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LOT NETWORK TOO BIG FOR ANTITRUST?

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LOT NETWORK Too Big for Antitrust?

by ROBERT YANG*

ABSTRACT

While companies, inventors, institutions, and other patent holders have generally monetized their patents in some way, some entities have found that asserting patent rights is a lucrative alternative to traditional avenues of intellectual property (“IP”) monetization. Patent assertion lawsuits, especially those initiated by Patent Assertion Entities (“PAE”), have grown at an exponential rate over the last decade. These lawsuits have caused disruptions from industries ranging from pharmaceuticals to the auto-making industry through damage awards in litigation and “preempting” companies to divert funding towards potential future litigation. The License on Transfer Network (“LOT Network”) is one of many solutions developed to combat PAE — specifically by cross-licensing patents between members of the pool. Google and some patent pooling systems are no strangers to violating antitrust laws. This paper looks at how an attacking PAE or an antitrust watchdog would react to this particular type of licensing agreement.

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I. Introduction

Patent troll activity — the enforcement of patent rights against an accused infringer by a nonpracticing entity — has been on the rise for some time. In response, operating companies have developed numerous strategies to protect themselves against these Patent Assertion Entities (“PAE”). The License on Transfer Network (“LOT Network”) is but one of these attempts to combat the rising PAE threat. The LOT Network tries to reduce PAE litigation by removing the number of viable patents available to PAEs. Member companies essentially enter into a conditional cross-licensing arrangement; this functions to deter improper infringement claims since the patent cannot be asserted against other LOT members.¹ This paper will look at how antitrust regulators or attacking PAEs might react to this particular licensing arrangement.

This note is divided into three sections. Section I will explain the LOT Network model and how it proposes to combat the PAE problem. Section II will provide a general framework behind the crossroads of Antitrust and Patent Law. Next, Section III will explain how this framework is applied to the LOT network. Finally, we conclude that the pro-competitive benefits of the LOT Network should help it avoid any serious antitrust issues.

To “promote the progress of science and useful arts, the U.S. patent system gives inventors a limited monopoly to exploit their invention.”² Essentially, patent holders gain a legally enforceable right to commercially exploit their invention — usually by excluding others from practicing the patented invention or licensing these rights to another entity.³ However, some patent right holders, either owners or assignees, do not utilize the patent for research or manufacture. Instead, these entities “pursue other goals of interest to their founders and investors.”⁴ These non-practicing entities fall under two broad categories: (1) research institutions that license out

1. See LOT Network, <http://www.lotnet.com> (last visited Mar. 24, 2016) [hereinafter LOT Website].

2. U.S. CONST. art. I, § 8, cl. 8.

3. See USPTO, GENERAL INFORMATION CONCERNING PATENTS (2015), <http://www.uspto.gov/patents-getting-started/general-information-concerning-patents>.

4. Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 1 (2011).

innovations instead of manufacturing products and (2) entities that exist to acquire patents for the sole purpose of asserting against operating companies.⁵

The second category is sometimes referred to as PAEs, or colloquially, patent trolls.

In the words of former U.S. President Barack Obama, PAEs “. . . don’t actually produce anything themselves . . . [but] just trying to essentially leverage and hijack somebody else’s idea and see if they can extort some money out of them.”⁶ PAEs do not develop or practice patents themselves, and instead acquire patents for the sole purpose of obtaining profit through patent assertion litigation.⁷ In other words, the PAE business model is based solely on “purchasing and asserting patents against manufacturers already using the technology, rather than developing and transferring technology.”⁸ In this broken framework, some observers believe that abuse by PAEs is just a symptom of the current patent system’s defects.⁹

The year preceding this writing, 2015, was the second biggest year for patent suits. By one estimate, patent assertion litigation in 2015 saw the most patent disputes filed in U.S. history — Unified Patents estimates that 5,769 were filed in Federal Court and 1,796 disputes were filed with the Patent Trademark and Appeals Board at the U.S. Patent and Trademark Office (“USPTO”).¹⁰ For reference, these lawsuits account for two-thirds of all cases filed in the Federal District Court system.¹¹ Another report found that between 2005 and 2014, PAE initiated lawsuits increased 500%.¹² Today,

5. *Id.* at 1; see also 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, 1572 (2009) (“The term NPE generally refers to a patentee that does not make products or ‘practice’ its inventions.”).

