Surviving in the Secondary Patent Marketplace

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Are companies known variably as patent trolls, NPEs or PAEs "renegade outfits that buy[] up patents . . . to hold up innocent companies [or praiseworthy entities that are] trying to . . . create a capital market for inventions"?[2]

I. Introduction

The relatively recent emergence of the secondary patent marketplace has transformed patents from simply an exclusionary property right into an intellectual property asset that can be integral to a business strategy and have value as a transactional good.[3] In this secondary patent marketplace, patents are traded, licensed, sold, and used as business assets in their own right because they have now acquired financial value, in addition to their historic right to exclude others from practicing a claimed invention. Without doubt, Procter & Gamble (P&G) and IBM have demonstrated that when intellectual property rights are treated as a business asset, as opposed to a "legal issue," the value of those intellectual property rights can increase multifold.[4] The latest statistics bear witness to P&G's and IBM's strategy: global intellectual property licensing revenues for both patents and technology exceeded $90 billion per year since 2003.[5] Indeed, in 2011, global licensing revenues are greater than $150 billion and have been growing at 25% to 35% per year.[6] And in the global patent sales marketplace, patent sales have been estimated to generate $1.2 billion per year.[7] Between 2002 and 2008 an estimated 30,000 to 35,000 patents were sold.[8]

But one must ask who is paying for these patents in the secondary patent marketplace, and why? Some point out that it is operating companies that are bearing the brunt of the cost in the secondary patent marketplace because they are typical targets of the licensing practices of non-practicing entities and those costs, by definition, occur *ex post* of such companies' sunk manufacturing costs.[9] Others have criticized treating patents as business assets because it

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[1] The opinions presented in this paper are those of the author only, and do not reflect those of any other parties.
[2] Nathan Myhrvold, *The Big Idea: Funding Eureka!*, Harv. Bus. Rev., March 2010, at 1, 2.
[3] Allen W. Wang, *Rise of the Patent Intermediaries*, 25 BERKELEY TECH. L.J. 159, 159 (2010).
[4] Jackie Hutter, *Get the Lawyers Away from IP*, Readers at the Whiteboard, Bloomberg Business Week, available at: http://images.businessweek.com/ss/09/03/0312_gamechanging_readers/9.htm.
[5] Anne Kelley, *The Licensing of Intellectual Property: Practicing in the Patent Marketplace*, 78 U. CHI. L. REV. 115, 115 (Winter 2011).
[6] Raymond Millien, PCT Capital, LLC, *The IP Marketplace Players*, slides 9-10, presented at FTC Hearing: The Evolving IP Marketplace (Dec. 5, 2008), available at http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/docs/rmillien.pdf (last visited 12/1/2011).
[7] *See* Kelley, *supra* note 5, at 116.
[8] *Id.* at 117; *see also* Wang, *supra* note 3, at 162.
[9] FEDERAL TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION, Intro., at 9 (March 2011) ("Patent transactions that occur as part of a technology transfer agreement can be considered *ex ante* because they occur before the purchaser has obtained the technology through other means. Such *ex ante* patent transactions accompanied by technology transfer have great potential for advancing innovation, creating wealth and increasing competition among technologies.* * * * But ex post licensing to manufacturers that sell products developed or obtained independently of the patentee can distort competition in technology markets and deter innovation. The failure of the patentee and manufacturer to license ex ante with technology transfer results in duplicated R&D effort. When a manufacturer chooses technology for a product design without knowledge of a later-asserted patent, it makes that choice without important cost information, which deprives consumers of the benefits of competition in the technology market. If the manufacturer has sunk costs into using the technology,

distorts competition and damages innovation by no longer encouraging open innovation and technology transfer.[10] Yet some claim that the secondary patent marketplace is encouraging innovation by giving inventors a way to extract revenue from their inventions.[11] The debate is robust. Nevertheless, whether it is good or bad that patents can be a remunerative business asset, there is now a secondary patent marketplace where patents are treated as a commodity in their own right, and it is rapidly growing and changing.[12] Participating or navigating it successfully requires knowledge and the ability to use resources that are now available in and as a result of this secondary patent marketplace. This paper addresses who the players are in the secondary patent marketplace, how to implement a system that can participate in this market, what complexities are inherent in a market that involves patents, and how to respond when a target of a company that is using this market to license its patents.

II. The Players in the Secondary Patent Marketplace

This secondary marketplace includes many business models that are employed by buyers, sellers, brokers, aggregators, developments companies, enforcement companies, funds, investment companies, clearinghouses, securitization firms, etc. And it continues to evolve. The most recent exhaustive list of players was given by Raymond Millien in December of 2008, where he identified 17 different business models designed to promote the sale and licensing of patents.[13] These business models can be placed into several broad categories: Patent enforcement and licensing companies, litigation finance firms, patent aggregators, defensive buying funds and intermediaries.[14] One commentator more broadly characterized the players in this secondary patent marketplace as simply buyers, sellers, and facilitators; where the buyers include patent assertion firms, defensive aggregators and Intellectual Ventures; the sellers include anyone who wants to sell a patent; and the facilitators include patent transaction specialists like brokers, auctioneers, clearinghouses, valuation experts, technology vanguards and patent attorneys.[15] Another commentator took a different approach to break down the players of the secondary patent marketplace into a different set of broad categories: brokers, defensive aggregators, and offensive aggregators; where the broker is a bridge to the secondary patent market assisting sellers to find buyers while also helping the buyers maintain their bargaining power and valuation of patents; where the defensive aggregator acquires patents to provide

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the patentee can use that investment as negotiating leverage for a higher royalty than the patented technology could have commanded ex ante, when competing with alternatives. The increased uncertainty and higher costs associated with ex post licensing can deter innovation by manufacturers."); *see also, id*. at 52-54.

