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EXPANDING PATENT LAW'S CUSTOMER SUIT EXCEPTION

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Abstract: Recent years have seen a marked increase in patent suits filed primarily for nuisance value. Non-practicing patent holders like Innovatio, Lodsys, PACid, and many others have collectively sued thousands of alleged patent infringers in cases that generally settle for less than the cost of mounting even the slightest defense. Suits like these overwhelming target the numerous resellers and end users of allegedly infringing products, rather than the accused products' original manufacturer. More individual defendants means more lawyers, more discovery, and, thus, more litigation costs to inflate settlement amounts. With legislative reform unlikely at present, doctrinal solutions to this problem are needed now more than ever. This article proposes one candidate: the customer suit exception. This doctrine allows courts to stay patent suits filed against "customer" defendants pending the outcome of litigation between the patentee and the accused technology's manufacturer. Doing so drastically reduces patentees' ability to impose litigation costs and, moreover, hands the reins of defense to the party best suited to challenge and value the patent-in-suit. Unfortunately, case law applying the exception has become increasingly rigid over time and, today, is incredibly difficult to satisfy. This article explores the history and evolution of the customer suit exception, explains why the doctrine is so rarely invoked and applied, and argues that courts should stay customer suits more frequently in order to promote litigation outcomes that reflect the value of asserted patents, not the cost of defense.

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Introduction

Exploitation of inefficiencies in the patent system may be at an all-time high. Suits filed by non-practicing entities (NPEs)—companies that acquire patents solely to license them, not to protect products¹—are on the rise.² So are the size of litigation costs,³ settlement amounts, and potential damages awards⁴ that innovators who actually commercialize technology face as a result of these suits.

¹ The NPE—or patent "troll"—ecosystem is complex. See, e.g., John R. Allison et al., Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents, 158 U. PA. L. REV. 1, 2 (2009) (dividing NPE patentholders into twelve categories, rather than grouping all NPEs together under the rubric of "troll"). Some commentators have developed alternative terminology intended to single out a subset of "trollish" NPEs. Colleen V. Chien, From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System, 62 HASTINGS L.J. 297 (2010) (defining "patent assertion entity" (PAE) as an entity that uses patents primarily to obtain license fees rather than to support the development or transfer of technology); Sara Jeruss et al., The America Invents Act 500: Effects of Patent Monetization Entities on US Litigation, 11 DUKE L. & TECH. REV. 357, 361 (2012) (using the similar term "patent monetization entity" (PME)). In this paper, we primarily discuss a subset of NPEs defined by behavior—namely, a penchant for filing suits primarily for nuisance value—rather than by their corporate structure or the provenance of their patents.

² See Jeruss, et al., supra note 1, at 365 (finding, in a study of 100 patent suits filed each year from 2007 to 2011, that the percentage attributable to NPEs was roughly 22% in 2007, 27% in 2008, 33% in 2009, 30% in 2010, and 40% in 2011); Colleen V. Chien, Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents, 87 N.C. L. REV. 1571, 1604 (2009) (finding, in a study of 2,300 high-tech patent suits filed between 2000 and 2008, that NPEs filed 10% of all suits initiated between 2000-2001, 16% between 2002-2003, 16% between 2004-2005, and 20% between 2006-2008).

³ According to a survey of law firms conducted by the American Intellectual Property Law Association, median patent litigation costs roughly doubled between 2001 and 2009, and doubled again between 2009 and 2011. *Compare* American Intellectual Property Law Association, Report of the Economic Survey 2001, at 85 (reporting that in cases with \$25 million or more potentially at stake the median cost per party from pleadings through discovery was \$1.5 million) *with* American Intellectual Property Law Association, Report of the Economic Survey 2009, at I-129 (reporting that the same figure had increased to \$3 million in costs) *and* American Intellectual Property Law Association, Report of the Economic Survey 2011 at I-155-56 (reporting that it increased again to \$6 million). *See also* Matt Miller, *Are You in Good Hands When IP Mayhem Strikes*, Discover Ready, June 5, 2012, *available at http://discoverready.com/blog/are-you-in-good-hands-when-ip-mayhem-strikes/* (reporting that the cost of patent litigation has increased about 48% increase since 2001).

⁴ Between 2006 and 2010, the median NPE damages award was more than twice as large as the median award to practicing patentholders. PwC PATENT LITIGATION STUDY 2011, http://www.pwc.com/en_US/us/forensic-services/publications/assets/2011-patent-

Satisfactory solutions to this problem have so far proven illusory, or at least politically unpalatable.⁵ Patent reform legislation enacted in 2011 has made, at best, superficial progress in stemming the tide of NPE litigation.⁶ And additional, meaningful legislative reform doesn't appear

litigation-study.pdf (finding that the median NPE award was \$6.9 million and the median practicing-patentee award was \$3.4 million). Between 1995 and 2000, the median NPE damages award was 23% larger than the median award to practicing-companies. *Id.* 2012 was the most profitable year to date for large, publicly-traded NPE Acacia Research Corporation. Press Release, Acacia Research Corp. (Feb. 21, 2013), *available at* http://www.acaciaresearch.com/pr/0221134thqtrfinancials2012.pdf.

⁵ Recently proposed legislation creating a fee-shifting scheme to deter frivolous NPE suits asserting high-tech patents died in committee without a public hearing. Saving High-Tech Innovators from Egregious Legal Disputes Act of 2012, H.R. 6245, 112th Cong. (2012), available at http://www.govtrack.us/congress/bills/112/hr6245. Few believe it ever had a legitimate chance of becoming law. See, e.g., Lisa Schuchman, Finding Creative Solutions for Fighting 'Patent Troll' Lawsuits, CORPORATE COUNSEL, Nov. 30, 2012,

http://www.law.com/corporatecounsel/PubArticleCC.jsp?id = 1202579781960&Finding_Creative_Solutions_for_Fighting_Patent_Troll_Lawsuits&slreturn = 20130118140841 (reporting that a panel of experts believed the bill was "unlikely to pass"). Moreover, though patent reform legislation was enacted in 2011, it passed congressional scrutiny only after virtually all serious reforms were stripped from the bill. See, e.g., Joe Mullin, Senate Passes Patent Reform, After Stripping Out All Controversial Measures, PAIDCONTENT, March 10, 2011, at http://paidcontent.org/2011/03/10/419-senate-passes-patent-reform-after-stripping-out-all-controversial-measu/.

⁶ Under section 299 of the Leahy-Smith America Invents Act (AIA), patentees may no longer sue multiple, unrelated defendants in a single patent suit. 35 U.S.C. § 299 ("[P]arties that are accused infringers may be joined in one action as defendants . . . only if . . . questions of fact common to all defendants . . . will arise [and] infringers may not be joined in one action as defendants or counterclaim defendants, or have their actions consolidated for trial, based solely on allegations that they each have infringed the patent or patents in suit."). Hopes that this change in law would increase the cost of litigation for NPEs, and thereby reduce the quantity of NPE infringement claims, have so far proven unfounded. NPEs now file multiple identical suits, rather one suit with multiple defendants. See, e.g., Norman IP Holdings, LLC v. Lexmark Int'l, Inc., 2012 WL 3307942 (E.D. Tex. Aug. 10, 2012) (noting a rise in "serially file[d] multiple singledefendant (or defendant group) cases involving the same underlying patents"); Charles R. Macedo et al., AIA's Impact On Multidefendant Patent Litigation: Part 2, Law360.com 2012), at http://www.law360.com/ip/articles/387458/aia-s-impact-onmultidefendant-patent-litigation-part-2 (noting that NPEs are exploring creative avenues to circumvent AIA joinder rules, including filing multiple nearly-identical complaints). As a result, the new joinder rules have markedly increased the number of patent suits with little change at all in the quantity of individual companies accused of infringement. See Colleen V. Chien, Patent Assertion Entities, Presentation at the Dec. 10, 2012 D.O.J./F.T.C. 24, Hearing on PAEs, available http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2187314 (reporting that the number of NPE-filed suits has risen sharply since the AIA's enactment, while the number of

likely at present because, though there is widespread agreement that *something* should be done, industry factions cannot agree on *what* should be done and at whose expense.⁷

Much of the disagreement over the "patent troll" problem is definitional. NPEs come in various shapes and sizes, 8 and not all are widely viewed as bad actors. 9 One thing that isn't seriously debated, however, is the utility of patentholders that specialize in nuisance-value patent litigation. No one champions these "bottom feeders" 10 of the NPE

accused infringers has remained roughly similar); Maya M. Eckstein, et al., *The (Unintended) Consequences of the AIA Joinder Provision* § IV.D.i, AIPLA Spring Meeting, Austin, Tex., May 10-12, 2012, *at* http://www.aipla.org/learningcenter/library/papers/SM/2012_Spring/Documents/2012SM-Materials/Eckstein_Paper.pdf (showing a 64% increase in the rate of patent litigation filings in all district courts post-AIA).

Figure 7 Even defenders of the NPE business model generally agree that at least some patentholders abuse the system. See Nathan Myhrvold, Inventors Have Rights, Too!, WALL ST. J., Mar. 30, 2006, at A14 ("Perhaps the biggest myth is . . . 'patent trolls' . . . who supposedly manipulate the patent system in a shady way. It does happen A tiny minority of patent suits are due to bad actors, but it's hardly a crisis."); Michael C. Smith, "Patent Pirates" Only Exist in Neverland, Tex. Lawyer, Oct. 11, 2004 (acknowledging that "patent litigation can price small defendants out of being able to defend themselves on the merits"); Marc Morgan, Stop Looking Under the Bridge for Imaginary Creatures: A Comments Examining Who Really Deserves the Title Patent Troll, 17 Fed. Cir. B.J. 165, 166 (2007) (arguing that "[i]nstead of hindering legitimate intellectual property businesses, the courts and legislature should focus on the main problem with patent litigation—patent quality").

⁸ For example, though universities, failed startups, individual inventors, and industry consortia are NPEs strictly speaking, each group has unique motivations and sophistication. Allison, et. al., *supra* note 1, at 2.

⁹ See, e.g., Mark A. Lemley, Are Universities Patent Trolls?, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611 (2008) (arguing that universities are not "trolls"); Chien, Of Trolls, supra note 2, at 1578 (arguing that individual inventors also fall outside the scope of patentees that deserve the label "troll"); Chief Judge Randall R. Rader, Remarks at the Eastern District of Texas Judicial Conference on the State of Patent Litigation (Sep. 27, 2011) ("[T]he NPE designation sweeps in some unintended 'culprits' like universities and research clinics and can also extend to almost every corporation and business because they practice only a fraction of their patent portfolio.").