6. See *Watch: President Obama Answers Your Questions in a Google+ Hangout*, THE WHITE HOUSE (Feb 2, 2013), <https://www.whitehouse.gov/blog/2013/02/14/watch-president-obama-answers-your-questions-google-hangout>.

7. See FED. TRADE COMM’N, *THE EVOLVING IP MARKETPLACE* 8 (2011), www.ftc.gov/os/2011/03/110307patentreport.pdf; see also Marianna Galstyan, *Who Are Patent Trolls & How Do They Work?*, INVESTOPIA (July 15, 2015), <http://www.investopedia.com/articles/investing/071515/who-are-patent-trolls-how-do-they-work.asp>.

8. FED. TRADE COMM’N, *supra* note 7.

9. See, e.g., Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117 (2013); see also Joshua D. Wright & Douglas H. Ginsburg, *Patent Assertion Entities and Antitrust: A Competition Cure For A Litigation Disease?*, 79 ANTITRUST L.J. 501 (2014).

10. *2015 Patent Dispute Report*, UNIFIED PATENTS (Dec. 31, 2015), <http://unifiedpatents.com/2015-year-end-report>. Note that Unified Patents also includes litigation initiated by PAEs or Declaratory Judgments initiated by operating companies against PAEs.

11. *Id.*

12. *PatentFreedom: Latest NPE Litigation Activity Update*, ARTICLE ONE PARTNERS BLOG (Apr. 8, 2016), <https://www.articleonepartners.com/blog/patentfreedom-latest-npe-litigation-activity-update/>.

those lawsuits are estimated to cost U.S. publicly traded firms roughly \$80 billion annually — with \$29 billion in direct litigation expenditures.¹³ Indeed, the PAE problem can only get worse as PAEs continue to acquire more patents, usually from operating companies.¹⁴

In the absence of meaningful action by Congress, the USPTO, or the judicial system, private entities have formulated their own solutions in response to the PAE problem.¹⁵ Generally, these “alternative licensing alternatives” can be categorized as: (1) defensive patent aggregators (“patent pools”), (2) patent pledges, and (3) patent troll insurance.¹⁶ Patent pools are private contractual agreements where separate patent owners transfer their rights into a common holding company to jointly license their products.¹⁷ Patent pledges are voluntary public commitments made by companies to license their own patents in a particular way in order to support open innovation.¹⁸ Recently, some defensive patent aggregators and some organizations for advertisers began offering litigation insurance against PAE initiated lawsuits.¹⁹

The LOT Network is unique that it is a conditional cross-licensing arrangement that falls somewhere between the alternative-licensing categories of cross-licensing agreement, patent pools, and patent pledges. Cross licensing agreements are similar to patent pools, except that instead of a common holding company, companies mutually execute overlapping patent rights to each other.²⁰ As explained below, this note will not differentiate between the different technology licensing arrangements.

The LOT Network was designed to curb abuse by PAEs by reducing the amount of viable patents available to PAEs. Under the LOT Agreement,

13. James E. Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387 (2014).

14. Dan McCurdy, Sr. Vice Pres., RPX presentation at the 2015 IP Counsel Café Spring Meeting in Palo Alto, Cal. (Apr. 22-24, 2015); LOT Website, *supra* note 1; *see also* Ewing & Feldman, *supra* note 4 (Intellectual Venture, for example, obtains patents from turnkey licensing services for small- to medium-sized businesses that they then assert against other operating companies while paying the licensor a cash payment plus a percentage of income earned.).

15. *See* Marta Belcher & John Casey, *Hacking the Patent System: A Guide to Alternative Patent Licensing for Innovators*, JUELSGAARD INTELLECTUAL PROPERTY & INNOVATION CLINIC (May 2014), https://www.eff.org/files/2014/05/29/hacking_the_patent_system.pdf.

16. *Id.*

17. Robert P. Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organizations*, 84 CALIF. L. REV. 1293, 1340 (1996); *see also* Ewing & Feldman, *supra* note 4.

18. *See* Jorge L. Contreras, *Patent Pledges*, 47(3) ARIZ. ST. L.J. 543, 546 (2015).

19. *See* Belcher & Casey, *supra* note 15.

20. Steven C. Carlson, *Patent Pools and the Antitrust Dilemma*, 16 YALE L.J. 360, 369 (1999).

member companies grant each other a license to all of their patents, but that license only becomes effective when the patent leaves the network and falls into the hands of a PAE.²¹ As the LOT Network gains members, this effect will multiply as more companies bring their patent portfolios into the fold.