[10] *Id.*, chp. 2, at 40, 50 ("[W]e see increasing activity and complexity of business models in markets for patents that do not involve technology transfer. In these markets, patents are bought, sold and licensed as assets whose value is based on their ability to extract rents from manufacturers already using the patented technology. This activity risks distorting competition among technologies and deterring innovation, especially when driven by poor patent notice and remedies that do not align with the economic value of the patented invention.").

[11] Myhrvold, *supra* note 2.

[12] *See* Kelley, *supra* note 5, at 118-123.

[13] *See* Millien, *supra* note 6, at slides 9-10 (listing (1) patent enforcement companies; (2) institutional IP aggregators/acquisition funds; (3) IP/technology development companies; (4) licensing agents; (5) litigation finance/investment firms; (6) IP brokers; (7) IP-based M&A advisory; (8) IP auction houses; (9) on-line IP/technology exchanges, clearinghouses, bulletin boards and innovation portals; (10) IP-backed lending; (11) royalty stream securitization firms; (12) patent analytics software and services; (13) university technology transfer intermediaries; (14) IP transaction exchanges & trading platforms/IP transaction best practices development communities; (15) defensive patent pools, funds, alliances; (16) technology/IP spinout financing; and (17) patent-based public stock indexes).

[14] FEDERAL TRADE COMM'N, *supra* note 9, Intro., at 62-67.

[15] *See* Kelley, *supra* note 5, at 118-123.

freedom to operate for its subscribers by reducing litigation and settlement costs; and where the offensive aggregator develops and acquires patents for the purpose of exploitation through assertion of its portfolio via licensing or litigation.[16] A non-exhaustive list of patent brokers includes companies like IP Offerings,[17] Patent Matchmaker,[18] ThinkFire,[19] GTT Group,[20] and General Patent Corporation.[21] A non-exhaustive list of defensive aggregators includes companies like Allied Security Trust,[22] RPX,[23] and Open Invention Network.[24] A non-exhaustive list of notorious offensive aggregators, also variably known as patent trolls, non-practicing entities ("NPEs"), and patent assertion entities ("PAEs"),[25] includes Intellectual Ventures, Acacia Technologies, Constellation Group, and Mosaid, though it must be noted that Intellectual Ventures is a company that both aggregates patents defensively and licenses them not only to its constituents but to third parties as well.[26] It must further be noted that there are also product companies with product lines that also sell and license patents. Interestingly, though 25 percent of patent sales are made by operating companies, these sales actually represent approximately 60 to 65 percent of the value of all transactions.[27]

III. Challenges to Building a Patent Monetization System as an Operating Company with Products

If a company wants to build a patent monetization system, it may confront many challenges ranging from how it views its inventions and patents to understanding the secondary marketplace where patents can now be monetized. As described above, there are many resources available in the secondary patent marketplace but which ones to use may depend on what method a company uses to monetize its patents. And even once a company chooses how to monetize its patents, it will likely find the marketplace to be less than transparent and it will confront the hurdle of accurately valuing its patents. Below this paper summarize the challenges many have faced when entering the secondary patent marketplace to monetize patents.

A. Changing the Old Mind Set

Historically, a patent's purpose has been to protect inventions. Until recently, patents have not generally been viewed as generating revenue separately from their development and

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[16] *See* Wang, *supra* note 3, at 166 (2010).
[17] IPOfferings, available at http://www.ipofferings.com/patent-brokerage-patent-brokers.html (last visited 12/1/2011).
[18] Patent Matchmaker, available at http://patentmatchmaker.com/Home_Page.html (last visited 12/1/2011).
[19] ThinkFire, available at http://www.thinkfire.com/services/patent-brokerage/ (last visited 12/1/2011).
[20] GTT Group, available at http://www.gttgrp.com/services/patent-brokerage/ (last visited 12/1/2011)
[21] General Patent Corporation, available at http://www.generalpatent.com/consulting/patent-brokerage-services (last visited 12/1/2011).
[22] Allied Security Trust, available at http://www.alliedsecuritytrust.com/ (last visited 12/1/2011).
[23] RPX, available at http://www.rpxcorp.com/index.cfm?pageid=19 (last visited 12/1/2011).
[24] Open Invention Network, available at http://www.openinventionnetwork.com/about.php (last visited 12/1/2011).
[25] The Federal Trade Commission recently issued a report in which it introduced a new category of firms whose business model primarily focuses on purchasing and asserting patents: a patent assertion entity ("PAE"), which it contrasted from the more commonly known "non-practicing entity" (NPE) that the FTC believes refers to firms that primarily seek to develop and transfer technology, such as universities and semiconductor design houses. In the FTC's view, patent assertion entities do not include the latter group. *See* FEDERAL TRADE COMM'N, *supra* note 9, at 8, 60 ("PAEs purchase patents, and then sell or license them as assets whose values are based on the amount of licensing fees that can be extracted from operating companies already using and marketing the technology, or they facilitate others who make the assertions.")
[26] *See* Kelley, *supra* note 5, at 120.
[27] *Id.*

incorporation into a saleable asset. Patents have been viewed as an intangible asset that is intended to protect a company's inventions and products that practice those inventions. Indeed, one commentator believes that companies have rarely funded inventors and patent departments as a business in their own right: "instead, they fund it as an act of faith that the [inventions] produced will somehow create value as they percolate through the product organization."[28] Because of this historical view of patents, it is typical for inventions and patent departments to be funded with a mindset that such monies are given "charitably."[29]

In the secondary patent marketplace, however, this historical view has changed. Because products in industries like the high-tech industry integrate multiple functions that may practice a plurality of inventions that are combined into a single product (i.e., a laptop, cell phone, e-reader, etc.), the complexity of these products that integrate so many functions can create a minefield of patents as one company simply may not be able to own or know about all of the patents that could cover such a complex, multi-functional product. Then, enter the advent of PAEs who merely mine these patent fields, buying up patent to use offensively against these operating companies, and the "old way" of looking at patents must change. Operating companies should recognize that patents are no longer viewed the "old way" by PAEs, and that these PAEs will likely knock on their doors to collect on patents they have acquired. Operating companies may also now need to defensively develop or acquire patents, either on their own or by joining defensive aggregators, in order to gain some protection from PAEs who are offensively asserting their patents against any company that might practice a patent it owns.[30] Also, being pursued by a PAE is expensive. According to one commentator, to survive in an industry with patent thickets and PAEs, a company must treat its inventions as a for-profit business.[31] Operating companies may no longer have a choice but to also find ways to develop or acquire and license or sell patents, a.k.a. "monetize," just to survive the expense of being pursued by PAEs.[32] But even though it may be critical or even a matter of survival for an operating company to evaluate and change how it has historically viewed and treated its patents, changing that mindset can be the most challenging aspect of all, as it may go against the very grain of a company's core business practice.