¹⁰ David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 ALA. L. REV. 335, 369 (2012) (describing firms that are at the "bottom" of the contingent fee market); *see also Patent Quality Improvement: Hearings Before the Subcomm. on Courts, the Internet and Intellectual Property of the House Comm. on the Judiciary*, 108th Cong. 21 (2003) (testimony of David Simon) (defining patent trolls as "patent system bottom feeders" who buy "improvidently-granted patents from distressed companies for the sole purpose of suing legitimate businesses").

ecosystem: a class of patentees that overwhelmingly acquire old, ¹¹ extremely weak ¹² patents and assert them against the numerous, unsophisticated purchasers (rather than manufacturers) of allegedly infringing products in suits that typically settle for less than defendants' anticipated litigation costs.

Recent years have seen a spike in high profile patent assertion of this sort. In the last two years, NPE Innovatio has asserted its patent rights—rights the company alleges cover any use of a Wi-Fi network—against hundreds of small businesses like coffee shops and hotels that offer wireless network access to patrons, 13 invariably offering to settle for an amount far below the cost of mounting even the slightest defense. 14 Another patent-holder, Lodsys, has sued scores of companies, asserting patents allegedly covering (among other things) mobile "apps" that enable users to make purchases on mobile devices, 15 each time offering to settle for running royalties substantially below those at stake in a typical patent suit. 16 Other examples abound. Operating through multiple shell

¹¹ See Brian J. Love, An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Innovators?, 161 U. PA. L. REV. (forthcoming 2013) (finding that NPEs are responsible for about two-thirds of all patent suits and four-fifths of all infringement claims litigated within the last three years of the asserted patent's term).

¹² See John R. Allison, et al., *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677, 689, 694 (2011) (finding that between 2000 and 2010, NPEs that asserted the same patent in eight or more cases settled almost 90% of the time and, when forced to litigate to a judgment, lost more than 90% of the time).

¹³ In addition, Innovatio has threatened thousands more with suit. Amended Complaint at 19, Cisco Systems Inc. v. Innovatio IP Ventures LLC, No. 1:11cv09309 (N.D. Ill. filed Dec 28, 2011) ("Innovatio has sent more than 8,000 threatening letters to licensing targets [end users of Wi-Fi technology] in all 50 states"); Ashby Jones, *Cisco Calls Patent Trolls Racketeers*, WALL ST. J., Nov. 11, 2012, http://online.wsj.com/article/SB10001424127887324073504578113082258844080.html.

¹⁴ Gregory Thomas, *Innovatio's Infringement Suit Rampage Expands to Corporate Hotels*, The Patent Examiner, Sept. 30, 2011, http://patentexaminer.org/2011/09/innovatios-infringement-suit-rampage-expands-to-corporate-hotels (noting that Innovatio demands a few thousand dollars to settle when the typical patent suit settles for six- or seven-figure dollar amounts).

¹⁵ Lodsys - Piling It On, But To What Purpose, GROKLAW, July 22, 2011, http://www.groklaw.net/article.php?story=20110722082612424 (noting that as of July 2011 Lodsys had asserted its patents against 40 entities).

¹⁶ David Ruddock, *Patent Trolls: What Is Lodsys Actually Asking App Developers To Pay? You Might Be Surprised*, ANDROID POLICE, Nov. 2, 2011, http://www.androidpolice.com/2011/11/02/patent-trolls-what-is-lodsys-actually-asking-

companies, NPE Project Paperless has threatened to sue an untold number of small offices for infringing patents that allegedly cover copiers equipped to email scanned files.¹⁷ Personal Audio has similarly threatened end users of podcasting software.¹⁸ PACid has sued more than 50 retailers that sell products allegedly infringing patent rights to data encryption technology.¹⁹ And several NPEs, including E-Data,²⁰ Soverain Software,²¹ and Clear with Computers,²² have collectively sued well over one hundred online retailers for infringing patents that allegedly cover some aspect of e-commerce. In fact, small companies—not tech giants—are the predominant targets of NPE lawsuits.²³

Though enabled by many factors, ²⁴ nuisance value patent assertion wouldn't be possible without a large population of potential defendants. ²⁵

app-developers-to-pay-you-might-be-surprised (noting that Lodsys demands only $0.575\,\%$ in royalties while royalties in a typical patent case fall between one and four percent).

¹⁷ See, e.g., Joe Mullin, Patent Trolls Want \$1,000—For Using Scanners, ARS TECHNICA, Jan. 2, 2013, at http://arstechnica.com/tech-policy/2013/01/patent-trolls-want-1000-for-using-scanners/.

¹⁸ See, e.g., Julie Samuels, Podcasting Community Faces Patent Troll Threat; EFF Wants to Help, ELECTRONIC FRONTIER FOUNDATION, Feb. 5, 2013, at https://www.eff.org/deeplinks/2013/02/podcasting-community-faces-patent-troll-threat-eff-wants-help ("So far, Personal Audio has sued some pretty high-profile and beloved podcasts, like the Adam Carolla Show and HowStuffWorks. It also sent its threatening letters demanding a license to numerous podcasters, like Majority Report's Sam Seder").

¹⁹ See, e.g., Ryan Davis, Best Buy, Dozens More Sued Over Encryption Patents, IPINVESTMENTS GROUP, July 28, 2010, at http://ipinvestmentsgroup.com/index files/PACid-7.28.2010.pdf.

²⁰ See Michael J. Meurer, Controlling Opportunistic and Anti-Competitive Intellectual Property Litigation, 44 B.C. L. REV. 509, 517 (2003) (noting that E-Data, a company that "owns a patent which arguably covers financial transactions on the Internet," reportedly sent demand letters to 75,000 alleged infringers before suing forty-one companies for patent infringement).

²¹ See, e.g., Joe Mullin, How Newegg Crushed the "Shopping Cart" Patent and Saved Online Retail, ARS TECHNICA, Jan. 27, 2013, at http://arstechnica.com/techpolicy/2013/01/how-newegg-crushed-the-shopping-cart-patent-and-saved-online-retail/.

²² See, e.g., John S. Pratt & Bonnie M. Grant, Beware the Trolls: Explorers or Buccaneers, PATENT WORLD, Nov. 2008, at 18 (noting that Clear with Computers sued 47 defendants in one suit alone).

²³ Colleen V. Chien, *Startups and Patent Trolls* (working paper), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2146251 (finding that 55% of companies sued by NPEs have annual gross revenues below \$10 million).

²⁴ The nuisance-value troll business model thrives in the U.S. for a number of reasons. For one, unlike much of the world, the U.S. court system generally does not require the party who lost a lawsuit to pay the winner's legal fees as a matter of course. *See, e.g.*, John F. Vargo, *The American Rule on Attorney Fee Allocation: The Injured Person's Access to Justice*, 42 Am. U. L. REV. 1567 (1993). Moreover, though the law permits

Fortunately for NPEs, the Patent Act provides a ready supply. Under section 271(a), any entity that "makes, uses, offers to sell, or sells" subject matter covered by a patent claim is an infringer. Patentholders, thus, generally have the option to sue anywhere on the supply chain, from the original manufacturer of the infringing product all the way down to the retailer or end-user. Patentholders who aim lower on the supply chain generally can sue more individual parties and, thus, impose more litigation costs. For patentholders whose rights are worth relatively little

them to do so, courts have proven exceedingly reluctant to sanction patentees for bringing arguably "frivolous" or "exceptional" lawsuits. See, e.g., Mark A. Lemley, Rational Ignorance at the Patent Office, 95 Nw. U. L. Rev. 1495, 1530 (2001) ("Unfortunately, the patent law makes it very difficult for a prevailing defendant to obtain an award of attorney's fees. The statute requires the case to be 'exceptional.'"). Courts' reluctance to sanction patentees likely stems from the fact that it is incredibly difficult to determine the scope of patent claims and, thus, pronounce any given infringement allegation objectively baseless. See Kimberly A. Moore, Markman Eight Years Later: Is Claim Construction More Predictable?, 9 Lewis & Clark L. Rev. 231, 233 (2005) (finding that the Federal Circuit reversed 34.5% of district court claim construction rulings appealed between 1996 and 2003). See also Christian A. Chu, Empirical Analysis of the Federal Circuit's Claim Construction Trends, 16 Berkeley Tech. L.J. 1075, 1104 (2001) (reporting similar numbers).

²⁵ From a patent holder's perspective, it is economically worthwhile to bring suit if the "expected" value of litigation is greater than its "expected" litigation costs. In suits involving "weak" or "nuisance" patents, patent holders must minimize the expected costs of litigation in order to maximize the expected value of litigation. *See* Ranganath Sudarshan, *Nuisance-Value Patent Suits: An Economical Model and Proposal*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 163, 165-166 (2008). One way patent holders minimize expected litigation costs by using contingency fee arrangements. *Id.* at 166. Another way patentholders minimize expected litigation costs per defendant is by suing a large number of defendants together in the same action. *Id.* at 167-168 (noting that from the standpoint of a nuisance patent plaintiff, many litigation costs are substantially the same whether there is one defendant or many).

²⁶ 35 U.S.C. § 271(a). Unlike general tort law, patent law does not permit accused infringers to implead those who might be jointly and severally liable for the infringement. *See* Bernard Chao, *The Case for Contribution in Patent Law*, 80 U. CIN. L. REV. 97, 98 (2011) ("Under tort law's theory of contribution, when one party is sued, it can implead other parties that may be jointly and severally liable and ask that they pay their fair share of any judgment. Although contribution theory has spread to numerous areas of the law, patent law is not among them. Thus, when a manufacturer is sued for patent infringement, it cannot seek contribution from the component supplier that included the patented technology in its component.").

²⁷ Each customer defendant independently bears the risk of litigation. The defendant's expected value of litigation is a negative cost, which can be calculated in the following manner: cost = attorney fees + case costs + indirect employee costs + (probability of patent holder win * judgment for patent holder). Richard A. Kamprath, *Gaming the*

compared to the costs of litigation—roughly between \$1 to \$3 million for even suits of modest complexity²⁸—serial nuisance filings against resellers or users quickly becomes more profitable than litigating on the merits against the original manufacturer.

Not even manufacturers, who at first blush may seem like beneficiaries of this practice, like the current state of affairs. Widespread use of indemnification agreements means that manufacturers often remain on the hook for their customers' settlements. Manufacturers also legitimately fear loss of good will with existing customers and lost business in the future if they fail to stand up for customers accused of infringement. Cisco, Motorola, and Netgear jumped into the fray with Innovatio, and Apple fought Lodsys. But neither company was able to stop its NPE adversary from continuing to file suits, continuing to rack up alleged infringers' legal bills, and continuing to accept settlement checks from defendants hoping to triage their budgets.

This unfortunate reality raises the common sense question: Shouldn't patent law incorporate some mechanism permitting companies higher in

Patent System: An Empirical Analysis of Litigation Economics and Possible Solutions, at *23 (working paper), available at http://ssrn.com/abstract=1577906. A patent defendant will pay litigation costs no matter what the outcome of the patent lawsuit, and in addition may pay damages. This is a strong incentive to settle the case as early as possible – without regard to the merits of the underlying case. *Id.* at *23-24.