This essay explores the LOT Network and how, like some cross-licensing arrangements, it has the potential to be anticompetitive for entities outside the LOT Network. First, patent acquisitions are subject to antitrust laws.²² Although antitrust laws do not impose a general prohibition against the alienability of property, they do prohibit discreet acquisitions that threaten to create or anticompetitively facilitate the exercise of market power.²³ Second, the U.S. Department of Justice (“DOJ”) and the Federal Trade Commission (“FTC”) [collectively herein “Agencies”] apply the same antitrust analysis with respect to patents (and other forms of intellectual property).²⁴ Specifically, the Agencies evaluate anticompetitive effects under the rule of reason by finding market power, anticompetitive effects, and proof that the anticompetitive effects outweigh the pro-competitive benefits.²⁵

Antitrust laws sometimes prevent the assertion of certain intellectual property rights.²⁶ However, the FTC has recognized that while IP licensing arrangements are “typically welfare-enhancing and pro-competitive, antitrust issues may nonetheless arise.”²⁷ With big name members (some of which are probably competitors) like Google, Uber, Dropbox, Canon, JP Morgan Chase, Ford, and Solar City pooling more than 327,000 worldwide patent assets (including over 100,000 U.S. issued patents), the LOT Network may have market power in a properly defined market.²⁸

21. See *LOT Agreement: Frequently Asked Questions*, LOT NETWORK, <http://lotnet.com/faq/> (last visited Mar. 8, 2016) [hereinafter LOT Agreement FAQs].

22. See *SCM Corp. v. Xerox*, 645 F.2d 1195, 1205 (2d Cir. 1981) (“Patent acquisitions are not immune for the antitrust laws.”).

23. See generally FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR COLLABORATION AMONG COMPETITORS (2000), https://www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf.

24. See U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 2 (1995), <https://www.justice.gov/sites/default/files/atr/legacy/2006/04/27/0558.pdf> [hereinafter IP Licensing Guidelines or Guidelines].

25. See Robin Feldman, *The Open Source Biotechnology Movement: Is it Patent Misuse?*, 6 MINN. J.L. SCI. & TECH. 117 (2004).

26. See, e.g., *Handgards, Inc. v. Ethicon, Inc.*, 601 F.2d 986, 996 (9th Cir. 1979) (condemning bad faith and objectively baseless patent assertion by a monopolist).

27. IP Licensing Guidelines, *supra* note 24, at 7.

28. Email from LOT Network Administration, Lot Network, Inc., to Robert Yang, Author, UC Hastings (Feb. 2, 2016, 14:25 PST) (on file with author).

If the LOT Network does have market power, it will be weighed against the pro-competitive benefits. Another argument is that the LOT Network might reduce competition, restrict supply, or have an impermissible field of use restriction. However, licenses are conditional; supply might not be impacted unless there is a transfer of patent to a PAE. The LOT Network does not permit PAEs (a defined term) from entering the network, which might be seen as an impenetrable barrier to competition at first glance — after all, each and every entity that meet this requirement are per se excluded. But, PAEs do not actually produce anything — they are not competitors.

II. The LOT Network

In 2004, Google, as part of a coalition of tech companies, launched the LOT Network in an effort to disarm PAEs. Google describes the LOT Network as “an industry-led networked, royalty-free patent cross licensing agreement for transferred patents . . . [where] every company that participates grants a license to the other participants . . . when patents are transferred to non-participants.”²⁹ The program is meant to protect participants against patent attacks brought by PAEs that obtains a LOT-pledged patent, while preserving each member’s full use of their retained portfolio.³⁰ The license functions like a covenant that runs with the land and attaches to the patent so it will always be enforceable if obtained by a PAE. Also, the LOT Agreement is administered by LOT Networks Inc., an independent third party company.³¹

The LOT Network is unique in the sense that it has substantial aspects of a patent pool, a traditional cross-licensing arrangement, and a patent pledge. The LOT Network is similar to a pool in the sense that all members grant each other a conditional cross-license, but the patents are only fully vested upon a “triggering event” — mainly when control of a patent becomes owned or controlled by a PAE. Also, “PAE” is a defined term in the LOT Agreement. PAEs or “Assertion Entity” is defined as an entity and each of its affiliates who collectively derive more than half of their total consolidated gross revenue over a span of 12 months from patent assertion (another defined term).³²

29. *Google Patent Programs: LOT Agreement*, GOOGLE, <https://www.google.com/patents/licensing/lot/> (last visited Mar. 8, 2016).