B. The Need for a Monetization System

If an operating company is successful in changing its mindset, in order to tap into its patents' revenue generating potential, it will face the challenge of needing to develop a patent monetization system. Management's first imperative will be to create an invention policy and framework that encourages inventors to invent and a scheme that rewards inventors who make valuable, patentable inventions. Both the inventions and the patents obtained on those inventions must be of high value. This means the inventions must be relevant at the time they are patented, and the patents must be properly drafted to cover the relevant market. In order to achieve valuable inventions and patents, a good patent monetization system will also have available for

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[28] *See* Myhrvold, *supra* note 2, at 3.
[29] *Id.* at 3.
[30] Robert P. Greenspoon and Catherine M. Cottle, *Don't Assume a Can Opener: Confronting Patent Economic Theories with Licensing and Enforcement Realities*, 12 COLUM. SCI. & TECH. L. REV. 194, 200-201 (2011).
[31] *See* Myhrvold, *supra* note 2, at 4.
[32] Brenda Sandburg, *You may not have a choice; Trolling for Dollars*, THE RECORDER (July 30, 2001), available at: http://www.phonetel.com/pdfs/LWTrolls.pdf. (last visited 12/1/2011).

consultation one or more experts in the field of each invention that can evaluate each invention's value and patentability, and patent attorneys who can draft and file patent applications. Then, once the inventions have been patented and before choosing whether to monetize that patent, experts in the above-described secondary patent market and the company's business must also evaluate whether the company wants to "keep" the patent to protect its products or business, or allow the patent to be monetized. Some patents must be kept for defensive purposes against competitors and others because they are implemented in the company's own products. However, if a patent is chosen for monetization, then the next absolutely necessary step is market research. If the patent is to be sold, market research is necessary to find buyers. If the patent is to be licensed, market research is necessary to find infringers, a.k.a. licensees. Without market research, buyers and infringers can be very hard to detect and find. And depending on the number of patents a company is seeking to monetize, i.e., if a large number, a good system may require the development of a specialized market research and sales/marketing group that can identify licensees, market its patents to those licensees, and sales agents to approach those licensees. Once a buyer or licensee has been identified, licensing attorneys will be needed to negotiate and draft the license agreement; and if negotiations fail, litigation attorneys will be needed to enforce a company's patent against those who infringe and refuse to either license or purchase the infringed patent(s). Of course, enforcing patents requires money, lawyers and courts, and results are unpredictable. It is for this reason, that it is imperative that a company have the right mindset, as part of that mindset will require the guts and funds to enforce a company's patents. It will also require a company to pick among several ways it can monetize its patents, as licensing or sale are not the only available methods.

C. Picking a Method to Monetize a Patent

Because a patent is a constitutional right to exclude during the term of the patent grant, it can be treated as a piece of property, and how to treat that property will be another challenge. Like any property, a patent can be sold, split, licensed, cross-licensed, used for a loan, etc.[33] Some commentators point out that the quickest path to monetizing a patent or patent portfolio is to sell it to companies that are in the business of purchasing patents, since the outright sale of a patent eliminates the financial outlays of starting a business or a company around a patented product.[34] That said, the monetary returns on a sold patent may be low,[35] and the seller forfeits ownership of the patent, which could later be enforced against the very entity that originally sold the patent. Thus, a way to prevent a situation where the sold patent is later asserted against its original seller and to increase potential revenue on the back-end of a sale, a patent owner can sell the patent with an agreement that the purchaser will grant back a royalty-free, non-exclusive license plus a percent of any royalty the purchaser earns from licensing of the purchased patent.[36]

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[33] *See* A Path To Monetizing Patents, available at http://www.ipprocurement.com/patents/articles/monetizing_patents.html (last visited 12/1/2011).

[34] *Id.*

[35] Bruce E. Burdick, *Monetizing Patents*, available at: http://www.burdlaw.com/monetize.html (last visited 12/1/2011) ("Outright sale of a patent eliminates the financial outlays of starting a business or a company around a patented product. However, the monetary returns on patents may be low because the purchaser has to spend money to either enforce the patent or develop a market for the patented item.")

[36] Selling patents with a grant-back, non-exclusive, royalty free license and an agreement that the purchase will share a percentage of royalties it collects on the patents allows patent owning companies to monetize their non-core patent assets while still continuing to build a viable business. *See* A Path To Monetizing Patents, *supra* note 33.

Also, another quite common way to monetize a patent is to license the patent to other companies that practice the patented invention. The patent holder can license the patent either for an upfront, lump-sum license fee; or for running royalties for an agreed upon term or for the life of the patent; or for some combination of a lump sum and running royalty license fee. As compared to the sale of a patent, licensing often translates to larger monetary returns if the utility of the patented technology is high, widespread, and significant over time.[37] Multiple high technology companies obtain significant revenue from licensing of their patents. However, unless companies are actively seeking to license the patent in question, the only way to find potential licensees that can monetize the patent will necessitate the patent holder to proactively seek out products that infringe its patent and demand that the infringer take a license to the patent or risk having it enforced against him in court.