²⁸ See American Intellectual Property Law Association, Report of the Economic Survey 2011, at I-155-56.

²⁹ See Virginia DeMarchi, Contractual Indemnity Obligations for Patent Infringement Claims, A.B.A. INTELLECTUAL PROPERTY LITIGATION, vol. 21, no. 3 (Spring 2010), at 1 ("indemnity provisions allocating the risk of infringement of intellectual property rights are increasingly common in commercial agreements"); MICHAEL A. EPSTEIN ET AL., DRAFTING LICENSE AGREEMENTS § 2.01 (2013).

³⁰ Mike Masnick, *Cisco, Motorola, Netgear Team Up To Expose Wifi Patent Bully*, TECHDIRT, Oct. 9, 2012, *at* http://www.techdirt.com/blog/wireless/?company=innovatio. ³¹ Julie Samuels, *Apple Steps Into Lodsys Litigation*, ELECTRONIC FRONTIER FOUNDATION, June 10, 2011, *at* https://www.eff.org/deeplinks/2011/06/apple-stepslodsys-litigation.

³² See, e.g., Jeff John Roberts, Apple Scourge Lodsys Continues Patent Rampage Against Developers, Corporations, GIGAOM, May 22, 2012, at http://gigaom.com/2012/05/22/apple-scourge-lodsys-continues-patent-rampage-against-developers-corporations (noting that Lodsys continued to offer "licensing solutions" to small app makers even after Apple's intervention); Docket Entry No. 185, Innovatio IP Ventures, LLC vs. ABP Corp., No. 1:11-cv-01638 (N.D. Ill.) (denying as moot defendants' motion to stay under the customer suit exception because the instant had been consolidated with ten others).

the supply chain to step in and stem the tide of patent filings against their customers? Unbeknownst to many,³³ patent law already does.

Under the co-called "customer suit exception," courts can stay litigation filed against a customer until after the resolution of a later-filed declaratory judgment action initiated by the accused product's manufacturer. The doctrine recognizes that it is the manufacturer, not a purchaser or mere user of technology, who is the "true party in interest" when that technology stands accused of patent infringement. ³⁴ Unlike customers and end-users who frequently view patent suits as one-off affairs, manufacturers are often in a financial position to fight would-be nuisance suits to adjudication. ³⁵ Also, compared to customers, manufacturers have a relative advantage litigating patent suits because they generally have greater knowledge of the industry, the prior art, and the patented invention's value. ³⁶

Unfortunately, parties rarely invoke the doctrine and courts apply it, if at all, very narrowly. As a result, the customer suit exception has long existed in a state of relative disuse. Since the 1960s, the doctrine has been raised in fewer than seventy cases total, and has been applied in just nineteen.³⁷ The Federal Circuit has discussed the doctrine just five times in the last thirty year, and has affirmed its application only once.³⁸

³³ The doctrine is so obscure it has apparently never been the subject of a single law review article.

³⁴ Rates Tech., Inc. v. New York Tel. Co., 1995 WL 438954 (S.D.N.Y. July 25, 1995).

³⁵ See infra, Part II.A.

³⁶ See infra, Parts II.B-II.C.

³⁷ Customer Suit Exception Dataset (on file with the authors) [*Note: Cases could be cited in an Appendix, instead*]. Even this modest figure is inflated by numerous cases in which the exception was raised erroneously (or at least hopelessly). *See, e.g.*, Advanced Micro Devices, Inc. v. S3 Graphics Co., Ltd., No. No. 11–CV-965, 2011 WL 5402667, at *2 (D. Del. Nov. 8, 2011) (declining to stay a "nearly-completed ITC [customer] action in favor of a newly-filed district court [manufacturer] action"); Edizone, LLC v. Schering-Plough Healthcare Prods., Inc., No. No. 10–CV-855, 2011 WL 1559944 (D. Utah Apr. 25, 2011) (declining to apply the customer suit exception when the manufacturer was already a party in the first-filed action); AG Leader Tech., Inc. v. NTech Indus. Inc., 574 F. Supp. 2d 1011 (S.D. Iowa 2008) (declining to apply the exception when the manufacturer's suit was the first-filed suit); Gibson Guitar Corp. v. Wal-Mart Stores, Inc., No. 08-CV-0279, 2008 WL 3472181 (M.D. Tenn. Aug. 8, 2008) (declining to apply the exception when the manufacturer's suit was the first-filed suit).

³⁸ Katz v. Lear Siegler, Inc., 909 F.2d 1459 (Fed. Cir. 1990) (affirming application of the customer suit exception); Commonwealth Scientific & Indus. Research Org. v. Toshiba Am. Info. Sys. Inc., 297 F. App'x 970 (Fed. Cir. 2008) (holding that partially staying the first-filed action was not in the interest of efficiency); Kahn v. Gen. Motors

This article sheds new light on the rarely-used doctrine, explains why it is so rarely invoked and applied, and argues that courts should stay customer suits more frequently in order to promote litigation outcomes that reflect the value of asserted patents, not the cost of defense. Part I sets forth the doctrine underlying the customer suit exception and explains why parties so rarely raise it and courts so rarely apply it. Part II explains why it is advantageous for manufacturers, rather than purchasers or users, of allegedly infringing products to defend against patent suits. Finally, Part III proposes reforms to the customer suit exception that, if implemented, would permit manufacturers to take charge of suits filed against their legions of customers.

I. THE CUSTOMER SUIT EXCEPTION

Courts have inherent power to stay overlapping litigation for the sake of judicial economy.³⁹ In carrying out this power, courts generally permit the suit filed first in time to proceed and stay related suits that were subsequently filed.⁴⁰ Though the general practice of staying duplicative litigation obviously advances policy goals like efficiency and comity,⁴¹

Corp., 889 F.2d 1078 (Fed. Cir. 1989) (reversing application of the customer suit exception because the second-filed action would not resolve all issues between the parties); *see also* Spread Spectrum Screening LLC v. Eastman Kodak Co., 657 F.3d 1349 (Fed. Cir. 2011) (holding that an order to stay was not an appealable interlocutory order, in part, because the district court did not apply the customer suit exception); Tegic Commc'n Corp. v. Bd. of Regents of Univ. of Tex. Sys., 458 F.3d 1335, 1343 (Fed. Cir. 2006) (holding that, on the facts of the case, that the customer suit exception "does not override the immunity provided by the Eleventh Amendment").

³⁹ Landis v. N. Am. Co., 299 U.S. 248, 256 (1936) ("[T]he power to stay proceedings is incidental to the power inherent in every court to control the disposition of the causes on its docket with economy of time and effort for itself, for counsel, and for litigant.").

⁴⁰ Great N. Ry. Co. v. Nat'l R.R. Adjustment Bd., First Div., 422 F.2d 1187, 1193 (7th Cir. 1970) (noting that this will avoid unnecessarily burdening courts and possible embarrassment from conflicting results). The first-filed doctrine was established by the Supreme Court in *Smith v. McIver*, and has been flexibly applied to promote judicial economy and the interests of justice through avoidance of repeated or vexatious litigation. Smith v. McIver, 22 U.S. 532 (1824) (noting concurrent suits in law and equity courts should be resolved by the court with possession of the first action).

⁴¹ See Codex Corp. v. Milgo Elec. Corp., 553 F.2d 735, 737-38 (1st Cir. 1977) ("At the root of the preference for a manufacturer's declaratory judgment action is the recognition that, in reality, the manufacturer is the true defendant in the customer suit. In spite of [Plaintiff's] vigorous protests to the contrary, it is a simple fact of life that a manufacturer must protect its customers, either as a matter of contract, or good business, or in order to avoid the damaging impact of an adverse ruling against its products.").

courts have struggled to justify the first-filed rule itself on policy grounds⁴² and, accordingly, have recognized exceptions.⁴³

One, applicable only in patent litigation, is the so-called "customer suit exception." When the technology and parties involved in a patent suit satisfy certain criteria, the customer suit exception allows a later-filed declaratory judgment action brought by the manufacturer of an accused product to take "precedence over a [earlier-filed] suit by the patent owner against customers of the manufacturer." In other words, courts applying this exception stay earlier-filed patent cases against customers pending the resolution of the manufacturer's later-filed declaratory judgment action against the patentholder. 45

There appears to be a general attitude among the patent bar that the Second Circuit is most uncharitable to patents. Consequently, a party desiring to have a patent declared invalid will probably seek to sue here, while a party suing to enforce its patent in an infringement suit will probably bring it elsewhere, even to the point of suing a customer of the infringer instead of the direct infringer. . . . I believe that a litigant, whether a swift first or as a prompt retaliator, is open to the charge of forum shopping wherever he chooses a forum with slight connection to the factual circumstances surrounding his suit.

Rayco Mfg. Co. v. Chicopee Mfg. Corp., 148 F. Supp. 588, 592-93 (S.D.N.Y. 1957) (transferring the earlier filed case in Southern District of New York to later filed case in New Jersey on ground that "the business activities of all the parties of all the parties are more closely associated with New Jersey").

⁴² See Codex, 553 F.2d at 737 ("While the first-filed rule may ordinarily be a prudent one, it is so only because it is sometimes more important that there be a rule than that the rule be particularly sound.").

⁴³ Other exceptions to the first-filed rule arise when: the first-filed action is an anticipatory declaratory judgment suit, *see*, *e.g.*, Lawrence D. Graham, *The Personal Jurisdiction Effect of Notifications of Infringement*, 78 J. PAT. & TRADEMARK OFF. Soc'y 858, 868-69 (1996), or the first-filed action was initiated for forum shopping purposes or otherwise in bad faith, *see* Maximum Human Performance, Inc. v. Dymatize Enters., Inc., No. 09-CV-235, 2009 WL 2778104 (D.N.J. Aug. 27, 2009).

⁴⁴ Katz v. Lear Siegler, Inc., 909 F.2d 1459, 1464 (Fed. Cir. 1990). Courts also make an exception to this general rule when the forum of a later-filed action is more convenient or just. *See* Horton Archery, LLC v. Am. Hunting Innovations, LLC, No. 09-CV-1604, 2010 WL 395572, at *5 (N.D. Ohio Jan. 27, 2010) ("The Federal Circuit has recognized two exceptions to the first-to-file rule, the customer-suit exception and a discretionary determination based on the convenience and suitability of competing forums.").

