F.2d at 902. Lest it miss any possible hook, Red Bend also claims that it is on the verge of collapse. Reply at 22. Nonsense.

(bsdiff is one of the available non-infringing alternatives). Once again, Red Bend has no evidence—the cited testimony is, in fact, silent on the issue—and its theory makes no sense in light of the facts.

3. "Convergence" is a red herring.

Courgette is not an alternative to Red Bend's vRapid mobile product (the only product it claims practices the patent in suit). *See* Opp. at 13. Red Bend, however, attempts to side-step this by arguing for the first time that it and Google compete in the "converged market for internet connected devices." Reply at 17. This is implausible. A number of Red Bend documents confirm that it does business in the mobile phone, machine-to-machine (or "M2M"), and WiMax markets. *See, e.g.,*   ; http://www.redbend.com/markets/index.asp. Not a single internal Red Bend document describes it as doing business in a "converged market for internet connected devices," (whatever that may be).

Nor is the assertion relevant. It is certainly true that PCs are no longer the only consumer devices capable of allowing a user to access the Internet. But no one, possibly other than Red Bend, thinks a mobile phone is indistinguishable from a PC. Even if mobile phones and PCs offer users increasingly similar functionality, they still have profoundly different underlying architectures. Unlike Courgette, Red Bend's vRapid Mobile product does *not* update software running on PCs. Ex. 11 (Salinger Depo.) at 185-186. Unlike vRapid Mobile, Courgette does not update software or firmware running on mobile phones. Opp. at 6. Speculation about how future developments will impact demand for different software with different functionality has no bearing on the Motion. *Winter*, 129 S. Ct. at 375-76; *City of Los Angeles*, 461 U.S. at 111; *Rare Coin Galleries*, 862 F.2d at 902.

C. There is No Evidence that Red Bend's "Goodwill" Has Suffered, Much Less that Any Such Harm is Irreparable.

Red Bend's Motion included no explanation or evidence in support of the claim that its "goodwill" would be irreparably injured by the alleged infringement. *See* Opp. at 15. The Reply now offers two new theories. The first is not just that Courgette infringes the '552 patent, but that Courgette is somehow an affirmative assertion that Red Bend's technology is worthless.

Reply at 23. Red Bend's reasoning is difficult to follow, but Red Bend appears to assume that Courgette is indistinguishable in the mind of someone (Red Bend does not say who or why) from the '552 patent. This misperception, ostensibly, leads to the perception that Red Bend has misrepresented the scope and value of its patented technology. *Id.* The theory traffics in much rhetoric, but little logic. There is no evidence in the record as to how Red Bend is perceived by its customers, or that this perception has been affected by Courgette. *See, e.g., Kimberly-Clark Worldwide, Inc. v. First Quality Baby Products, LLC*, — F. Supp. 2d —, 2009 WL 4912098, *12 (E.D. Wis. Dec. 11, 2009) ("loss of reputation as an innovator [is] more speculative and thus carr[ies] little weight").

Red Bend's second new theory is, essentially, that "goodwill" is a zero-sum game. Opp. at 23-24 (citing Korn Decl. ¶¶ 53-54).[11] However, neither Red Bend nor its expert can explain how positive reactions to Courgette among a handful of blog commentators have any impact on Red Bend's reputation or goodwill. Importantly, none of the evidence Red Bend relies upon suggests that anyone—much less a customer or potential customer—has a negative perception of Red Bend that flows from Google's use or distribution of Courgette.

III.   RED BEND HAS NOT SHOWN THAT THE PATENT IS LIKELY INFRINGED.

In its Opposition, Google showed that Courgette operates very differently from the processes disclosed in the '552 patent, and that the '552 patent, as properly construed, is not infringed. Opp. at 19-24. Red Bend's exert tacitly acknowledges that Courgette is in fact different from the '552 patent, and explicitly agrees that it operates as described by Google. Edwards Decl. ¶ 3. Nonetheless, Red Bend submits new "evidence" in the form of a fifty-one page, single-spaced declaration from Dr. Edwards comprising "supplemental" analysis on the Courgette code that should have been included in its original Motion papers. It does so despite its own assertion that the issues boil down to claim construction—something that Red Bend

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[11] Mr. Korn made no effort to determine whether Red Bend's goodwill has changed in the nine months since Courgette became publicly available. Ex. 38 (Korn Depo.) at 250-52. He explained that, in order to do so, he would have to consider "speculative inputs" regarding Red Bend's future market opportunities, and the changing marketplace. *Id.* at 251.

entirely failed to address in its opening papers, and as to which Dr. Edwards's views are mere extrinsic evidence. Red Bend's new arguments are conspicuously inconsistent with the opening papers,[12] frequently mischaracterize the record, and fail to rebut Google's showing that the '552 patent is not infringed.