A less common way to monetize patents is to use patents to raise funds from financial institutions. Prior to the recent recession, using intellectual property as collateral to secure financing, though complicated, had become accepted.[38] However, because a patent right is territorially limited to its countries borders, in the eyes of a foreign lender, this territorial limitation could impact a patent's usefulness. Nevertheless, in the United States, Article Nine of the Uniform Commercial Code regulates secured transactions, including intellectual property as a form of "personal property."[39] As compared to licensing, the advantage to using a patent to raise money is that that concerns over collection of royalties will be absent, as will be the need to enforce the patent should royalties stop coming in or new infringers be found.[40]

D. Opacity of Determining Patent Rights

But if choosing to sell or license a patent, one of the most difficult challenges one may confront will be the difficulty of uncovering the rights that a patent still retains and other patent rights that may affect that patent. Commentators have highlighted the high transaction costs associated with the inability to be able to identify patents rights.[41] Because the patent system constantly generates new rights of unclear scope and uncertain validity, these costs are not a one-time investment, like running a title search or building a fence, but an ongoing burden, says Professor Eisenberg at the University of Michigan Law School.[42] Indeed, several commentators all agree that, as it currently exists, there is no transparent interface between the commercial world of operating companies and the patent system.[43] The reforms these commentators propose for the problems and high transaction costs that result from the opacity of the patent market

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[37] *Id.*
[38] *See* Peter S. Menell, *Bankruptcy Treatment of Intellectual Property Assets: An Economic Analysis*, 22 BERKELEY TECH. L.J. 733, 822 (2007) (stating that numerous problems exist that hinder the use of securitized intellectual property as collateral, stemming from fragmented systems with high transaction costs); Ariel Glasner, *Making Something out of "Nothing": The Trend Towards Securitizing Intellectual Property Assets and the Legal Obstacles that Remain*, 3 J. LEGAL TECH. RISK MGMT. 27, 27 (2008) (stating that "[w]hile the mechanics of structuring traditional asset securitizations are well-established, intellectual property (IP) securitizations raise a host of complex issues that must be resolved before this particular asset class can be leveraged on a more regular basis").
[39] Brian W. Jacobs, *Using Intellectual Property to Secure Financing after the Worst Financial Crisis Since the Great Depression*, 15 MARQ. INTELL. PROP. L. REV. 449, 456 (Summer 2011).
[40] *Id.* at 458.
[41] Rebecca S. Eisenberg, *The Licensing of Intellectual Property: Patent Costs and the Unlicensed Use of Patent Inventions*, 78 U. Chi. L. Rev. 53, 56-59 (Winter 2011); *see also* Kelley, *supra* note 5, at 129.
[42] *See* Eisenberg, *supra* note 41, at 55.
[43] *Id.* at 56.

range from tightening of patent law to simply ignoring patents. The reforms cover proposals from fortification of the notice function of patents, acceleration of patent prosecution, incentivization of patent searches by companies; through creation of transparency in patent licensing practices; to limitation of the pursuit and enforcement of formal patent rights, or simply ignoring patents.[44] Further, the lack of transparency is also a result of the behavior of those participating in the sale or licensing of patents because such participants are always very careful about the information they share during negotiations.[45] They sometimes require anonymity, and they frequently demand confidentiality in the sales or licensing terms.[46] And even when the participants have not chosen to remain anonymous, neither side will have full knowledge of the other participant's revenue streams that are indicative of the value of a patent, the other's future business plans, or even the real reason one wants to buy the patent and the other sell.[47] This skittish behavior and a lack of any requirement that licenses be recorded also makes it difficult, if not impossible, to uncover if a patent has already been licensed, if a license still encumbers a patent, and if the patent still retains all, or has lost some, rights.[48] Therefore, without doubt, the uncertainties that currently surround most patent transactions make the patent market not only a murky market with respect to what rights a patent may retain, but this murkiness also affects the valuation of a patent.

D. Valuation of Patents

Thus, another difficulty, closely related to the murkiness of the secondary patent market, often encountered in any company's efforts to monetize patents is finding a way to properly identify the value of the patents and their underlying inventions.[49] One patent valuation company explains the valuation of patents as follows: "Valuing patents isn't rocket science. It is actually much more difficult."[50] Indeed, even in the context of litigation where evidence of a patent value has been collected and presented, and there are rules that can be applied to determine the value of those patents, it has still proven repeatedly difficult for a judge or jury to reach an accurate valuation of an infringed patent.[51]

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[44] *Id*.
[45] *See* Kelley, *supra* note 5, at 129.
[46] *Id.*
[47] *Id.*
[48] *Id.*
[49] Mario Benassi & Alberto Di Minin, *Playing in Between: Patent Brokers in Markets for Technology*, 39 R&D MANAGEMENT 68, 70 (2009) ("with no standardized tools with which to gauge [a patent's] . . . value and potential usage . . . , browsing through an overcrowded technology market is indeed a difficult task and requires specialized know-how").
[50] Business Model Valuation, The Lighter Side of Patent Valuation, available at: http://businessmodelvalidation.com/FormulaforCalculatingPatentValue.aspx (last visited 12/1/2011).
[51] Litigants, trial courts and juries have struggled for years to find and apply the proper way of valuing the proper damages for patents that have been infringed, and as this difficulty continues to be evident in recent court opinions. For example, in recent years, the Federal Circuit has repeatedly, and seemingly unsuccessfully, tried to explain what kind of licenses a patentee could rely on to determine a reasonable royalty damage award. *See, e.g.*, Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1327 (Fed. Cir. 2009); (court reversed a damages award because it determined that a patentee could not rely on license agreements that were "radically different from the hypothetical agreement under consideration" to determine a reasonable royalty); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 870-72 (Fed. Cir. 2010) (court reversed a damages award because evidence of royalty rates from licenses without a relationship to the claimed invention could not form the basis of a reasonable royalty calculation); Wordtech Systems, Inc. v. Integrated Networks Solutions, Inc., 609 F.3d 1308 (Fed. Cir. 2010) (court reversed a damages award because it rejected eleven of the licenses because they were running royalty licenses (the patentee had only asked for a lump sum payment) and represented far lower rates than the jury returned). The Federal Circuit, or Federal Circuit judges sitting by designation in district courts, have also had to repeatedly explain the proper methodologies and evidence to apply when awarding damages involving complex products. *See, e.g.*, Lucent, 580 F.3d at 1301 (court reversed damages award because the