30. *Id.*

31. *Id.*

32. *LOT Agreement Version 2.0*, LOT NETWORK (Nov. 24, 2015), <http://lotnet.com/download-lot-agreement/> (“‘Assertion Entity’ means an Entity and each one of its affiliates if such Entity and all its Affiliates collectively derived from Patent Assertion more than half of their total consolidated gross revenue measured over the full twelve (12) months preceding a particular date

Each arrangement operates differently and has different tradeoffs for both companies and its impact on innovation. The LOT Network can be seen either as a cross-licensing agreement, a patent pool, or a patent pledge (since full licenses are technically not given out up-front). As the IP Licensing Guidelines does not make a meaningful distinction between cross-licensing and patent pools, the remainder of this note will not distinguish between these forms.

Defensive patent aggregators (or patent pools), which include Unified Patents and RPX, use membership fees (or pulled resources) to buy patents to give perpetual licenses to its members to prevent subsequent patent holders from suing for infringement.³³ This methodology ensures that the patent can never be asserted against the pool participants, as each member now possesses a perpetual license. These entities are differentiated from PAEs because they only buy patents solely for defensive purposes and pledge to never offensively assert the patents they own.³⁴ Also, some pools can challenge, invalidate, or amass prior art on patents.³⁵ These companies, as well as other professional organizations, also provide insurance against patent troll litigation.³⁶

In contrast, patent pledges are usually more informal self-limiting commitments. These are voluntary public commitments made by companies to license their own patents in a particular way in order to support open innovation.³⁷ Traditionally, these are non-contractual commitments made to the public at large by a patent holder in the absence of direct compensation.³⁸ One prominent example was Tesla Motors decision to not “initiate patent lawsuits against anyone who, in good faith, wants to use [Tesla’s] technology.”³⁹ Other entities have initiated multilateral pledges where companies opt into networks that have the same pledge — these include the Defensive Patent License, Open Innovation Network, Twitter’s Innovator’s

... In addition, an Entity and each of its Affiliates will be deemed to be an Assertion Entity if the Entity or any of its Affiliates has, as of a particular date, a goal or plan approved by senior management or a senior executive (or under which the Entity has begun to receive revenue) to derive from Patent Assertion, either directly, or indirectly through one or more of its Affiliates, more than half of the total consolidated gross revenue of such Entity and its Affiliates collectively in any twelve (12) month period including or after that particular date.”).

33. See Belcher & Casey, *supra* note 15.

34. *Id.* at 4.

35. *Id.*

36. *Id.* at 21.

37. See Contreras, *supra* note 18.

38. *Id.*

39. Elon Musk, *All Our Patents Belong to You*, TESLA BLOG (June 12, 2014), <http://www.teslamotors.com/blog/all-our-patent-are-belong-you>.

Patent Agreement, The Patent Pledge, and The LOT Network.⁴⁰ Patent pledges can make powerful public statement about a company's value, but can also lower the patent's market value.⁴¹

LOT Network functions much like a hybrid patent pool and pledge where each member grants a license to each other, but becomes effective only upon a "triggering event." The LOT Network also functions like a pledge by having members promise that every patent they own will be subject to a license if sold to a PAE. Members must grant, in a written contract, a portfolio-wide, present, fully vested and irrevocable license to all other LOT participants.⁴² This license is "worldwide, royalty-free, non-exclusive, non-sublicensable, [and] non-transferable."⁴³ In other words, members mutually grant each other a full but conditional license to their entire patent portfolio.

However, the LOT Agreement does not require members to cross-license each other in the traditional sense.⁴⁴ Member companies can still cross-license to each other if they so choose, but there is no requirement in the LOT Agreement itself. There are two exceptions for when the license does not become effective: (1) when the patent is transferred to another LOT member, or (2) when a transfer is part of a legitimate spinout or change of control to a non-PAE.⁴⁵ The license condition is in place to protect against patent litigation whenever a PAE acquires a LOT-pledged patent to assert against members of the LOT Network. Other than that restriction, LOT members retain all patent rights and can sell, assert, or license their patents to anyone (both in and out of the LOT Network), unless the buyer or exclusive licensee is or becomes a PAE.⁴⁶