A. Courgette Does Not Infringe the '552 patent.

In its opening brief, Google established five basic differences between the Courgette program and the asserted claims. In its Reply, Red Bend relies on new arguments, cites to new evidence and frequently mischaracterizes the record.

1. Courgette does the diffing on symbolic tables and encoded streams that are not "executable."

Red Bend attempts to obfuscate the meaning of "executable." Where it equated "executable program" and "object code" in its opening papers, First Edwards Decl. ¶ 12, it now asserts that for purposes of infringement Windows portable executable (PE) files are "executable" (even though they include some symbolic code), but for purposes of invalidity object files are not executable (even though they too include some symbolic code). Reply at 4 n.6 and 13; Second Edwards Decl. at ¶¶ 27, 118 and 137. Red Bend cannot have it both ways, and certainly cannot meet its burden of proof to show that the '552 patent is likely infringed and valid given its inconsistent and irreconcilable positions.

Red Bend's new argument on the "executable" requirement of the claims is that it is enough that Courgette <u>starts with</u> executable programs in the Windows PE format. *See* Reply at 4 & n.6. Although it acknowledges that the Windows PE format includes some symbolic code in addition to executable code, Red Bend argues that this does not matter for purposes of infringement. *See* Reply at 4 n.6; Second Edwards Decl. ¶ 27. Nevertheless, for purposes of rebutting invalidity, Red Bend relies on its assertion that object files are a blend of both object (executable) code and symbolic code. Reply at 13; Second Edwards Decl. at ¶¶ 118-137. Red

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[12] For the Court's convenience, a table summarizing some of Red Bend's inconsistent positions is attached as Appendix A.

Bend cannot have it both ways, and its new argument should be given no weight.

2. Courgette does not generate the "modified old program [data table]" or the "modified new program [data table]" required by the claims.

In Reply, Red Bend argues that it would be "clear error" to construe the "data table" claims to be limited to executables, just as the "executable program" claims are. Reply at 5. Red Bend's new argument on the "modified old program [data table]" and "modified new program [data table]" limitations is inconsistent with both its opening papers and the record.

First, the fundamental premise of Red Bend's opening infringement argument was that all of the asserted independent claims are substantively identical (despite some variation in claim language). Memo. at 9-11; First Edwards Decl. ¶ 25 ("I consider 'executable program' and 'data table' equivalent."). That is why it analyzed only claim 42 and its dependants, yet asked the Court to find that all of the asserted claims are likely infringed. Memo. at 9-11. Its new contradictory argument should be disregarded.

Second, Red Bend sets up a straw man by mischaracterizing Google's construction. The "modified old program" (or "data table") and "modified new program" (or "data table") claim terms are properly understood to be "a version of the actual program or data table in its <u>original</u> executable form with certain portions replaced." Opp. at 18 (emphasis added). Red Bend and its expert go off on an irrelevant tangent arguing that Google's construction is hopelessly vague because it is impossible to know what a "form" looks like. Google's construction, however, is quite definite—requiring not just any form but the "original executable form" for the modified program. Opp. at 18.

Third, Red Bend claims that Google's construction is inconsistent with the preferred embodiment because "[i]n the preferred embodiment, the references in intermediate programs/data tables are often symbolic and thus not executable." Reply at 6. The intermediate tables described in the specification are not claimed, and Google's construction pertains only to what is claimed: the "modified programs" and "modified data tables." Google's construction requiring the original programs/data tables to be executable and the modified programs/data tables to keep their original executable form, with certain portions replaced, *is* the preferred

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embodiment. Google's construction does not require that intermediate data created has to have any particular form. Opp. at 17-18 (citing patent).

Fourth, Red Bend incorrectly alleges that "Google relies on a single passage of the file history as purportedly creating a clear disavowal of claim scope for all claims, even though the applicant made clear that the cited comments related to 'amended claim 1.'" Reply at 6. In fact, Google' s construction relies on the very passage in the prosecution history that Red Bend highlighted in its Memorandum as describing the heart of the '552 patent. Opp. at 16-17; *see also* Memo. at 6. Google's construction is extensively supported by multiple passages in the patent and prosecution history. Opp. at 16-17. And, as Google showed, Red Bend's disavowal of claim scope was explicit. *Id*.; *see also* Ex. 2 at RedBend0000151-52 (adopting "executable" arguments for claims 8 and 21) & (distinguishing claims 42 and 55 from the prior art on the same grounds); First Edwards Decl. at ¶ 25.