Nevertheless, some have attempted to identify, in simple terms, a few factors (which hide a multitude of complexities) to take into consideration when attempting to determine the value of a patent: (1) importance of the patent; (2) the market covered by the patent; (3) the remaining life of the patent; and (4) the prior art that can invalidate the patent.[52] But even stated in such simplistic terms, it is clear that how one should go about determining the "importance" of a granted patent is, alone, as complex as determining to which market the patent might apply and thus be the context in which its "importance" should be evaluated.

First, though the importance of a patent refers both to whether the invention it protects is important and also whether the actual patent that was granted on the invention was written in a way that is enforceable and will be protected from prior art, each may need to be evaluated independently because a patent's claims can sometimes be applied more broadly than the patented invention. A patent, i.e., the document that was stamped as a granted patent by the relevant government agency, is evaluated on the basis of the scope of its claims, which describe the boundaries of what the patent rights cover. Though one might initially look to the breadth of the patent claims, believing "the broader the better," in actuality, the breadth or narrowness of the claims of the patent is a tricky consideration as, on the one-hand, broad claims give broader exclusionary rights, yet, on the other hand, such broad rights can be more easily invalidated. Indeed, one commentator has given a detailed of description factors that she has found to directly correlate to the value of a patent, and there is no evaluation of the breadth of the claims.[53] According to this commentator, the following factors should be taken into consideration when evaluating whether the contents of the four corners of the granted patent are "good:" "(1) the number of citations to the patent by third parties and by the patentee; (2) the number of citations to prior art—in particular, scientific studies and materials—by the patentee; (3) the remaining duration of the patent; (4) the number of times the patent has been transferred; and (5) the number of claims contained within the patent."[54]

Second, the patented invention, itself is also used as an indicator of the patent's value. In considering the actual patented invention, what often impacts its value is whether it is in a crowded industry or field. If the patented invention shares a crowded technological space, it will need to be covered by the patent with narrow claims, which can be considered less valuable than an invention in a new or "uncrowded" industry or field that can be covered in a patent with

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entire market value rule was should not have been applied to a tiny feature of one part of a much larger software program because that rule is available only where "the patent-related feature is the basis for customer demand"); Cornell Univ. v. Hewlett-Packard Co., 609 F. Supp. 2d 279 (N.D.N.Y. 2009) (Rader, J.) (court granted the defendant's JMOL, or alternatively granted a remittitur on a jury damage award, because the jury improperly relied on an expert witness' improper testimony that applied the entire market value rule to infringing technology that was just "a small part of the instruction reorder buffer, which is part of a processor, which is part of a CPU module, which is part of a 'brick,' which is itself only part of a larger server."); IP Innovation L.L.C. v. Red Hat, Inc., 705 F. Supp. 2d 687 (E.D. Tex. Mar. 2, 2010) (Rader, J.) (court strikes expert's report because it improperly inflated both the royalty base and the royalty rate by relying on irrelevant or unreliable evidence and by failing to account for the economic realities of the accused component as part of a larger system). And most recently, the Federal Circuit, though claiming it had only been "tolerant" of cases before it that had allowed expert opinions to set reasonable royalty rates through application of a calculation that applied 25 percent of expected profits for an infringing product, in January 2011, the Federal Circuit ruled that expert opinion based on the so-called "25 percent rule" was now unreliable and inadmissible. Uniloc USA Inc. v. Microsoft, 632 F.3d 1292, 1318 (Fed. Cir. 2011).

[52] *See* WORLD INTELL. PROP. ORG., *Assessing the Value of a Patent: Things to Bear in Mind*, available at http://www.wipo.int/sme/en/documents/valuing_patents.htm (last visited 12/1/2011).

[53] *See* Kelley, *supra* note 5, at 125-126.

[54] *Id*.

broader claims. But if the patent is protecting a significant "first-of-its-kind-technology" that can be used to dominate an industry, block competitors and create an exclusive market-niche for the patent holder, the patented invention, even if only in a single patent, will have a high value. Along similar veins, but requiring multiple inventions (which indicates less value per invention), a group of inventions that improve upon on or fence in a competitor's core invention can also be valuable if they can force that competitor to pay a license fee if it wants to expand its business or improve its product without infringing one of the group of patents. Another well-known factor for evaluating an invention is its context in time, since a breakthrough or disruptive invention that is patented too late will lose value as time passes, just as an invention patented too far ahead of its time can become prey to the limited exclusionary rights granted by the Constitution.[55]

In addition, market factors must also be taken into consideration when evaluating the patent. And though by definition, a patent can only be granted on useful products, whether the covered invention can becomes a reality in the market will increase the value of the patent, in particular if it is transformational.[56] Further related to the market is the dollar value of the patented invention in its market. The valuation of a patent will depend on the total dollar amount each product practicing the invention can garner per product, the size of the market for that product, as well as the amount of market share that same product can capture.[57] Put another way, the total money that can be extracted by a patented invention during its lifetime is considered an indicator of the value of the patent and this takes into consideration the projection of the market share in dollars that the patented invention can earn over the life of the patent, and any subsequent improvement patents over which the original patent might tangentially extend.[58] Relatedly, whether someone in the market has already affirmatively asked to or purchased or licensed the patent is another obvious indicator of the value of the patent, and whether that licensee is seeking or sought an exclusive or non-exclusive license. An exclusive license, by itself, will command the most money as compared to a non-exclusive license, because by granting an exclusive license, the patent owner and all others will be excluded from competing in the market. However, though, a patent owner will be able to charge less for each of one of the multiple non-exclusive licenses it can grant, it will also be able to grant a larger number of those non-exclusive license. Thus, how to value whether the patent will most valuable through the grants of exclusive versus non-exclusive licenses will require a good market analysis. Similarly, whether a third party would be willing to purchase the patent in question with a royalty-free non-exclusive license granted back to the patent holder plus a percent of the royalty that the purchaser earns on the licensing of the patent(s), in a good indicator of the patent's value.[59] Along the same lines, if a financial institution would be willing to lend the patent holder money by using the patent as collateral, this also speaks to the value of the patent.[60]