⁴⁵ Spread Spectrum Screening LLC v. Eastman Kodak Co., 657 F.3d 1349, 1357 (Fed. Cir. 2011). Often, the manufacturer's declaratory judgment action and the patentholder's infringement action are filed in separate forums, and courts have long recognized that the "customer-suit" cases frequently involve "forum shopping" by both the patent holder and the manufacturer:

In its first few decades of existence, 46 courts applied the customer suit exception relatively liberally, justifying its application on efficiency grounds by reference to res judicata and claim preclusion. 47 Resolution of a case between the patentee and manufacturer of the accused device is more likely to resolve the question of infringement definitively because, after a final resolution of that case, res judicata will generally bar future suits between the patentee and the manufacturer *or its customers*. 48 By contrast, a final judgment in a patent suit against one customer does not bar suits against other customers or the manufacturer. 49

Courts also stressed during this time that the manufacturer of the accused technology, not customers who merely purchased or used it, is "the true defendant in a customer suit" since it "must protect its customers, either as a matter of contract, or good business, in order to avoid the damaging impact of an adverse ruling against its products." ⁵⁰ Accordingly, courts reasoned, it makes sense as a matter of policy to give

⁴⁶ The modern customer suit exception—i.e., staying a first-filed customer suit in favor of a later-filed manufacturer suit—first appeared in the 1960s. *See* Delamere Co. v. Taylor-Bell Co., 199 F. Supp. 55, 58 (S.D.N.Y. 1961) (staying an earlier-filed customer action in favor of a suit filed by the manufacturer twenty days later); William Gluckin & Co. v. Int'l Playtex Corp., 407 F.2d 177, 179 (2d Cir. 1969) (affirming a preliminary injunction staying a first-filed customer suit in favor of a manufacturer suit against the patentee). The doctrine has roots in even earlier cases expressing a preference for manufacturer suits. *See*, *e.g.*, Maytag Co. v. Meadows Mfg. Co., 35 F.2d 403 (7th Cir. 1929) (explaining that when patent suits are brought against both the manufacturer of the allegedly infringing goods and the manufacturer's customers, the customer suits should generally be stayed pending an outcome in the manufacturer's suit).

⁴⁷ Delamere, 199 F. Supp. at 57 (noting that a decision involving the manufacturer "would settle the issue finally and prevent further suits"). In addition to res judicata and claim preclusion, the patent law doctrine of "exhaustion" generally prevents a patentee from licensing its rights at more than one level of the supply chain. See Quanta Computer, Inc. v. LG Electronics, Inc., 553 U.S. 617, 638 (2008) (holding that the authorized sale of an article substantially embodying a patent exhausts the patent holder's rights and prevents the patent holder from invoking the patent law to control post sale use of the article).

⁴⁸ *Id*.

⁴⁹ *Id.* (noting that a ruling in the "customer suit would not be res judicata against allegedly infringing manufacturer, and a decree against the patent would still leave the patent owner free to sue other customers").

⁵⁰ Codex Corp. v. Milgo Electronic Corp., 553 F.2d 735, 737-738 (1st Cir. 1977); *see also* Delamere Co. v. Taylor-Bell Co., 199 F. Supp. 55, 57 (S.D.N.Y. 1961) (noting that the manufacturer is the "party most interested" in a patent suit against one of its customers).

manufacturers, whose incentives in litigation might diverge from those of its customers, the reins of defense against claims of infringement.

However, over time (and particularly in the last twenty years) jurisprudence related to the exception has become increasingly restrictive. For one, under current law, application of the customer suit exception turns solely on an analysis of judicial economy. As interpreted by the Federal Circuit, "the guiding principles in the customer suit exception cases are efficiency and judicial economy," not the consideration of other factors concerning the customers' and manufacturers' relative suitability as defendants.⁵¹

Further, current case law recognizes an exceptionally narrow set of circumstances under which applying the customer suit exception would conserve judicial resources. Federal Circuit precedent sets forth three factors to determine the exception's applicability: (1) whether customer defendants are "mere resellers" of the manufacturer's product; (2) whether the customers agree to be bound by any decision in the manufacturer's case; and (3) whether the manufacturer is the sole source of the infringing products. ⁵² By design, these factors collectively limit the customer suit exception to cases in which resolution of one manufacturer declaratory judgment action would completely resolve all pre-existing customer suits. ⁵³

Together these factors also all but render the customer suit exception a dead letter. The first factor excludes cases in which customer defendants incorporate the manufacturer's product into a larger device—for example, as in *Apeldyn v. Sony*, when customer defendants install the manufacturer's allegedly infringing LCD panels into their own brand name consumer electronics.⁵⁴ The third excludes cases in which customer defendants purchased from more than a single manufacturer—for example, in *Emerson Electric v. Black & Decker*, where the customer defendant

⁵¹ Tegic Commc'n Corp. v. Bd. Of Regents of Univ. of Tex. Sys., 458 F.3d 1335, 1343 (Fed. Cir. 2006).

⁵² *Id*.

⁵³ Katz v. Lear Siegler, Inc., 909 F.2d 1459, 1463 (Fed. Cir. 1990) ("[T]he primary question is whether the issues and parties are such that the disposition of one case would be dispositive of the other . . .").

⁵⁴ Apeldyn Corp. v. Sony Corp., 852 F. Supp. 2d 568, 576 (D. Del. 2012) (declining to apply the customer suit exception because Sony is "more than a mere reseller of goods").

purchased allegedly infringing workbenches for resale from two different suppliers.⁵⁵

In today's high tech economy where complex devices like computers and consumer electronics top the market, it is hard to imagine many cases that would satisfy both requirements. Due to increasing complexity and ever-shorter product lifecycles, few brand-name companies possess the manpower and expertise to manufacturer their own products. As a result, high-tech products—the dominant source of both issued patents and patent suits —are overwhelmingly constructed (at least in part) using discrete components sourced from multiple manufacturers.

⁵⁵ Emerson Elec. Co. v. Black & Decker Mfg. Co., 606 F.2d 234, 236 (8th Cir. 1979) (declining to apply the customer suit exception to stay a customer suit against Sears, in favor of a manufacturer suit against Emerson, because Sears previously purchases allegedly infringing workbenches from another supplier).

⁵⁶ Gijsbert van Lient, Subcontracting in Electronics: From Contract Manufacturers to Providers of Electronic Manufacturing Services (EMS), at *6 (Int'l Labor Office Working Paper No. 249, 2007), available at http://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_161177.pdf (noting that brand-name companies can no longer manufacture their products on their own because of "the intensely competitive nature of the electronics industry, the ever increasing complexity and sophistication of electronic products . . .and the shorter product lifecycles").

⁵⁷ High-tech patents have dominated the patent landscape for more than two decades. See John R. Allison & Mark A. Lemley, The Growing Complexity of the United States Patent System, 82 B.U. L. REV. 77, 93 (2002) (finding that patents falling within the categories "computer-related," "semiconductors," "electronics," "software," "communications-related" collectively account for about 53% of all patents issued during the 1990s). By one estimate, one in six active U.S. patents relates to smartphone technology. Daniel O'Connor, One in Six Active U.S. Patents Pertain to the Smartphone, DISRUPTIVE COMPETITION PROJECT, Oct. 17, 2012, at http://www.projectdisco.org/intellectual-property/one-in-six-active-u-s-patents-pertain-to-the-smartphone/. Not surprisingly, high-tech patents are also the dominant source of patent suits. See Love, supra note 11, at *37 (finding that about 65% of patents litigated by NPEs are high-tech patents, as are about 42% of patents litigated by product-producing companies); James Bessen et al., The Private and Social Costs of Patent Trolls, at *12, Tbl. 2 (Boston University School of Law Working Paper No. 11-45, Sep. 19, 2011) (finding that 62% of patents litigated by NPEs between 1990 and 2010 were "software patents" and 75% covered "computer and communications technology.").

⁵⁸ Today, the component parts of brand-name products are generally sourced from multiple manufacturers. For example, Apple's iPad 2 includes components sources from at least ten vendors. Simon Foxman, 10 Public Companies That Have Parts In The New iPad, **BUSINESS** INSIDER, March 16, 2012, available http://www.businessinsider.com/these-are-the-companies-that-made-parts-for-the-newipad-2012-3?op=1. Similarly, Samsung's Galaxy Tab includes components sourced from at least nine vendors. Allan Yogasingam, Inside the Samsung Galaxy Tab: Taking On The iPad, EE TIMES, Dec. 13, 2010, available

II. MANUFACTURERS ARE THE "TRUE PARTY IN INTEREST"

The Federal Circuit's current, rigid stance on the doctrine both overstates the costs and understates the benefits of applying the customer suit exception more frequently. First, on the cost side of the ledger, existing case law takes an unnecessarily myopic view of judicial economy by considering only the doctrine's impact on already-filed suits. Broadly viewed, however, revival of the customer suit exception promises to substantially reduce court dockets by discouraging future patent suits filed for nuisance value. Second, on the benefit side, current case law fails to take into account other socially-desirable results of nudging patent defense up the supply chain. In particular, compared to their downstream customers, manufacturers are better suited to both invalidate erroneously issued patents and properly value valid ones.

A. Manufacturers Have Incentive to Fight Nuisance Suits

The Federal Circuit's present test for weighing the customer suit exception's impact on judicial economy fails to strike a socially optimal balance because it fails to consider customers' and manufacturers' relative incentives to litigate infringement claims. Compared to individual customers, manufacturers have more reason to litigate patent suits, even nuisance suits, to a final adjudication. Accordingly, liberal application of the customer suit exception would discourage weak patent suits and, thus, promises to conserve judicial economy.

Customer defendants rationally view patent litigation through the prism of their own costs and benefits, without regard to the best interests of their competitors. Absent coordination, ⁵⁹ customers faced with infringement

http://www.eetimes.com/design/communications-design/4211447/Inside-the-Samsung-Galaxy-Tab--Taking-on-the-iPad-semiconductor?pageNumber=0. Manufacturers likewise generally work for multiple brand-name companies. *See* van Lient, *supra* note 56, at 10 (noting, for example, that "Hon Hai Foxconn counts among its clients: Apple, H-P, Intel, Dell, Lenovo, Nokia and Motorola"). Third-party manufacturers are presently active in the production of communications devices (e.g., mobile phones and networking equipment), personal and business computers (e.g., data storage devices), and consumer electronics (e.g., gaming systems). *Id.* at 11.

⁵⁹ Co-defendants are permitted to share information and litigation expenses, but are prohibited from coordinating with respect to settlement negotiations. *See* Mark A. Lemley, *Intellectual Property Rights and Standard Setting Organizations*, 90 CAL. L.

allegations are incentivized to settle for as little as possible and point the patentee in the direction of its competition, whom it has a strong incentive to see sued and forced to pay as much or more in costs and royalties. ⁶⁰ Manufacturer defendants, on the other hand, view patent suits with a larger constituency in mind: its entire population of customers, including all current *and* future customers. Thus, manufacturers that sell to a widerange of customers and that plan to continue developing products in the field of the asserted patent, have a vested interest in resolving patent disputes in a forward-looking manner to (1) protect *all* its customers and (2) maximize its future freedom of operation and its profitability. As such, a manufacturer is less likely than any individual customer to let the expected legal cost associated with a single patent case drive its decision to fight or license the asserted patent.