Red Bend further suggests that even if the cited prosecution language applied to all claims, there were additional grounds of distinction. Reply at 7. This is not the law; arguments made to distinguish prior art are limiting. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 733 (2002). Red Bend's Reply characterizes the file history arguments as distinguishing Okuzumi because the claims concerned "preparatory actions" taken on the programs *after* they are input but *prior* to the difference generation. This is inconsistent with Red Bend's position in the same paragraph that the prosecution history arguments are only relevant to having "executables" at the outset of the process. In any event, Google has established a clear basis for the applicability of the file history; therefore, all of the preparatory actions identified in the file history would apply after the executable programs are input, but *prior* to generating the difference result, as argued by Red Bend during prosecution in order to distinguish the prior art.

3.   Courgette does not process "substantially each reference."

Courgette does not recognize a substantial number of references that change due to insert or delete modifications. Opp. at 21-22; Walker Decl. ¶¶ 45-51. The language of each

independent claim requires that substantially each reference that changes due to insert/delete modifications be reflected as an invariant reference in the modified old and new programs/data tables. In its Motion, however, Red Bend did not address this limitation at all. Now, however, Red Bend submits a one paragraph argument contending that Courgette does identify and render invariant substantially each "relevant reference." Reply at 7-8. It then cites to no fewer than forty paragraphs of Dr. Edwards's new declaration (¶¶ 62 - 102).

In his lengthy new discussion, Dr. Edwards does not dispute Dr. Walker's testimony that Courgette does not recognize many relative addresses. And despite the length of the discussion, Dr. Edwards addresses only one class of relative address instructions not recognized by Courgette and not the other class identified by Dr. Walker—relative references to data.[13,14] In particular, Dr. Edwards's new experiments (summarized in Exhibit L), in which he tried to quantify Courgette's treatment of references, were based only on his analysis of what he describes as "relevant references," but omitted whole classes of relative references that Courgette does not recognize. In fact, the numbers in Exhibit L appear fatally flawed. Google's analysis shows that only one reference (an absolute reference) is different between the Reva and Revb programs, but Dr. Edwards asserts in Exhibit L that 499 absolute references and two additional Rel8 references are different. His declaration is also directly at odds with that of Dr. Walker, who found that Courgette ignores a significant number of relative references. Accordingly, Red Bend is wrong to assert that this element is clearly met or not in dispute.

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[13] Relative references to data are ubiquitous in executable programs, as data constantly moves between memory and registers in a processor. There were three such relative references to data (on one page of code discussed with Dr. Edwards at his deposition) that can change due to insert delete modifications. Edwards ignores all of these in one sentence, without more, stating that "[n]o data instruction in the Intel architecture uses an instruction-pointer relative addressing mode, so Courgette considers all the relevant data instructions." *See* Edwards Reply declaration at ¶ 79. This is beside the point.

[14] Edwards' analysis in this area is inconsistent at best. At ¶ 21 of his declaration, he states "*While it is true that the reference addresses for such invariant references are excluded from the difference result in the preferred embodiment of the '552 Patent*, such a narrow construction makes no sense," (emphasis added). In his hurry to criticize Dr. Walker in his "Annotated Claim Construction" (Ex. A) he makes the opposite point: "Walker also construes these to mean '*so that the reference addresses are excluded from the difference result,*' but again, this is not true in the preferred embodiment of the '552 patent." Edwards Decl., Ex. A at 2 (emphasis added).

4. Courgette does not distinguish references that change "due to delete/insert modifications" from those that change for other reasons.

Element (b)(i) of each independent claim requires finding reference entries that change due to delete/insert modifications so that those references can be replaced with invariant references. Although Red Bend states that Google provides no supporting evidence, Google's construction is supported by the claim language itself and the specification. *See* Opp. at 4-5 and 21-22 (citing Walker Decl. ¶ 45-50). Red Bend argues that the claims do not require identifying or finding references that change due to delete/insert modifications, but rather only passively requires the result to cause such references to be reflected as invariant apparently without any processing. Reply at 7-9 (citing Edwards Decl. ¶¶ 62-102). This argument is, however, contrary to Red Bend's statements to the examiner that element b(i) is an active processing step. Ex. 2 at RedBend0000154 ("[the method] concerns executable programs, applying processing steps to the references steps b(i)").