Finally, one last, often forgotten, factor that can affect the value of a patent is the U.S. government. Sometimes the U.S. government can step in and value a patent for a patent holder if the U.S. government requires use of the patented technology. The U.S. government cannot, by law, infringe a patent, but it also cannot "take" property belonging to another without providing

[55] *See* Burdick, *supra* note 35.
[56] *Id*.
[57] *Id.*
[58] *Id.*
[59] *Id.*
[60] *Id.*

just compensation.[61] "Just compensation" for patents is a determination of what a reasonable royalty is for the patented invention.[62]

In conclusion, the valuation of a patent is a complex matter that can, itself, cost money to determine. However, despite its complexities, there is no question that a useful and marketable invention covered in good patent can generate money on its own without the patent holder ever having to implement the patent into a tangible, saleable good, because the patent itself is now a tangible, saleable good in the secondary patent marketplace.

IV. Confronting the Challenges of Being Pursued in the Secondary Patent Marketplace

However, this secondary patent marketplace has now also become a market in which operating companies are being pursued by companies that acquire patents solely for the purpose of licensing. As of January 1, 2011, over 380 distinct NPEs have been identified and profiled by PatentFreedom, and this number continues to increase.[63] Since 1985, these NPEs have been involved in litigation with over 5,000 different operating companies in over 4,000 actions.[64] And it would seem self-evident that when a PAE[65] asserts a patent against an operating company, it does not want to partner or create: it wants money. PAEs' practices have been described as a tax on an operating company, yet there is irony that some now believe that operating companies may need to sometimes assert their own patents to counter-balance the "tax" of a PAE's practices.[66] Regardless, it has appeared that despite a PAE's observable desire for money, it also likely does not want to shut down an operating company either, as many PAEs have multiple patent portfolios that they may want to license. A PAE may assert one patent portfolio against an operating company at one moment in time, and then later, that same PAE may also assert a different portfolio against the same operating company. Similarly, if a running royalty license is negotiated between a PAE and an operating company, the PAE will need the company to continue producing revenue to pay those running royalties.

Therefore, turning to an increasingly common scenario where the entity asserting its patent against a company has no products or business other than to assert its patents and demand a license, this paper reviews the associated challenges and offers some suggestions. Unfortunately, because PAEs have no products that can be counter-attacked with patents,[67] yet they are entitled by law to assert their patents against any others that may infringe their patents, there are no perfect methods or defenses against their assertions.

A. Gathering Intelligence

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[61] *Id.*
[62] 35 U.S.C. § 1498.
[63] *See* Patent Freedom Research, available at https://www.patentfreedom.com/research.html.
[64] *Id.*
[65] PAEs will be used to encompass NPEs in the remainder of this paper.
[66] *See* Myhrvold, *supra* note 2, at 4; *see also* Sandburg, *supra* note 31.
[67] Christopher Harkins, *Fending Off Paper Patents and Patent Trolls: A Novel "Cold Fusion" Defense Because Changing Times Demand It*, 17 ALB. L.J. SCI. & TECH. 407, 442-43 (2007) ("No one can deny the presence of a licensing disequilibrium when a plaintiff in a patent suit has no products of its own to defend in a counterclaim of infringement, which vitiates the possibility of an injunction that keeps its products out of the marketplace. Therefore, the trolls have no interest in a standard cross-licensing agreement, and by removing these downsides from the typical business calculus that a plaintiff must weigh before bringing suit, the environment is conducive for a patent owner to roll the dice and 'game' the patent system in court.").

If pursued by a PAE (typically the first contact is a letter containing an "offer to license"), the absolute first requirement is to determine whether to ignore the PAE's threats. One the one hand, some have advocated that ignoring a PAE has had the fortunate result of the PAE disappearing from the market before it can extract monies or sue.[68] This tack has been identified as the "silent treatment" or "walled city defense," where the pursued company essentially refuses to respond to a threat from a PAE.[69] Others, however, strongly counsel against ignoring any threats from PAEs.[70] Thus, in making the decision on how to respond to a threat that has been received from a PAE, it is elementary that the threat must be addressed by in-house counsel and management.[71] In-house counsel should gather all intelligence it can gather on the PAE, and then management must be alerted and given the gathered intelligence on the PAE. The minimally requisite intelligence that one should gather on the PAE will relate to its level of professionalism, its reputation for enforcement, its funding, its history of prior licensing and litigation, whether it has already retained law firms, whether those law firms may be conflicted against the company, the typical behavior of the PAE with regard patience in negotiations, whether it has asserted the same patent(s) against others, and the number of patents owned or controlled by the PAE.[72]

B. Settling Cheap

Next, a company may need to decide whether to fight or settle "cheaply." If the company's chosen decision is to settle cheaply, because the cost of fighting can often exceed an "early licensing offer"[73] from a PAE, it may choose to focus on business negotiations. Business negotiations typically focus on what the operating company believes the PAE should be entitled to seek in licensing fees based on the amount of product the operating company manufactures or sells, the location of the manufacturing and sales (if these do not occur in the country where the asserted patent issued), and the reasonableness of the percentage of revenue the PAE is seeking. However, if the operating company does not want to settle, but decides to fight, there are some strategies, that though not complete solutions, can assist in lowering the licensing fee the operating company decides to pay.