Unlike traditional patent pledges, LOT members pay an annual fee based on their annual revenue in order to cover the costs of the program. The annual fees ranges from \$1,500 to \$20,000 (at the time of this writing) and are generally low to encourage participation.⁴⁷ Members must also sign the same LOT Agreement, which is nonnegotiable.⁴⁸

40. See Belcher & Casey, *supra* note 15, at 10.

41. *Id.*

42. See LOT Agreement Version 2.0, *supra* note 32.

43. *Id.*

44. See LOT Agreement FAQs, *supra* note 21.

45. *Id.*

46. *Id.*

47. *Id.*

48. Email from Ken Seddon, LOT Network CEO, Lot Network, Inc., to Robert Yang, Author, UC Hastings (Feb. 25, 2016, 15:24 PST) (on file with author).

LOT members can withdraw at any time, maybe to preserve an exclusive property right. LOT members are required to give six months' notice to withdraw, but get to keep the LOT licenses it acquired during its membership (except those that are transferred to PAEs after its withdrawal).⁴⁹ Likewise, the pre-withdrawal patents are still subject to the obligations of the LOT Agreement, but only to members who were active at the time of withdrawal.⁵⁰

Primarily, the LOT Network was designed to protect members from privateering and reduce the number of patent infringement claims by PAEs. Privateering is the practice where an operating company sells or licenses a patent to a PAE to attack other operating companies.⁵¹ The LOT Network does not, however, protect against direct suits brought by another member or suits regarding patents acquired outside of the LOT Network. Since the licenses only become effective upon a transfer to a PAE, LOT members can still assert their patents directly against other members.⁵²

By participating in the LOT Network, companies are able to obtain direct protection against PAE litigation in regards to patents owned by other LOT members. Overall, the LOT Network intends to disrupt the current PAE cycle by reducing the amount of potential targets available to them. However, the LOT Network needs more operating companies to join in to further increase the long-term risk reduction.

III. Crossroads of Antitrust and Patent Law

Today, the relationship between antitrust laws and patent law is generally viewed as complimentary. However, this was not always the case — the former prevailing view was that the relationship between antitrust and patent law were at odds with one another.⁵³ Specifically, antitrust laws promote innovation by prohibiting specific actions that can harm competition — mainly monopolizing in a way that hurts consumers (generally raising prices or reducing output).⁵⁴ Contrast this with patent law in the United States that confers the rights to exclude others from making,

49. See LOT Agreement FAQs, *supra* note 21.

50. *Id.*

51. See Thomas L. Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors: IP Privateering & Modern Letters of Marque & Reprisal*, 4 HASTINGS SCI. & TECH. L.J. (2011).

52. See LOT Agreement FAQs, *supra* note 21.

53. *Xerox*, 645 F.2d at 1203 (“[T]he primary purpose of the antitrust laws to preserve competition can be frustrated, albeit temporarily, by a holder’s exercise of the patent’s inherent exclusionary power during its term.”).

54. See 15 U.S.C. §2; see also Ewing & Feldman, *supra* note 4, at 35.

using, or selling the invention claimed by the patent for a limited period of time.⁵⁵ As time went on, the legal perspective evolved and federal agencies have come to see patents as essentially comparable to any other form of property.⁵⁶ In the words of the Federal Circuit, the “aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition.”⁵⁷

The Sherman Antitrust Act has been used to prohibit unreasonable restraint on trade. Section One governs coordinated conduct that can be deemed to be anticompetitive — “every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States . . . is declared to be illegal.”⁵⁸ Section Two reaches unilateral conduct that can lead to monopoly power and takes predatory steps to exclude rivals. Specifically, “[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce . . . shall be deemed guilty of a felony . . .”⁵⁹ Although most enforcement actions are civil, the Sherman Act also empowers the DOJ to bring criminal suits.⁶⁰ Additionally, the Federal Trade Commission Act bans “unfair methods of competition” and “unfair or deceptive acts or practices.”⁶¹ The FTC usually enforces this act because it prohibits the same types of activities as the Sherman Act.⁶² This note will focus on Section One of the Sherman Act, namely potential coordinated conduct among the LOT Network member companies.

The U.S. patent system exists to promote the progress of science, to promote the betterment of society. This is accomplished by giving an inventor a monopolistic opportunity to exploit his invention. However, a patent alone does not grant market power in the antitrust sense of the word.⁶³ For example, holding a patent on Linux does not create market power since

55. 35 U.S.C. §154 (1988).