5. Courgette does not create the required "invariant references."

As noted above, Red Bend retreats in Reply from its former emphasis on the '552 patent's elimination of references that change due to insert/delete modifications from the difference result. The index values that Edwards proposes as invariant references are neither substitutes for references nor invariant references because Courgette does not prevent references that change due to insert/delete modifications from appearing in the difference result. Opp. at 21-22; Walker Decl. at ¶¶ 43, 49-50. The '552 patent, and Red Bend's original interpretation of that patent, are expressly based on the use of invariant references to eliminate references that change due to insert/delete modifications. This inconsistency with Red Bend's position in its Reply is transparent and should not stand.

Red Bend attempts to cast Google's support for its construction as limited to a single quotation from the prosecution history. Reply at 9. In fact, Google provides detailed evidentiary support for its construction, including references to the patent and prosecution history. Opp. at 19. Both experts rely on the same passage of the '552 patent that Google quoted as defining a key aspect of the invention. Walker Decl. ¶ 17; Edwards Decl. ¶ 15-17.

Red Bend also erroneously states that "Google simply has no evidence for its statement that 'Courgette … does not prevent [invariant references] from appearing in the difference result." Reply at 10. First, Google presents extensive evidence that Courgette does not prevent references that change due to delete/insert modifications from appearing in the difference result. *See* Opp. at 5, 21-22 (citing Dr. Walker's detailed analysis and Exhibit L) & 22-23 (citing Walker Decl. at ¶ 49). Second, Red Bend's point is irrelevant because the claims require creating invariant *references* so that references that *change* (due to delete/insert modifications) can be excluded from the difference result, not for the purpose of excluding *invariant* references from the difference result.

Although Red Bend continues to assert without proof that the '552 patent is infringed "by equivalents," Reply at 11, it has never presented any analysis or proof. *See* Opp. at 23-24. By contrast, Google has demonstrated that the doctrine of equivalents does not apply for several reasons, including a prosecution history argument applicable to all asserted claims. Because Courgette does not infringe literally or by equivalents, Red Bend's Motion fails.

IV. RED BEND HAS NOT SHOWN THAT THE PATENT IS LIKELY VALID.

A. The '552 Patent is Anticipated and/or Obvious.

Red Bend argues on reply that "Google all but concedes that Wetmore is not anticipatory." *See* Reply at 1 & 12. Nothing could be further from the truth. In filing the reexamination request, Google identified Wetmore as anticipatory of each asserted claim, and Dr. Walker has also explained that Wetmore is anticipatory. *See, e.g.,* Ex. 29 at 49-62; Walker Decl. at ¶¶ 65-73; Ex. O.[15] The PTO has determined that the Wetmore reference raises a "substantial new question of patentability" affecting all claims of the '552 patent and has instituted a reexamination of the patent-in-suit. Ex. 39.

Although the PTO's "substantial new question of patentability" finding is not precisely

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[15] Red Bend makes the exaggerated claim that it invented the "compact difference result." Reply at 3 n.4. Wetmore is only one of many prior art references that show otherwise. *See* Walker Decl. ¶¶ 66-68.

the same as the "substantial question of validity" standard to be applied here, *see Procter & Gamble Co. v. Kraft Foods Global, Inc*., 549 F.3d 842, 848 (Fed. Cir. 2008), the PTO's determination that Wetmore and the other references may well invalidate the '552 patent is strong evidence supporting the denial of a preliminary injunction. *Pergo, Inc. v. Faus Group, Inc.*, 401 F. Supp. 2d 515, 524 (E.D.N.C. 2005) ("[G]rant of a motion for reexamination … is probative to the issue of whether defendants have raised a substantial question of validity."); *Avery Dennison Corp. v. Alien Tech. Corp.*, 626 F. Supp. 2d 693, 702-03 (N.D. Ohio 2009) ("[C]ourts that have considered this issue have held that the PTO's action on a request for reexamination is directly relevant to the issue of whether the defendant has raised a substantial question of validity…."); *Everett Labs., Inc. v. River's Edge Pharms., LLC*, No. 09-3458, 2009 U.S. Dist. LEXIS 110945, at *9-10 (D.N.J. Nov. 24, 2009) (because the reexamination and defendant's invalidity defense raised the same issues, the reexamination was particularly probative of whether a substantial question of invalidity had been raised).