C. Assertions of Non-Infringement

If choosing to fight, at least for some period of time, an operating company can take the time to analyze it products and the asserted claims of the PAE's patents to show why it does not

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[68] Business Model Validation, *How Sun Tzu Would Outflank Patent Trolls*, available at: http://businessmodelvalidation.com/HowSunTzuWouldOutflankPatentTrolls.aspx (last visited 12/1/2011) ("the silent treatment may be an effective strategy if you believe your firm is at end of a long list of targets[,]" and "when a company—as a matter of firm-wide policy—refuses to settle with patent trolls. . . .this could be a sound policy as failure to mount a strident defense would result in such firms being targeted for stick licensing agreements in an ever-growing number of cases.").

[69] *Id.*

[70] Quinn, Emanuel, Urquhart & Sullivan, LLP, *Best Practices for Defending Against Patent Trolls, available at:* http://www.jdsupra.com/documents/60ca1e29-8ea5-4db6-ae4b-b5a562b38fc0.pdf (last visited 12/1/2011) [hereinafter "Quinn"].

[71] Joel Kauth, *Keeping the Patent Trolls at Bay – Defendant Your Location-based Patents and Your Business*, Directions Magazine (April 18, 2011), *available at:* http://kppb.com/kppb/index.php?option=com_content&view=article&id=81&catid=3&Itemid=29 (last visited 12/1/2011).

[72] *See* Business Model Validation, *supra* note 68.

[73] Many PAEs will approach an operating company with an "early" licensing offer, and threaten to increase it if a certain amount of time goes passes without the parties reaching a licensing agreement.

infringe. Of course, because the initial contact from the PAE does not usually contain an identification of products it believes the operating company is infringing, or an identification of the asserted claims of the asserted patents, those must be obtained. Once obtained, analysis of the PAE's assertions, the operating company's accused products, and the asserted claims of the PAE's asserted patents will likely require in-house experts, patent attorneys, and possibly the use of outside consultants. Company resources will also be needed in order to understand the product(s) being accused of infringement and to prepare an explanation for why each accused product does not infringe. At this time, it should be considered whether a non-infringement (an invalidity) opinion letter should be obtained in the event negotiations with the PAE stall, litigation ensues, and the PAE alleges willful infringement.

However, if the PAE is holding and asserting patents that are essential to practice a standard set by a standards setting organization ("SSO"), and the operating company's accused product must practice that standard, then a different approach may need to be taken. One could analyze the standard(s) the PAE has asserted are practiced by its asserted patent claims to show why the PAE's patent in question does not practice the standard in question (assuming the SSO has not declared the PAE's asserted patent essential). In addition, one should also look into whether the patent holder, at the time the patented technology was being considered for inclusion into a standard, made any commitments to that SSO to license its patents under reasonable and non-discriminatory ("RAND") terms.[74] If a commitment to license the PAE's essential, asserted patents on RAND terms was made, then the operating company should raise this requirement and find out what those RAND terms are. A PAE's failure to license those patents on RAND terms could be considered an unfair method of competition and an unfair act or practice.[75] Unfortunately, however, under section 5 of the FTC Act, which was used against one PAE that refused to comply with the original patent holder's agreement to license its patents that were declared essential to a standard, there is currently no provision for a private cause of action if that statute is violated. One would have to rely on the Federal Trade Commission to issue a complaint under that statute to enforce the original patent holder's agreement to license the patent under RAND terms.

D. Assertions of Invalidity and Unenforceability

Alongside, or as alternative to non-infringement arguments and RAND investigations, a company can also seek to invalidate the asserted patent. In taking the step of working to invalidate a PAE's asserted patent or determine if it is unenforceable due to inequitable conduct, outside consultants, patent search firms, and patent attorneys may also be necessary as the PAE's asserted patent claims will need to be compared to prior art. A strategy that is not used frequently enough is to seek cooperation with others.[76] Other operating companies may own or know of prior art references or products in the same field as the asserted patent. A simple phone call to an in-house counsel at another company that operates or has operated in the same field as

[74] J. Thomas Rosch, Commissioner, *Patent Trolls: Broad Brush Definitions and Law Enforcement Ideas* 4 (May 31, 2008), http://www.ftc.gov/speeches/rosch/080531roschlecg.pdf (last visited 12/1/2011) (Commissioner Roth described how the original owner of Ethernet patents that were later purchased and asserted by a PAE had actually originally committed to the SSO to license the patents in question under RAND terms).
[75] 15 U.S.C. § 45.
[76] *See* Business Model Validation, *supra* note 68.

the PAE's asserted patent could open a gold mine of prior art, and such a strategy should be more frequently employed.

However, even if the operating company locates good prior art, it may still need to carefully consider how much prior art, if any, it should disclose to the PAE. The reasons for withholding the prior art from the PAE are two-fold: First, the PAE may still have pending patent applications that are in the same family as the asserted patent that it could attempt to amend to avoid prior art that is disclosed to it in "licensing" negotiations with the operating company. Second, the PAE may eventually litigate those patents against the operating company in question, or the PAE may be in the midst of litigating those patents against other companies. One may want to wait until litigation to use its invalidating prior references against the PAE.