REV. 1889, 1940 (2002); Jones Knitting Corp. v. Morgan, 361 F.2d 451, 459 (3d Cir. 1966). Efficiency gains from information and expense sharing are often offset by other inefficiencies associated with large suits, including the difficulties inherent in coordinating multiple parties and lawyers. See, e.g., Michael M. Markman, Getting Ahead in the Changing Patent Litigation Marketplace: Thinking About a New Toolkit for Pre-Suit Coordination of Patent Joint Defense Efforts, BLOOMBERG LAW REPORTS, vol. 5, no. 28 (2011), available at http://www.cov.com/files/Publication/2ad48d32-3210-4cd9-9b73-d6cdb2c72948/Presentation/PublicationAttachment/2d69f7d0-0cab-49a4-ad9ee3f7759828e8/bloomberg%20law markman article7.7.11.pdf ("It can be difficult to create a frictionless approach to collaboration that also limits transaction costs. 'Herding the cats' can be time consuming and inefficient "). In addition to our own anecdotal experiences, the market clearly supports this hypothesis: NPEs overwhelmingly choose to sue infringers in large, multi-defendant cases, despite the fact that this strategy enables coordination among defendants. See Tracie L. Bryant, The America Invents Act: Slaying Trolls, Limiting Joinder, 25 HARV. J.L. & TECH. 687, 688-89 (2012) ("Unlike productproducing companies, patent trolls commonly employ a litigation strategy of initiating infringement suits against large numbers of unrelated, geographically diverse defendants in venues friendly to patent plaintiffs "); Allison et al., supra note 12, at 700

⁶⁰ See Carl Shapiro, Patent Reform: Aligning Reward and Contribution, in 8 INNOVATION POLICY AND THE ECONOMY 111, 119 (Adam B. Jaffe et al. eds., 2007); Mark A. Lemley & Carl Shapiro, Probabilistic Patents, J. ECON. PERSP., Spring 2005, at 88; Joseph Farrell & Robert P. Merges, Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help, 19 BERKELEY TECH. L.J. 943, 958 (2004) ("[A] challenger bears the cost of litigation but its rivals and downstream buyers will capture almost all the benefits of successful challenge").

("[D]efendants in multiparty patent cases should be more likely to settle out and leave their competitors holding the bag, particularly because while defendants can share

information, they cannot act jointly in deciding to settle.").

i. Customers' Incentives to Litigate

NPEs prefer customer defendants over manufacturers because customer defendants are generally one-time players⁶¹ with little incentive to help non-parties or stand up to litigation tactics.⁶² Independent of the merits of a case, most customer defendants will take whatever option results in less cost—including a license priced less than the expected cost of litigation.⁶³

From the standpoint of a one-time-player customer defendant, a single patent lawsuit bears an expected (negative) value of:

npes/pursued/ (last accessed Feb. 19, 2013).

⁶¹ Innovatio, for example, targeted many companies that had never before been accused of patent infringement-for example, eleven separate Chicago-area Marriot hotel franchises. Innovatio IP Ventures, LLC v. JW Marriot Chicago, No. 1:11-cv-06478 (N.D. Ill.). Lodsys has done the same, accusing numerous first-time alleged infringers like travel websites Makemytrip.com, Inc. and Vegas.com LLC, used car seller Drivetime Automotive Group, Inc., and brand manager ForeSee Results, Inc. Lodsys Group, LLC v. MakeMyTrip.com, Inc., No. 2:12-cv-00749 (E.D. Tex.); Lodsys, LLC v. Adidas America, Inc., No. 2:11-cv-00283 (E.D. Tex.); Lodsys, LLC v. DriveTime Automotive Grp., Inc., No. 2:11-cv-00309 (E.D. Tex). To be sure, this characterization doesn't apply to all companies who are, strictly speaking, customers of some other supplier. For example, in the ongoing "smartphone patent wars" between Apple and Android phone makers, defendants Samsung, HTC, and Motorola Mobility are accused of infringing patents that allegedly cover various features of the Android operating system, which is supplied by Google. See, e.g., Charles Arthur, Apple, Samsung, Google and the Smartphone Patent Wars - Everything You Need to Know, GUARDIAN, 22. 2012, available http://www.guardian.co.uk/technology/2012/oct/22/smartphone-patent-wars-explained. All three phone makers are sued for patent infringement more than a dozen times a year. PatentFreedom, Most Pursued Companies, at https://www.patentfreedom.com/about-

⁶² Kamprath, *supra* note 27, at 27; Marc Galanter, *Why the "Haves" Come Out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC'Y REV. 95, 125 (1974).

⁶³ Reiko Aoki & Jin-Li Hu, *Allocation of Legal Costs and Patent Litigation: A Cooperative Game Approach*, at *10 (Univ. of Auckland Dep't of Econ. Working Paper Series, 1999), *available at* http://128.118.178.162/eps/io/papers/9612/9612001.pdf (noting that defendants are willing to pay plaintiffs more to settle suits as expected litigation costs increase); Kamprath, *supra* note 27, at 25 ("With each early settlement, the patent troll maximizes his profit and minimizes his own litigation costs."). Indeed, as courts have recognized, license fees "negotiated in the face of a threat of high litigation costs may be strongly influenced by a desire to avoid full litigation." Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1164 n.11 (6th Cir. 19780) (quoting Rude v. Westcott, 130 U.S. 152, 164 (1889)); *see also* Richard L. Stroup, *Patentee's Monetary Recovery from an Infringer*, 59 J. PAT. OFF. Soc'y 362, 384 (1977).

$$E = (p*(D+C)) - (1-p)(C))$$

where "E" is the expected value (loss) associated with the case, "p" is the probability of the plaintiff successfully enforcing its patent, "D" is the expected damages amount, and "C" is the cost of defense.

Additionally, for any defendant, it is rational to settle a case for an amount "S" that is less than the expected value of defense:

Combining both equations, it is straightforward to show that a customer defendant will rationally settle for less than the cost of defense, even when faced with an extremely "weak" patent with virtually no chance of ultimate success (e.g., the patent is almost certainly invalid and/or not infringed). ⁶⁴ In short, even if $p \approx 0$ and therefore $E \approx C$,

$$E = p*(D+C) - (1-p)(C)$$

$$\lim_{p \to 0} E = 0*(D+C) - (1-0)(C)$$

How Newegg Crushed the "Shopping Cart" Patent and Saved Online Retail, supra note 21 ("Newegg is unique in its willingness to take on patent troll cases and fight them through trial."). As indirect evidence of both propositions, consider Allison, et al.'s finding that, between 2000 and 2010, NPEs asserted 106 patents in 8 or more cases each—settling almost 90% of these cases and, when forced to litigate to a judgment, losing more than 90% of the time. Allison et al., supra note 12, at 689.

⁶⁴ This analysis also assumes that a patentee enforcing a weak patent will not be forced to pay a successful defendant's attorneys fees or some other amount as a sanction for filing a frivolous case. Though certainly not unheard of, sanctions against patentees are exceedingly rare. See supra note 24. It also assumes that customer defendants view patent infringement allegations as a rare occurrence and, thus, do not benefit from fighting back simply to build a reputation as a "tough mark." This assumption holds true for the customers defendants we have in mind—i.e., the coffee shops sued by Innovatio and small offices sued by Project Paperless-though of course it will not hold true for "customer" defendants. See supra note 61. Parties that face NPE claims on a regular basis may benefit from routinely defending suits (rather than settling them) because precommitting to litigate may deter other patentees looking to file suit against targets amenable to quick settlements. Companies like Twitter and Newegg have publicly vowed to fight NPE suits, regardless of the expense involved. See, e.g., Ben Lee, Twitter: It's time for patent trolls to bear the costs of frivolous lawsuits, GIGAOM, Oct. 8, 2012, at http://gigaom.com/2012/10/08/twitter-time-for-trolls-to-pay-full-price-for-patentmischief/ ("[W]e [Twitter] have never agreed to pay to settle a patent suit."); Joe Mullin, How Newegg Crushed the "Shopping Cart" Patent and Saved Online Retail, supra note

a defendant will rationally settle for any amount less than the expected cost of defense. 65

$$S < E = C$$

A customer defendant, thus, will generally agree to pay royalties even when the patent-in-suit has virtually no substantive value. Looking to statistics on the cost of defense in patent suits, customer defendants will find it rational to pay a pretty penny, too. According to the AIPLA, the median cost of a medium-sized patent litigation is approximately six million dollars per party, double the cost reported 2009 and four times the cost reported in 2001.

Thus, because customers will generally find it rational to settle with NPEs holding even incredibly weak patents—and often to settle for six figure amounts—NPEs will find it profitable to sue as many judgment-proof customers as possible. Statistics bear this out. NPEs in the business of purchasing patents for assertion sue almost nineteen defendants per patent they litigate. Nuisance-value NPEs sue even more broadly. Innovatio, for example, has sued over 200 defendants in 26 suits, once accusing 80 companies in a single complaint. The end result is a flood of litigation that taxes the federal court system.

⁶⁵ See Sudarshan, supra note 25, at 161-166 (2008).

⁶⁶ See Jason Rantanen, Slaying the Troll: Litigation as an Effective Strategy Against Patent Threats, 23 SANTA CLARA COMPUTER & HIGH TECH. L. J. 159, 160 (2006); Joseph Farrell & Carl Shapiro, How Strong Are Weak Patents?, 98 AM. ECON. REV. 1347 (2008) (using a game theoretic model to show how weak patents can be used to extract royalties that exceed their social value); Jay P. Kesan & Andres A. Gallo, Why "Bad" Patents Survive in the Market and How Should We Change? The Private and Social Costs of Patents, 55 EMORY L.J. 61, 77-95 (2006).

⁶⁷ See supra note 3. When the amount at stake in a patent suit is less than \$1 million, litigation costs will generally exceed the patentee's possible recover. AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF THE ECONOMIC SURVEY 2011 at I-155-56. Also, more than half of all patent litigation costs are incurred during discovery, before a decision on the merits can be rendered. *Id.*

⁶⁸ Love, *supra* note 11, at 29, 33 (finding that, overall, NPEs accuse an average of twelve infringers per litigated patent, and that NPEs who purchase patents for litigation accuse almost 19 infringers per patent on average).

⁶⁹ Results tabulated using LexMachina.com's search functionality on February 19, 2013.

ii. Manufacturers' Incentives

Manufacturers are in a different economic position. Compared to their customers, manufacturers are more likely to take a forward-looking view of patent litigation. In particular, when deciding whether to litigate or settle, manufacturers rationally consider their current *and* future product offerings, customer populations, and litigation budgets. In short, litigation is never a one-time affair because the same patentee, or another, may accuse new products in the future.