In an attempt to downplay the reexamination, Red Bend notes that just over 10% of all reexaminations "result in the cancellation of *all* claims of the patent at issue." Reply at 12 n.13 (emphasis added). Whether *all* claims are cancelled is beside the point. The relevant statistic is how often the asserted claims are cancelled or substantially rewritten. In three out of four reexamination proceedings, the claims are either changed (64%) or entirely cancelled (11%). *See* http://www.uspto.gov/about/stratplan/index.jsp#heading-1.

Although the institution of a reexamination proceeding may not itself be dispositive of whether there is a "substantial question of validity," courts do deny preliminary injunctions in cases where the PTO issues a rejection of the claims—as happens far more than 75% of the time. *Avery Dennison Corp.*, 626 F. Supp. 2d at 702, 707; *The Ohio Willow Wood Co. v. Alps South Corp.*, No. 2:05-1039, 2009 U.S. Dist. LEXIS 87543, at *10 (S.D. Ohio Sept. 8, 2009); *DUSA Pharms., Inc.*, No. 06-1843, 2007 U.S. Dist. LEXIS 16005, at *8 (D.N.J. Mar. 6, 2007) (the court dissolved a preliminary injunction in light of a PTO office action rejecting the claims). Under PTO procedures, a first office action is expected in May or June. Manual of Patent Examining

Procedure § 2261.

The reexamination aside, Google's Opposition raised a substantial question of validity, and nothing in Red Bend's reply overcomes that. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350-1351 (Fed. Cir. 2001). Red Bend asserts anew that Wetmore does not teach (1) modifying an executable file or (2) generating a compact difference result. The first argument is based on Red Bend's assertion that an object file is not an executable. But, as discussed above, Red Bend has already conceded that object code is an executable program, and that an executable file is an executable program. Edwards Decl. ¶ 12. It cannot now be heard to make the contradictory claim that Wetmore's disclosure of updates to object file and object code stored in a ROM is not executable. Reply at 13; *cf.* Second Tempesta Decl., Ex. 8 (Walker Depo.) at 200-201; Walker Decl. ¶ 66. In any case, the assertion is wrong. As Dr. Walker testified, and showed in his claim charts, Wetmore's updates are both compact and avoid multiple reference problems by replacing references with vectorized values. Second Tempesta Decl., Ex. 8 (Walker Depo.) at 233-235; Walker Decl. ¶¶ 66-70.

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B.   There Is No Secondary Evidence of Non-Obviousness.

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[16] Although Red Bend effectively concedes that there is no evidence of copying, it nevertheless accuses Google of "theft" and Stephen Adams of "plagiarism." Reply at 24 n.27 & 14. Red-faced rhetoric cannot compensate for lack of evidence. Red Bend claims that Google has known about the '552 patent since 2008 because among Mr. Adams's documents were two research papers. The first of these is a 74 page thesis in which the '552 patent gets half a sentence in a footnote. Second Tempesta Decl., Ex. 42 at 39. The second is a white paper, in which the authors identify Red Bend in an endnote as offering a "commercial FOTA solution[]" (but make no reference to the '552 patent). *Id.*, Ex. 43 at 3 (also noting several other "quite efficient delta generators" available, including bsdiff, those offered by Red Bend's competitors Innopath and Bitfone (now HP), and others). No facts in the record suggest that Mr. Adams knew of Red Bend or the '552 patent prior to Red Bend's communications in anticipation of this litigation.

Red Bend cannot demonstrate that commercial success, or any other secondary indicia, tends to show the non-obviousness of the '552 patent. First, it is not clear that any Red Bend product practices the '552 patent. In reply, Red Bend's technical expert asserts for the first time that vRapid Mobile practices the patent. Second Edwards Decl. ¶ 150. Dr. Edwards's "analysis" consists of a single sentence; he does not present a claim chart, or even an element by element analysis of any asserted claim.[17]

Third, vRapid Mobile is a multifeature product, and there is no evidence that the patented features drive sales. *Therasense, Inc. v. Becton, Dickinson and Co.*, 593 F.3d 1289, 1299 (Fed. Cir. 2010) (noting nexus requirement).