However, if the prior art that the pursued operating company has located is extremely good, it might want to consider filing an *ex parte* reexamination of the PAE's asserted patent(s). To be able to file a reexamination, the requester must be able to show "a substantial new question of patentability affecting any claim of the patent concerned . . . ."[77] This does not, however, mean that the prior art has to be entirely new and unseen by the U.S. Patent and Trademark Office ("USPTO"): prior art that has already been examined by courts and the USPTO has been held to be a sufficient basis for a substantial new question of patentability.[78]

E. Seeking Upstream Indemnification and Apportionment

Beyond seeking to prove non-infringement, or that the asserted patent is invalid, there are also other strategies that can be useful depending on where in the chain of commerce the attacked company in question. Because PAEs do not want to license a company upstream that could exhaust its patents through a first authorized sale of a licensed product to a downstream entity, PAEs will start by asserting their patents against the downstream entities. If the attacked company is downstream, it should determine if it can seek indemnification upstream,[79] but this presumes that it has been able to negotiate an indemnification agreement from its supplier. If there is no indemnification agreement on which to rely, then the operating company will likely be confronted with a dispute over the value of the patented invention, a.k.a. apportionment, that is being practiced by the accused product. The attacked operating company will have to be adamant that the entire market value rule does not apply to revenue on which the PAE is basing its royalties demand by pointing to recent case law in which the courts made clear that a tiny feature of a part of a larger component, that may even be a part of a much larger product, cannot be the revenue basis for the royalty fee.[80]

F. Counter-Attacking

[77] 35 U.S.C. § 303(a)(2002) ("substantial new question of patentability" is not defined by the statute).
[78] *In re* Swanson, 540 F.3d 1368 (Fed. Cir. 2008). This needs to be contrasted with the new "post-grant review" that has been enacted through the Leahy-Smith America Invents Act (H.R. 1249), which can be initiated by any person other than the patent owner within 9 months of the issuance or reissuance of the patent before the USTPO. Under the new law, (section 6 §§ 321-329), any ground of invalidity where it is more likely than not that at least one challenged claim is unpatentable. However, a challenger will be estopped to re-assert art that was raised or reasonably could have been raised in another USPTO proceeding, district court or the International Trade Commission.
[79] *See* Business Model Validation, *supra* note 68.
[80] *See* Lucent Techs. Inc. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009)

Whether in response to a lawsuit or by filing a declaratory judgment action, an operating company can always litigate the validity of the PAE's asserted patent claims and challenge their enforceability through assertions of inequitable conduct. Of course, the operating company will also assert non-infringement. And though the cost of litigating will likely be in the several millions of dollars, if the operating company wants to send a strong message and feels confident in its non-infringement, invalidity or unenforceability arguments of the PAE's asserted patents, it may be worth spending the dollars on litigation instead of paying the licensing fee right out of the proverbial batter's box. Of course, whether an attacked operating company decides to litigate will likely depend on the amount of money the operating company is willing to spend in litigation versus the amount of licensing fees the PAE is demanding. And if a decision to sue is made, one must consider whether it can assert additional claims such as patent misuse, if the PAE has misused its patent through monopolistic or abusive practices before the USPTO; and claims for tortious interference with business relationships, if the PAE has been interfering with, for example, the operating company's relationships with its customers.[81] If the attacked company is successful in proving non-infringement or in invalidating the PAE's asserted patents, the money will have been well spent on litigation. Alternatively, and also with a price tag, the operating company can turn to a defensive patent aggregator to join in order to get cooperation among its members to perhaps pool together resources to purchase the patent(s) that the PAE is asserting.[82]

In conclusion, though there are no absolute defenses to a PAE currently available to an operating company, a PAE's business model makes it susceptible to numerous strategies that can lower the cost that a PAE could attempt to extract. In general terms, PAEs need operating companies against whom to assert their patents in order to survive. The PAEs also need their patents to remain uninvalidated, and threats to their patents can give them a moment's pause.

V. Litigation Patent Reforms Targeted Towards PAEs

Lastly, in the context of litigation, there is one patent reform that may be helpful against PAEs because it will make litigation more financially burdensome and expose the PAE's patents to invalidation more frequently. This new patent reform provision is called the "joinder provision," and it took effect on the date of the signing of the Leahy-Smith America Invents Act (H.R. 1249) ("AIA") into law. This section 299 of Section 19 of the AIA will likely make litigation much more expensive for PAEs because it will prohibit a PAE from joining into a single lawsuit any defendant for which any right to relief asserted does not arise out of the same transaction or occurrence, and with which there are no questions of fact common to the other. This rule also applies to any subsequent attempts to have actions consolidated for trial. Thus, instead of filing a single lawsuit where multiple defendants with multiple products are accused of infringing patents, the PAE will be required to file single lawsuits with many fewer defendants. A PAE's lawsuit will likely have to be limited to only those defendants who are infringing the same patent through the same actions or products.[83] It is hoped that this new provision will place

[81] *See* Quinn, *supra* note 70.
[82] *See* Business Model Validation, *supra* note 68.
[83] As written it is unclear whether the "same transaction or occurrence" will limit a single lawsuit to one product and one patent, or just one product. The text of the new provision reads: ''(a) JOINDER OF ACCUSED INFRINGERS.—With respect to any civil action arising under any Act of Congress relating to patents, other than an action or trial in which an act of infringement under section 271(e)(2) has been pled, parties that are accused infringers may be joined in one action as defendants or

a prohibitive financial burden on PAEs while at the same time exposing the validity of the PAE's asserted patent(s) in every filed lawsuit. This provision should, at least, take away the benefit of economies of scale that has been largely in favor of the PAEs in the past.

VI. Conclusion

In conclusion, whether the existence of the secondary patent marketplace is good or bad is hotly debated. Some might opine that the existence of the secondary patent marketplace has transformed patents into a new tax on operating companies that are not only being asserted by PAEs, but also by operating companies, merely to survive. Some might also opine that this new "tax" is also increasing the cost to the end consumer. Others may laud the secondary marketplace as a market that has opened up the financial benefits of innovation to inventors who do not have the funding to turn their patented inventions into products and the business connections to channels through which to distribute and sell those products to the public. To whichever view one ascribes, though, that the secondary patent marketplace exists and its effects are felt by all operating companies cannot be debated. The question that must be addressed is how to respond and react to this market and its players. Hopefully, this paper has provided insight and exposure into this dimly lit market.

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counterclaim defendants, or have their actions consolidated for trial, or counterclaim defendants only if—''(1) any right to relief is asserted against the parties jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process; and ''(2) questions of fact common to all defendants or counterclaim defendants will arise in the action." Leahy-Smith America Invents Act (H.R. 1249), Section 19, § 299.