As a result, litigation offers unique benefits to a manufacturing defendant. By defending a suit, the manufacture may be able to nail down the outer boundaries of the asserted patent through the claim construction process. Doing so may provide the manufacturer with a strong argument for non-infringement in the present case or, alternatively, a clear path to "design around" the patent in future products.⁷⁰

In addition, a manufacturer may choose to defend a case simply to send a message to future NPEs. Manufacturers who anticipate similar suits in the future may be concerned that a quick settlement in the present case will encourage other NPEs watching the lawsuit to sue the manufacturer or its customer.⁷¹

Together, these factors reduce a patentee's ability to drive a manufacturer to settle through litigation costs alone. In other words, manufacturers will generally perceive a certain positive value associated with litigating. This transforms the above formula in the following manner:

$$E = p*(D+C) - (1-p)*C*(1-(1/L))$$

⁷⁰ Rantanen, *supra* note 66, at 161.

⁷¹ Id. (there are costs to the infringer of not litigating – other patent trolls may take the willingness to take a license to the patent "as an invitation to feast."). Twitter has publicly refused to settle with patent trolls. Lee, supra note 64 (reporting that Twitter receives many baseless patent threats and "our policy is to fight them with all our might we have never agreed to pay to settle a patent suit"). Newegg also refuses to settle with patent rolls, recently winning on an appeal that rendered Soverain shopping cart patents invalid. Jon Mullin, How Newegg Crushed the "Shopping Cart" Patent and Saved Online Retail, ARS TECHNICA, Jan. 27, 2013, http://arstechnica.com/tech-policy/2013/01/how-newegg-crushed-the-shopping-cartpatent-and-saved-online-retail/.

where L is the manufacturer's perceived litigation "discount percentage" – i.e., the ratio between legal dollars spent in *this* case and expected *future* savings that would flow from a victory against the patentee on the merits (e.g., 1:2 or 0.5).⁷²

Because of manufacturers' forward-looking view of litigation, they will often have sufficient incentive to litigate even exceptionally weak cases. Even when $p \approx 0$, E is a factor of C *and* L:

$$E = p*(D+C) - (1-p)(C)*(1-(1/L))$$

$$\lim_{p \to 0} E = 0*(D+C) - (1-0)(C)*(1-(1/L))$$

$$= C*(1-(1/L))$$

Thus, when 0 < L < 1, the manufacturer will have an incentive to bear the cost of defense and litigate the case on the merits. Even when L > 1, the manufacturer will be less susceptible than a customer to litigation cost hold-up. *Any* forward-looking benefit the manufacturer sees to litigation—even a rather small one—will reduce the amount for which the manufacturer is willing to settle.

In short, compared to its customers, a manufacturer has considerably more incentive to mount a defense against allegations of patent infringement, especially when the patent-in-suit is exceptionally weak. By permitting patent suits against customers to proceed unimpeded, rather than permitting manufacturers to step in and litigate on behalf of their disinterested customers, current case law actually encourages nuisance suits. Without a strong customer suit exception, strategic strike suit filers have little to fear if they unexpectedly file a large number of suits against customer defendants. Without forewarning, manufacturers cannot beat patentees to the courthouse.⁷³ As a result, manufacturers are left waiting

⁷² To be clear, this is a grossly oversimplified equation. An infringer may still be able to cultivate a reputation as a tough litigator, even if it loses from time to time. Likewise, an accused infringer could lose on the merits of a case but nonetheless cabin the patentee into a particularly narrow claim construction that is easy to avoid in the future.

⁷³ And some forewarning still isn't enough to support declaratory judgment jurisdiction. There must be "sufficient immediacy and reality to warrant the issuance of a declaratory judgment." MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 127 (2007) (holding a licensee is not required to terminate or breach a license agreement before seeking a declaratory judgment of patent invalidity).

in line to litigate, powerlessly watching their customers settle what appear to be spurious claims.

If courts routinely stayed customer suits to permit willing manufacturers to litigate first, nuisance suits would instead be discouraged. At a minimum, strike suit filers would have to strategically target the customers of manufacturers who lacked the resources or foresight to litigate on behalf of their customers. And, in the long term, even this strategy might prove infeasible as customers increasingly purchased from manufacturers who proved willing to litigate. In short, as more manufacturers become willing to litigate, there are fewer targets for nuisance suits and those targets that remain are less appealing.

Thus, though a more liberal application of the customer suit exception may increase the number of suits on federal court dockets in the short term, there is good reason to believe it would lead to fewer nuisance suits in the long term.

B. Manufacturers Are Better Positioned To Defend Infringement Claims on the Merits

In addition to a myopic view of the customer suit exception's impact on judicial economy, Federal Circuit precedent also fails to properly weigh—indeed, to give weight to at all—other benefits of permitting manufacturers to defend patent suits. One benefit is a manufacturer's greater technical capacity and, thus, enhanced ability to vigorously litigate the merits of a patent case.

As the entity actually developing products in the field of the asserted patent, the manufacturer is the company best positioned to litigate the merits of a case enforcing that patent. Using in-house knowledge of the accused technology, a manufacturer can generate non-infringement arguments and identify "design around" options. Likewise, relying on employees who have worked in the field of the invention for a substantial period of time, a manufacture is best able to identify potential prior art.

Consider a customer defendant and a manufacturer defendant who have similar incentives to litigate a non-frivolous case (i.e., p > 0) without regard to the case's impact on future suit (i.e., when the manufacturer's L is very large).

$$E_{C} = p^{*}(D+C) - (1-p)^{*}C$$

$$E_{M} = p^{*}(D+C) - (1-p)^{*}C^{*}(1-(1/L))$$

$$\lim_{L \to \infty} E_{M} = p^{*}(D+C) - (1-p)^{*}C^{*}(1-(1/\infty))$$

$$= p^{*}(D+C) - (1-p)^{*}C^{*}(1-0)$$

$$= p^{*}(D+C) - (1-p)^{*}C$$

$$= E_{C}$$

In this scenario, S is a factor of p, D, and C for customers and manufacturers.

$$S < E_M = E_C = p*(D+C) - (1-p)*C$$

Assuming that the cost of defense is relatively similar for both parties,⁷⁴ the financial transfer that will result from the case is driven by the patentee's likelihood of success and potential damages award.

Social welfare is maximized—or, rather, deadweight loss resulting from the patent system is minimized—when litigation accurately values patented inventions.⁷⁵ Thus, it is in society's best interest for infringement

⁷⁴ Litigation costs in civil suits are highly correlated with the amount at stake in a suit, not with the type of defendant facing those stakes. *See* Emery G. Lee & Thomas E. Willging, *Defining the Problem of Cost in Federal Civil Litigation*, 60 DUKE L.J. 765, 772 (2010) ("Our findings indicate that the monetary stakes in the litigation represent the primary cost driver in most civil litigation"). Patent suits are no exception. *See* AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF THE ECONOMIC SURVEY 2011, at I-155-56 (reporting mean litigation costs as a factor of the amount at stake in the case).

⁷⁵ See Carl Shapiro, *Patent Reform: Aligning Reward and Contribution*, in 8 Innovation Policy and the Economy 111, 111 (Adam B. Jaffe et al. eds., 2008), *available at* http://www.nber.org/chapters/c10778.pdf ("[E]xcessive patentee rewards are socially costly as they raise the deadweight loss associated with the patent system and discourage innovation by others."); Marina Lao, *Unilateral Refusals to Sell or License Intellectual Property and the Antitrust Duty to Deal*, 9 CORNELL J.L. & PUB. POL'Y 193, 214 (1999) ("If the system overcompensates the inventor, the protection may actually impede innovation by denying competitors (and users) access to needed information and basic inventions that could serve as building blocks for further progress. In short, because competition also plays a role in fostering innovation, overprotection of a patent holder from competition may perversely result in less, rather than more, innovation.").

defense to be handled by the party best suited to test the patent-in-suit's validity, scope, and value.⁷⁶

As between a similarly situated customer and manufacturer, it is virtually always the manufacturer who is best suited to vigorously litigate the case in a manner that challenges the patent's validity and delineates its claim scope. The classic target for a patent troll is a company outside the technology industry who merely purchases the accused technology. Unlike the manufacturer, these companies have no expertise in the accused technology. They were not involved in the design, development or manufacture of the accused technology. They have no understanding of the field of the patent and no knowledge of the prior art to the patent. When the patent relates to a component within a larger system, customers may not even be aware of the accused technology or understand what role it plays in the overall system.

By contrast, manufacturers are well situated to litigate the merits of a patent suit because they possess in-house knowledge and expertise relevant to the patent-in-suit's validity. It was the manufacturer's employees, after all, who designed, developed, and initially sold the product or component embodying the accused technology. These individuals meet or exceed the qualifications of a "person having of ordinary skill in the art" and, thus, can provide ready insight into a patent's vulnerabilities.⁷⁷

⁷⁶ Society's interest is surprisingly strong. A large percentage of patented inventions are later deemed unworthy of protection, and a large percentage of patent allegations are later proven to be unwarranted. Patent claims adjudicated on the merits are invalidated about 55 percent of the time. Benjamin Hershkowitz, *What Are My Chances? From Idea Through Litigation*, FIND LAW, Oct. 16, 2003, *available at* http://immagic.com/eLibrary/ARCHIVES/GENERAL/GENREF/F031016H.pdf. Moreover, patentees prove infringement only about 40 percent of the time their

Moreover, patentees prove infringement only about 40 percent of the time their allegations are tested in court. *Id.* Overall, only about 30 percent of patent claims litigated to a decision on the merits are found both valid and infringed. *Id.*

⁷⁷ In many contexts, patent law asks courts and juries to view the patented invention and other technology from the perspective of a "person having ordinary skill in the art." *See* Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 3 (1966) (obviousness: "[T]he test of obviousness . . . [is] whether the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains"); Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (claim construction: "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention"); 35 U.S.C. § 112 (enablement: requiring that a patent's specification "contain a written description of the invention . . . in such full, clear,

Specifically, a manufacturer's in-house knowledgebase is a valuable source of prior art and expert analysis. Manufacturers are generally familiar with the history of their own product offerings as well as the history of the industry writ large. As a result, manufacturers frequently can locate prior art that even the most sophisticated third-party prior art searchers cannot. For example, manufacturers generally have historical records of products sold or offered for sale prior to the patent-in-suit's priority date, as well as access to engineers' notebooks or other materials that may establish a conception date for the accused technology that antedates the patent's. In addition, manufacturers have greater exposure to other sources of non-traditional prior art like demonstrations at trade shows and presentations at academic or industry conferences.⁷⁸

Manufacturers' in-house expertise is also helpful in establishing non-infringement. Employees of the manufacturer are intimately familiar with the accused technology and have ready access to detailed design specifications. ⁷⁹ Customer defendants, on the other hand, generally gain access to this information, if at all, indirectly through expensive third-party expert witnesses.

Without employees of their own who are knowledgeable about the accused technology, customer defendants must look elsewhere for technical information that manufacturers have at their fingertips. The highly confidential nature of technical information regarding the accused product further complicates this process. Manufacturers are reluctant to entrust confidential design information with *any* third-party, even their

concise, and exact terms as to enable any person skilled in the art \dots to make and use the same \dots ").