56. See IP Licensing Guidelines, *supra* note 24, at 2.

57. *Atari Games Corp. v. Nintendo of Am., Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990).

58. 15 U.S.C §1 (2004).

59. 15 U.S.C §2 (2004).

60. *The Antitrust Laws*, FED. TRADE COMM’N, <https://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws/antitrust-laws> (last visited Mar. 9, 2016).

61. See 15 U.S.C. §§41-58.

62. See *The Antitrust Laws*, *supra* note 60 (“Criminal prosecution are typically limited to intentional and clear violations such as when competitors fix prices or rig bids.”).

63. Robin Feldman, *Patent and Antitrust: Differing Shades of Meaning*, 13 VA. J. OF LAW & TECH. 5 (2008).

substitutes are readily available in, for example, Microsoft's Windows and Apple's OS.

With this backdrop, the DOJ and FTC have recognized the difficulty posed by different patent licensing agreements. This problem may be compounded by the fact that the LOT Network does not fit neatly into traditional categories. In 1995, the Agencies published their IP Guidelines to assist "those who need to predict whether the Agencies will challenge a practice as anticompetitive."⁶⁴ The Guideline was published with the intention of balancing monopolistic behavior with continued innovation.⁶⁵ Specifically, the Guidelines sets forth three general principles: (1) intellectual property is treated like any other form of property, (2) intellectual property are presumed to not create market power in the antitrust context, and (3) combining complementary factors of production is generally seen as pro-competitive.⁶⁶ The third principal seems to be an exception to the antitrust laws by permitting holders of blocking patents to pool their patents and jointly set a royalty rate.⁶⁷

It is also helpful to set forth a few definitions used in the Guidelines. First, there does not seem to be a difference between different cross-licensing arrangements. The guideline simply states the "cross-licensing and pooling arrangements are agreements of two or more owners of different items of intellectual property to license one another or third parties."⁶⁸ As the LOT Network functions like a blend of those arrangements, this simplifies the analysis. Second, the Guidelines differentiate between competing, complementary, and blocking patents. Competing patent are usually substitutes for each other, complementary patents cover technologies that complement each other without being substitutes, and a patent is blocking when it cannot be practiced without infringing a basic patent.⁶⁹ As it stands, the LOT Network's "conditional patent pool" contains a large number of different patents — many of which are likely to be competing, complimentary, or blocking. Third, the analysis is different depending on the horizontal or vertical relationship of the parties. A vertical relationship, like a typical licensing agreement, has activities that are in a complimentary

64. IP Licensing Guidelines, *supra* note 24, at 1.

65. *Id.* at 2.

66. *Id.*

67. *Id.*; see also Steven C. Carlson, *Patent Pools and the Antitrust Dilemma*, 16 YALE J. ON REG. 359 (1999).

68. *Id.* at 28.

69. See generally Roger Andewelt, *Analysis of Patent Pools Under the Antitrust Laws*, 53 ANTITRUST L.J. 611 (1984).

relationship.⁷⁰ The classic example being a component manufacturer licensed to combine with other components into the final product. By contrast, a relationship is horizontal when parties would be actual or likely potential competitors in the absence of a license.⁷¹ Parties can have substantial aspects of both horizontal and vertical components. The LOT Network has no barriers to entry for operating entities (besides a fee and meeting the definition of an operating company) and thus welcomes all parties (including direct competitors like Ford, Mazda, Subaru, Kia, and Hyundai).

Antitrust concerns are most common when the licensor and licensee are in a horizontal relationship. However, the existence of a horizontal relationship alone does not necessarily mean that an arrangement is anticompetitive.⁷² On the other hand, the Guidelines do recognize that by foreclosing access to or significantly raising the prices of an important input, may be an anticompetitive licensing restriction.⁷³

In the vast majority of cases, the Agencies evaluate licensing agreements under “the rule of reason.”⁷⁴ In the other cases, where a restraint’s “nature and necessary effect are so plainly anticompetitive,” the Agencies will treat it as a per se violation without looking at the pro-competitive aspects.⁷⁵ The Guidelines list naked price fixing, output restraints, and market division among horizontal competitors, group boycotts, and resale price maintenance in license agreements as examples to per se unlawful restraints.⁷⁶ When evaluating a restraint under the rule of reason, the Agencies will “inquire whether the restraint is likely to have anticompetitive effects and, if so, whether the restraint is reasonably necessary to achieve pro-competitive benefits that outweigh those anticompetitive effects” or whether the parties could have achieved similar effects with less restrictive means.⁷⁷ The reasoning is that economic theory holds that bringing certain patents together into common ownership can produce certain efficiencies.⁷⁸

70. See IP Licensing Guidelines, *supra* note 24, at 13.

71. *Id.* at 14.