Nor is there other secondary evidence to support a non-obviousness finding. The only "high praise" Red Bend points to is half a sentence in a 74 page thesis that describes, without commentary, the "approach" of the '552 patent. Second Tempesta Decl., Ex. 42 at GOOG-0021990. A few emails between Google engineers discussing compression do not prove a failure of others to achieve the invention because nothing indicates they were trying to achieve the solution of the '552 patent. *Id.* at Exs. 15-18. Certainly, the efforts to develop Courgette do not evidence the failure of others to achieve the invention, Second Edwards Decl. ¶ 143; the (erroneous) premise of Red Bend's infringement case is that he succeeded.

V.   CONCLUSION

Google respectfully requests that the Court deny Red Bend's Motion for Preliminary Injunction. Red Bend strains to find irreparable injury, but the evidence simply is not there, and speculation cannot support a preliminary injunction. It cannot bear its burden of proof as to validity given the strength of the Wetmore reference (as acknowledged by the PTO) or its burden as to infringement given the clear differences between Courgette and the claimed invention.

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[17] Red Bend also cites Mr. Salinger's deposition and First Declaration, Mr. Salinger's testimony was wholly conclusory and without foundation. Ex. 10 at 62-64.

This case should proceed to the merits in the ordinary course.

Respectfully Submitted,

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Google Inc.,

By its attorneys,

Jonathan M. Albano, Bar No. 013850
jonathan.albano@bingham.com,
David M. Magee, Bar No. 652399
david.magee@bingham.com
BINGHAM McCUTCHEN LLP
One Federal Street
Boston, MA 02110-1726
Telephone: 617.951.8000

Susan Baker Manning (*pro hac vice*)
susan.manning@bingham.com
Robert C. Bertin (*pro hac vice*)
r.bertin@bingham.com
BINGHAM McCUTCHEN LLP
2020 K Street, NW
Washington, D.C. 20006-1806
Telephone: 202.373.6000

William F. Abrams (*pro hac vice*)
william.abrams@bingham.com
BINGHAM McCUTCHEN LLP
1900 University Avenue
East Palo Alto, CA 94303-2223
Telephone: 650.849.4400

Appendix A

Red Bend's Contradictory Arguments

Red Bend's Position in November	Red Bend's Position Now
The '552 patent difference result excludes references that change due to insert/delete modifications: • "The diff is then performed on the modified old and new programs thereby **generating a 'diff' result that excludes the effect of these invariant references."** Memo. at 6 (emphasis added). • As summarized by the inventor: The present invention is based on the observation that the relatively large size of the difference result stems from the alterations of reference in reference entries as a result of other newly inserted entries (and/or entries that were deleted). On the basis of this observation, the invention aims at generating a modified old program and a modified new program, wherein the difference in references in corresponding entries in said new and old programs as explained above, will be reflected as invariant entries in the modified old and new programs. *The net effect is that the invariant reference entries (between the modified old program and the modified new program), will not appear in the difference result, thereby reducing its size as compared to a conventional difference result obtained by using hitherto known techniques.* '552 patent at 3:31-46 (quoted with emphasis in Memo. at 6) • "Since corresponding reference entries are assigned corresponding labels, **changes in the reference (or target) of a reference entry due solely to insertions and deletions will not be included in the difference result.**" First Edwards Decl. at ¶17.	"The claims do not require any references to be excluded from the difference result." Reply at 9.

Red Bend's Position in November	Red Bend's Position Now
Invariant references replace references that change due to insert/delete modifications: • "[I]nternal references of corresponding instructions in the old and new programs are **replaced** with a common 'invariant' reference or label." (Emphasis added). Memo. at 6: • "… the desired invariant references are calculated by generating modified old and new programs where address references in entries **are replaced** by label marks…." (Emphasis added) First Edwards Decl. at ¶ 17.	"It is therefore err [*sic.*] to require 'replacing' in order to infringe the asserted claims." Reply at 11.
"I consider 'executable program' and 'data table' equivalent." First Edwards Decl. at ¶ 25.	"As to the 'data table' claims (42, 55), the word 'executable' *never appears at all*. It would therefore be clear error to construe those claims to require that the modified data tables be executable" Reply at 5 (emphasis in original).
Red Bend provided no claim construction argument in its opening memorandum, but rather relied entirely on its expert's table of definitions. Memo. at 9. Dr. Edwards offered no support or explanation for the constructions proffered in his declaration. *See* First Edwards Decl. at ¶ 18 & Ex. A thereto.	"'Conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.' *Phillips*, 415 F.3d at 1318." Reply at 8 n.8.