⁷⁸ See, e.g., In re Klopfenstein, 380 F.3d 1345 (Fed. Cir. 2004) (invalidating a patent in light of prior art briefly displayed at a conference).

⁷⁹ Cf. Tore Markeset & Uday Kumar, Design and Development of Product Support and Maintenance Concepts for Industrial Systems, JOURNAL OF QUALITY IN MAINTENANCE ENGINEERING, Vol. 9 Iss. 4, at 376 (2003) ("The specification process is often a result of interaction between the manufacturer and the industrial customer, while the design specification implementation process is the responsibility of the manufacturer.").

customers, for fear of jeopardizing their trade secret rights ⁸⁰ and of attracting additional patent suits ⁸¹ should that information become public.

Confidentiality concerns also narrow the pool of experts available to work with customer defendants. Manufacturers, for example, will almost certainly refuse to share confidential information with technical personnel presently working in the industry—i.e., for a competitor—thereby excluding most industry specialists from serving as expert witnesses. Likewise, if it is not clear that the manufacturer will agree to indemnify, customers may be reluctant to turn over the reins of preparing expert reports and testimony to the manufacturer for fear that the manufacturer's employees will be loval first and foremost to their employer, not its customer. Even when indemnity is assured, customers who foresee using other manufacturers' designs in the future may want to keep expert witnesses on a short lease to ensure that their positions do not exonerate their present supplier at the expense of their future supplier. The end result is that customer defendants generally hire academics or "professional expert" witnesses who are no longer actively working in the field of the invention and who may be attacked in court as "hired guns." 82

⁸⁰ Trade secret law only protects information that is "not . . . generally known." Uniform Trade Secrets Act § 1(4)(i) (1985). Information loses its protected status once it is publicized, even if that disclosure was made by a third-party. *See, e.g.*, Religious Tech. Center v. Lerma, 908 F. Supp. 1362 (E.D. Va. 1995) (holding that stolen information posted online was no longer protectable as a trade secret).

⁸¹ For example, manufacturers who are frequent targets of patent suits are reluctant to release technical information that might be used by the plaintiff, or other patentees, to identify additional patents that could be enforced down the road against the manufacturer or its customers. Manufacturers are also worry about "submarine patenting." See, e.g., Brian J. Love, Interring the Pioneer Invention Doctrine, 90 N.C. L. REV. 379, 425-26 (2012) ("Using (or perhaps abusing) the continuation process, it is surprisingly simple for a patentee to win claims covering products and technology introduced into the market well after her original application was filed. This practice [is] sometimes called 'submarine patenting' "). In other words, they worry that the plaintiff or another patentee might have pending patent applications that can be modified on the basis of disclosed technical information so that they precisely cover the manufacturer's products. Customer defendants that don't produce products are not familiar with these concerns and, thus, are less likely than manufacturers to safeguard against these threats—for example, by including a "patent prosecution bar" in protective orders. See James Juo & David J. Pitman, A Prosecution Bar in Patent Litigation Should Be the Exception Rather than the Rule, 15 VA. J.L. & TECH. 42, 43 (2010) ("[A] prosecution bar . . . prohibit[s] attorneys who receive the disclosing party's confidential information from prosecuting patents on behalf of the receiving party.").

⁸² See Jeffrey L. Harrison, Reconceptualizing the Expert Witness: Social Costs, Current Controls and Proposed Responses, 18 YALE J. ON REG. 253, 253 (2001) (arguing that

C. Manufacturers Are Better Positioned To Value Patent Rights

Another benefit the Federal Circuit's test ignores is the manufacturer's ability to negotiate a settlement consistent with the value of the patented technology and financial realities of the field of the invention. For many of the same reasons manufacturers are best suits to argue the merits of patent claims, manufacturers are also uniquely positioned to ensure that damages awarded for infringement align with the actual value of the patented technology. Compared to individual customers, a manufacturer is more likely to possess information relevant to reasonable royalty calculations, more likely to correctly apportion value between patented and unpatented features, and less likely to collude with the patentee to the detriment of future accused infringers.

First, manufacturers generally have in-house knowledge of the financial realities of the industry, including industry-standard licensing rates and practices, as well as the value of (or cost-savings attributable to) the accused technology, including how it compares with potential alternatives. ⁸³ These considerations are directly relevant to calculating reasonable royalty damages, typically the only remedy an NPE can hope for. ⁸⁴

professional experts are perversely incentivized to testify positively for the party who hires them because experts cannot be held accountable in tort or contract law by the opposing party). To be effective, these experts generally must obtain information from other third-parties who *are* actively working in industry. Often, the only avenue to obtain this information is depositions, which are very structured, occasionally adversarial, generally limited in time and scope, and thus far from an ideal method of gathering information.

⁸³ See Georgia-Pacific Corp. v. United States Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (holding that reasonable royalty damages should take into consideration "[t]he utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results" and "[t]he portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions").

⁸⁴ NPEs cannot seek "lost profit" damages because they typically do not manufacture or sell products that compete with products accused of infringement. *See* Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1156 (6th Cir. 1978). Moreover, because the NPEs are in the business of collecting royalties, they frequently cannot satisfy the "irreparable harm" prong of 4-factor test for an injunction. *See*, *e.g.*, Lily Lim & Sarah E. Craven, *Injunctions Enjoined; Remedies Reconstructed*, 25 SANTA CLARA COMP. & HIGH TECH. L.J. 787, 798 (2009) (noting that between May 2006 and October 2008 just three permanent injunctions were issued in NPE cases, while 39 were

Under the *Georgia-Pacific* standard, reasonable royalty damages must be set at a rate that takes into account, among other considerations:

The rates paid by the [infringer] for the use of other patents comparable to the patent in suit The effect of selling the patented specialty in promoting sales of other products of the [infringer] The established profitability of the product made under the patent The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results [T]he benefits to those who have used the invention The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements significant features or improvements added by the infringer.85

For each category of evidence listed above, it is the infringing product's manufacturer, rather than one purchaser, who is in the best position to marshal evidence of the patent's value. A customer involved

issued in cases between product-producing companies). In any event, reasonable royalties is the predominant form of damages in patent cases. *See* PwC PATENT LITIGATION STUDY 12 (reporting that from 2002-2009 reasonable royalties were awarded in 77.9% of patent cases where damages were awarded).

⁸⁵ Georgia-Pacific, 318 F. Supp. at 1120. Patentees who cannot prove that they are entitled to lost profit damages—frequently because they do not sell a product, let alone one covered by their patent—may recover as damages only the reasonable royalty for which they could have licensed their patent to the infringer. See 35 U.S.C. § 284 (permitting court to award "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer"). In setting this reasonable royalty rate, courts attempt to reconstruct the hypothetical bargain that the parties would have negotiated had they willingly tried to do so at the time infringement began. See Panduit, 575 F.2d at 1157-58 ("A reasonable royalty is an amount which a person, desiring to manufacture and sell a patented article, as a business proposition, would be willing to pay as a royalty and yet be able to make and sell the patented article, in the market, at a reasonable profit." (quoting Goodyear Tire & Rubber Co. v. Overman Cushion Tire Co., 95 F.2d 978, 984 (6th Cir. 1937))). To recreate this "willing licensor-willing licensee" royalty, courts generally rely on the fifteen factors set forth in Georgia-Pacific, 318 F. Supp. at 1120.

in a one-off patent suit is unlikely to have licensed a patent before, let alone one comparable to the patent-in-suit. 86 The manufacturer, on the other hand, may have licensed many, both as licensor and licensee.

A customer likewise has far less evidence related to sales made along with the patented technology and the benefits associated with its use. A customer is intimately familiar with its own decision to purchase and anticipated benefits, but a manufacturer generally will be familiar with the needs, preferences, and willingness to pay of its *entire customer base* and may well have already commissioned industry-wide surveys on these topics.⁸⁷

In addition, a manufacturer is generally in a better position to apportion value between patented and unpatented88 features of the product and to estimate the value of the patented features compared to the next best alternative. First, a manufacturer is better able to determine the fraction of its revenue attributable to non-patented features of its product and the fraction attributable to the invention claimed in the asserted patent. Again, though a customer is intimately familiar with its own valuation of the product it purchased and its (potentially) myriad features, a manufacturer generally will be familiar with the aggregate preferences of its entire customer base and likely possesses previously-acquired data on The manufacturer is also better equipped to discover, these topics. catalogue, and value non-infringing alternative technology. Though the customer may have shopped around and become familiar with some alternatives to the product it purchased, the manufacturer possesses inhouse expertise in the field of the invention and is, thus, far betterequipped to design-around the patent by designing a non-infringing

⁸⁶ See supra note 61.

⁸⁷ See, e.g., Darrell Rigby, Management Tools Survey 2003: Usage Up as Companies Strive to Make Headway in Tough Times, STRATEGY & LEADERSHIP vol. 31, iss. 5, at 6 (2003) ("Of the respondents, 78 percent said they use [customer relationship management] systems, compared with 35 percent in 2000. Customer surveys and customer segmentation strategies both landed in the top ten in terms of usage and satisfaction."); PAUL HAGUE ET AL., MARKET RESEARCH IN PRACTICE 4 (2004) (explaining that effective market research generates data on: customers' "likelihood of adoption of new products," "customer satisfaction" with existing products, and customers' "unmet needs").

⁸⁸"Unpatented" in the sense that the features or components are not covered *by the patent at issue in the case*—not that they are completely unpatented. This convention is also followed in the case law. *See* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1551 (Fed. Cir. 1995) (explicitly defining "unpatented" as "not covered by the patent in suit"). Components of a complex device may, of course, be covered by a multitude of patents. *See infra* note 91.

version.⁸⁹ In fact, the manufacturer may well sell a non-infringing version of the accused product and, thereby, have ready access to data reflecting the value added by the patented version.

Second, and perhaps more importantly, manufacturers have a practical advantage over entities below them on the supply chain when it comes to damages apportionment: they sell the smallest infringing unit. ⁹⁰ As products move down the supply chain they often become components of larger, complex devices, rather than products in their own right. Devices purchased by end users often incorporate hundreds or thousands, and sometimes even hundreds of thousands of individually patented inventions. ⁹¹

Fortunately for patentees (and unfortunately for accused infringers), the larger and more complex the accused device is relative to the patented

⁸⁹ For example, in litigation between Apple and companies selling phones using Google's Android mobile operating system, it was Android creator Google (rather than customer defendants like Samsung and HTC) that developed noninfringing alternatives to some of Apple's software patents. *See*, *e.g.*, Brad Reed, *How Google Reworked Android to Step Around Apple's Deadly '915 Patent*, BGR, Aug. 30, 2012, at http://bgr.com/2012/08/30/apple-patent-analysis-google-android/.