72. *Id.*

73. *Id.* at 16.

74. *Id.*

75. *National Society of Professional Engineers v. U.S.*, 435 U.S. 679, 692 (1978).

76. See IP Licensing Guidelines, *supra* note 24, at 16.

77. *Id.*

78. “The Cournot-complements effect arises when multiple input owners each charge more than marginal cost for their input, thereby raising the price of the downstream product and reducing sales of that product. Effectively, each input supplier imposes a negative externality on other

Unfortunately, if improperly managed, a patent pool can be used to stifle competition and raise prices for consumers. Historical examples include John D. Rockefeller's Standard Oil, which was able to inflate prices and hold off competitors by using patent pools.⁷⁹ Another example is when Summit and VISX pooled their patents on LASIK devices to extract \$250 per treatment for devices using their patents until the FTC intervened.⁸⁰

An often-discussed case study is the Moving Pictures Expert Group Licensing Administration ("MPEG LA") patent pool. MPEG LA is a limited liability company that administers the pooling of digital video patents deemed essential for the MPEG-2 video compression technology.⁸¹ After seeking *ex ante* approval from the DOJ, MPEG LA received three DOJ Business Review Letters from 1997 to 1999.⁸² These DOJ letters are credited as the bedrock of modern antitrust counseling.⁸³ In those letters, the DOJ approved the arrangement by finding that the pool would provide pro-competitive benefits and mitigate anticompetitive damages. The DOJ found that the structure of the pool was well suited because only essential patents were included, not substitutes.⁸⁴

The DOJ Letters also identified specific potential competitive concerns and provided a roadmap on how to minimize antitrust risk. The ways a pool might restrict competition includes: restrictions among the pool participants, restrictions of downstream products incorporating pool patents, and restrictions in innovation among the pool.⁸⁵ To prevent such concerns, the letters provides a guideline for when a patent pool may gain approval: (1)

suppliers when it raises its price, because this reduces the number of units in the downstream product that are sold." Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2013–14 (2007) (internal citations omitted).

79. See Alan Daley, *The Consumer Interest in Patent Pools*, THE HILL (Apr. 4, 2014), <http://thehill.com/blogs/congress-blog/judicial/202613-the-consumer-interest-in-patent-pools>.

80. *Id.*

81. See MPEG LA PATENT POOL, <http://www.mpegla.com>; see, e.g., Carlson, *supra* note 67.

82. See Letter from Joel I. Klein, Assistant Att'y Gen., Dep't of Just., to Gerrard R. Beeney, Att'y Sullivan & Cromwell (June 26, 1997) (on file with the U.S. Department of Justice) [hereinafter MPEG Letter]; Letter from Joel I. Klein, Assistant Att'y Gen., Dep't of Just., to Gerrard R. Beeney, Att'y Sullivan & Cromwell (Dec. 16, 1998) (on file with the U.S. Department of Justice) [hereinafter DVD 3C Business Review Letter]; Letter from Joel I. Klein, Assistant Att'y Gen., Dep't of Just., to Casey R. Ramos, Att'y Paul, Weiss, Rifkind, Wharton & Garrison (June 10, 1999) (on file with the U.S. Department of Justice) [hereinafter DVD 6C Business Review Letter]. (The letters refer to the individual members of the pool, but those pools are generally known by the number of companies in each pool); see also Howard Morse, *Cross-Licensing and Patent Pools: Legal Framework and Practical Issues*, ABA ANTITRUST AND INTELLECTUAL PROPERTY (2002).

83. See Morse, *supra* note 82.

84. See MPEG Letter, *supra* note 82; see also *Id.*

85. *Id.*

the patent must be valid and enforceable, (2) the pool must not aggregate competitive technologies and set a single price for them, and (3) an independent expert should determine if the patents are essential, and the pool must not disadvantage competitors or facilitate collusion.⁸⁶

The FTC's IP Guidelines provided much needed clarity regarding the interaction of antitrust and patent laws. In general, the formation of patent pools and other cross-licensing arrangements will be approved where the procompetitive benefits are compelling under the rule of reason. However, enforcement action may be warranted in certain situations to protect public interests in competition. Under this framework, the next section will analyze the LOT Network for potential antitrust liability.