⁹⁰ Chao, *supra* note 26, at 115 (finding that damages awards should be smaller if the patentee chooses to sue the manufacturer because "[u]nder the current system of permissive apportionment, attorneys representing the manufacturer will point out that the patented invention is only [a] small part of a much larger product. Moreover, these arguments will be buttressed by instructions from the judge that incorporates the thirteenth *Georgia-Pacific* factor.").

⁹¹ According to a study by patent aggregator RPX, the average smartphone incorporates about 250,000 patented inventions. See RPX Corp., Registration Statement (Form S-1) 59 2, 2011), available http://www.sec.gov/Archives/edgar/data/1509432/000119312511240287/dsl.htm ("Based on our research, we believe that there are more than 250,000 active patents relevant to today's smartphones "). See also Amy L. Landers, Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law, 46 SANTA CLARA L. REV. 307, 341 (2006) ("'[S]oftware and computers are examples of 'system' products-they comprise thousands, even hundreds of thousands, of individually functioning components and features all assembled in a package for a customer. Because many of these features could be the subjects of a patent, it is often the case that thousands of patents may be relevant to a particular computer or software product." (quoting Patent Quality Improvement, Hearing Before the Subcomm. on Courts, the Internet and Intellectual Prop. of the H. Comm. on the Judiciary, 109th Cong. 52 (2005) (statement of Richard J. Lutton, Jr., Chief Patent Counsel, Apple Computer, Inc., on behalf of the Business Software Alliance))); Mark A. Lemley & Carl Shapiro, Patent Holdup and Royalty Stacking, 85 TEX. L. REV. 1991, 1992 (2007) ("[M]odern products such as microprocessors, cell phones, or memory devices can easily be covered by dozens or even hundreds of different patents.").

technology, the larger damages awards tend to be. In many situations, patentees are overcompensated—and socially-valuable, but potentiallycommercialization over-deterred-as result. infringing. is Overcompensation occurs for at least two interrelated reasons. For one, the larger the accused device, the harder it is for jurors to distinguish between value attributable to the patented invention and value attributable to other features and components. 93 Second, the "anchoring" effect of the larger sales price of a larger device, allows patentees to ask for larger damages amounts without appearing unreasonable.94 The cumulative result is that reasonable royalty awards tend to hover around 10-15% of the revenue of the accused product, regardless of the complexity of that product relative to the patented invention.⁹⁵ Naturally, given the choice, the owner of a patent related to 3G wireless technology would prefer to pursue 10-15% of a \$600 smartphone, rather than 10-15% of the \$6.50 3G wireless chipset installed therein. 96

Manufacturer suits dampen both value-skewing effects. Manufacturers often sell a smaller device than the one end-users ultimately purchase. With fewer components to distinguish, apportionment is easier. Likewise, with fewer components, revenue totals are smaller and consequently anchoring has less impact.

Finally (and perhaps surprisingly), once a customer decides to settle, it has a strong incentive to actually *help* the patentholder game the system for awarding patent damages. The reason is simple: defending a patent suit generates uncompensated positive externalities. ⁹⁷ A customer

⁹² See Chao, supra note 26, at 99.

⁹³ *Id.* at 111-113.

⁹⁴ *Id*. at 115-118.

⁹⁵ See Lemley & Shapiro, supra note 91, at 2034-35 (analyzing all reasonable royalty damages awards reported in Westlaw between 1982 and February 2005 that could be calculated as a percentage of the sale price of infringing units, and finding that reasonable royalty rates averaged 13.1% of sales during their study period – well above the average profit margin of just 8.3%).

⁹⁶ For example, an unlocked iPhone 4S currently retails for almost \$600, see http://www.amazon.com/Apple-iPhone-4S-16GB-Black/dp/B006FMDVDK, while the wireless chipset it includes costs about \$6.50, see iPhone 4S Component Costs Once Again Begin at About \$188, MACRUMORS, Oct. 20, 2011, at http://www.macrumors.com/2011/10/20/iphone-4s-component-costs-once-again-begin-at-about-188/.

⁹⁷ See, e.g., Joseph Farrell & Robert P. Merges, Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative

defendant bears the cost of defense, but shares the benefits of invalidating or narrowing a patent with all its competitors. As a result, a customer defendant has less than socially-optimal incentive to litigate, and instead once sued actually has an incentive to see its competitors also bear the cost of a patent suit. Accordingly, NPEs commonly kickoff a patent enforcement campaign by first targeting weak customer defendants in order to obtain favorable settlements or court victories that will set an initial "market price" for the patent moving forward. ⁹⁸ Customer defendants are routinely complicit in this process and may, for example, willingly settle for an artificially high royalty rate applied to an artificially small quantity of sales in hopes that their competitors will later pay the same rate on *all* their revenue. ⁹⁹

III. EXPANDING THE CUSTOMER SUIT EXCEPTION

For all these reasons, the current test for applying the customer suit exception fails to consider the full range of costs of customer litigation and benefits of manufacturer litigation. As a result, current caselaw fails to achieve a socially-optimal balance between patentees' rights to enforce their patents and society's interest in policing and properly valuing patented inventions. Fortunately, existing doctrine is easily salvageable. Courts are looking in the right direction, but with an unduly narrow focus.

Patent Review Might Help, 19 BERKELEY TECH. L.J. 943, 958 (2004) ("[A] challenger bears the cost of litigation but its rivals and downstream buyers will capture almost all the benefits of successful challenge").

⁹⁸ Settlement rates and reasonable royalty damages not only affect the parties involved in the litigation but also impact the entire industry. A judicial finding of patent infringement, validity and damages has an enormous impact on the value of a patent and the royalties that may be collected by patent holders. *See* Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, J. ECON. PERSP., Spring 2005, at 80-81 ("The distribution of value of patents appears to be highly skewed, with the top 1% of patents more than a thousand times as valuable as the median patent. Many patents are virtually worthless, either because they cover technology that is not commercially important, because they are impossible to enforce effectively, or because they are very unlikely to hold up if litigated and thus cannot be asserted effectively."). Favorable litigation outcomes often set the "market price" for the patent because potential infringers are deterred from challenging a patent that has been battle-tested. *See* Chien, *Startups and Patent Trolls*, *supra* note 23, at *5 ("Small companies increase the returns to patent assertion when they legitimize PAE patents, regardless of their validity, by agreeing to royalty-based settlements.").

⁹⁹ See Chien, Startups and Patent Trolls, supra note 23, at *5 (noting that "small companies are being used by PAEs to secure venue and early settlements to feed the war chest").

Accordingly, we recommend that courts expand existing doctrine as follows.

First, we recommend that courts begin applying the customer suit exception (at least to a limited extent) on a patent-by-patent and manufacturer-by-manufacturer basis, rather than on a case-by-case basis. To do otherwise is to render the doctrine a virtual nullity. Current caselaw limits the doctrine's application to circumstances where customer defendants are "mere resellers" of the technology produced by one manufacturer. On As a result, the doctrine is easily circumvented by adding a customer-specific claim or suing a batch of customers who collectively use the technology of more than one manufacturer.

At a minimum, we suggest that courts apply the customer suit exception (i) when the patentee's infringement allegations are primarily directed at a manufacturer's technology and no more than nominally at technology added by the customer defendants themselves, and (ii) if customers of multiple manufacturers are joined, when there are no more than nominal questions of fact common to all customer defendants. This proposed rule, which draws on traditional principles of "improper joinder" as well as new joinder rules applicable in patent suits following enactment of the America Invents Act, 103 would prevent patentees from strategically avoiding the doctrine by adding trivial customer-specific claims or claims against customers of other manufacturers, and would instead give courts discretion to apply the customer suit exception when doing so would clearly advance the interests of judicial economy.

Second, we recommend that courts whether the exception will advance judicial economy in a particular case, consider more than just the short-term consequences of such a ruling. Current doctrine asks only whether applying the exception will reduce the number of already-filed suits, without regard to whether it might reduce the number of suits filed in the future. ¹⁰⁴ Instead, courts should take a broader view of judicial economy that additionally considers whether applying the exception will lead to

¹⁰⁰ See supra note 54.

¹⁰¹ *Id*.

¹⁰² See, e.g., Salazar v. Allstate Texas Lloyd's, Inc., 455 F.3d 571, 574 (5th Cir. 2006) ("In the paradigmatic fraudulent joinder case, a plaintiff sues a nominal nondiverse/instate defendant along with a diverse foreign defendant in an effort to make sure that its claims against the diverse defendant stay in state court.")

¹⁰³ See supra note 6.

¹⁰⁴ See supra note 53.

fewer case filings down the road. In other words, courts should consider the nature of the litigation before them—i.e., whether or not it appears to be part of a large enforcement campaign against users of technology—and, thus, the likelihood that one (or even a small handful of) manufacturer suits will stop future suits from being filed or significantly reduce litigation costs by, for example, simplifying discovery. Additionally, courts should consider whether applying the customer suit exception in the instant case is likely to deter other patentees from endeavoring to sue a multitude of customer defendants, when it would be possible to instead sue a solvent manufacturer.

Finally, we recommend that courts add an additional factor to the test: rather than focusing exclusively on judicial economy, courts should additionally consider society's interest in enforcing the quid pro quo underlying the patent system. ¹⁰⁵ Specifically, courts should weigh the relative abilities of the manufacturer and customers involved in the instant suit to defend against the patentee's claims. This consideration should include the parties' respective knowledge of and access to information relevant to the patent's validity, the specific components or features accused of infringement, and the calculation of damages, including alternatives and industry licensing practices.

CONCLUSION

Nuisance value litigation harms everyone, and enriches no one, except those who pursue it. With patent-fueled strike suits on the rise, and meaningful legislative reforms out of reach, courts and accused infringers need common law "self-help" solutions now more than ever. 106

¹⁰⁵ See, e.g., J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc., 534 U.S. 124, 142 (2001) ("The disclosure required by the Patent Act is 'the quid pro quo of the right to exclude.'" (quoting Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 484 (1974))); Brenner v. Manson, 383 U.S. 519, 534 (1966) ("The basic quid pro quo ... for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility."); Pennock v. Dialogue, 2 Pet. 1, 23 (1829) (noting that if an invention is already commonly known and used when a patent is sought, "there might be sound reason for presuming, that the legislature did not intend to grant an exclusive right," given the absence of a "quid pro quo.").

¹⁰⁶ See Colleen V. Chien, Reforming Software Patents, 50 HOUSTON L. REV. 325, 387-90 (2012) (arguing that historical examples suggest that legislative efforts to reform the patent system generally fail, while "self-help" mechanisms like tacit industry-wide coordination against patent abuses have generally succeeded).

Fortunately, a promising solution has been lurking in the forgotten recesses of patent caselaw for decades. Though unduly limited in its current incarnation, the customer suit exception is, in spirit, just what the patent system needs: a procedural vehicle that ensures the entity best suited to test a patent gets a shot at doing so. Updating the doctrine to account for the complexity of modern technology might just be enough to stop the next Innovatio or Lodsys before it ever files a suit.