IV. LOT Network Under Antitrust Scrutiny

In the DOJ's IP Licensing guidelines, the Agencies' main concerns are: (1) "horizontal coordination among the pool's licensors [which] could lead to a reduction in price competition downstream products," and (2) "combining patent rights in a pool [that] could discourage [research and development] ["R&D"], new product development, and cost-reducing process innovations."⁸⁷ Generally, the vast majority of these arrangements are evaluated under the rule of reason.⁸⁸

The rule of reason has been described as a "middle ground" between the traditional per se rules of illegality and the "quick-look approach" to evaluating antitrust litigation.⁸⁹ There, the Court explained that "trial courts can structure antitrust litigation so as to avoid, on one hand, the use of antitrust theories too abbreviated to permit proper analysis, and, on the other hand, consideration of every possible fact or theory irrespective of the minimal light it may shed . . ."⁹⁰ Nonetheless, the Court added that instead of a full rule of reason inquiry, lower courts should use a "sliding scale in appraising reasonableness, and as such the quality of proof required should vary with the circumstances."⁹¹

86. *Id.*

87. See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 1, 67 (2007), <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/222655.pdf> [hereinafter Antitrust Enforcement & IP Rights].

88. See IP Licensing Guidelines, *supra* note 24.

89. See *FTC v. Actavis, Inc.*, 133 S. Ct. 2223 (2013).

90. *Id.* at 2238.

91. *Id.* at 2237–2238 (internal quotation marks omitted)(citing California Dental Ass'n v. F.T.C., 526 U.S. 756 (1999)).

That being said, the rule of reason is applied in a series of steps in a traditional antitrust analysis.⁹² The first step is that the plaintiff must show that certain behavior restrains competition in a market.⁹³ Second, if the plaintiff can meet this threshold, then the burden shifts to the defendant to show that the behavior serves a legitimate purpose.⁹⁴ Then, the plaintiff has to rebut this by showing that the defendant can achieve the same objective with less restrictive alternatives.⁹⁵ Finally, the court balances the harms and benefits of the restraint to determine if the restraint is anticompetitive.⁹⁶

A. Horizontal Coordination Leading to a Reduction in Price Competition

Traditionally, the main threat of horizontal coordination is that competitors in the same market collude together to set prices. The Agencies are specifically concerned that “horizontal coordination among the pool’s licensors could lead to a reduction in price competition among downstream products.”⁹⁷ In other words, the core concern of antitrust law is to prevent horizontal competitors from harming downstream consumers by colluding to set prices.⁹⁸ Even though a patent licensing arrangement might have strong pro-competitive benefits, the Agencies will look closely to see if a particular pooling arrangement can be anticompetitive. For example, the Guidelines state that a pool can be anticompetitive if (1) it excludes firms such that those excluded cannot compete in the relevant market and (2) the pool participants collectively possess market power in a relevant market.⁹⁹

The LOT Network is an open conditional licensing pool that can attract (and actually has) competitors or potential competitors.¹⁰⁰ The LOT Network describes itself as a “non-profit community of companies . . . who believe that good corporate citizens don’t monetize patents through patent trolls.”¹⁰¹ However, besides being members of the same network or community, there are no mechanisms for sharing information or coordinating actions among participants. In fact, the LOT Agreement “does

92. See Feldman, *supra* note 25, at 138.

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.* at 139.

97. See Antitrust Enforcement & IP Rights, *supra* note 87, at 8.

98. See *Texaco Inc. v. Dagher et al.*, 547 U.S. 1, 5 (2005).

99. See Ewing & Feldman, *supra* note 4, at 36.

100. See *LOT Website Members List*, LOT NETWORK, <http://lotnet.com/lot-network-member-list/> (For example, the LOT Network currently includes automakers Ford, Subaru, Mazda, Hyundai, and Kia).

101. See LOT Website, *supra* note 1.

not create any relationship of agency, partnership or joint venture among the LOT Users or its Affiliates.”¹⁰² Other than through joining the LOT Network via the LOT Agreement, members companies do not have any formal mechanisms for communications. Further, the LOT Agreement is written in a way that “obviate[s] the need of members to give notice, prepare covenants, or track patents that are transferred.”¹⁰³ There is no requirement nor need for members to communicate with each other. Also, the LOT Administration is not a centralized entity that can coordinate the actions of the participants or collectively price the pooled patents — it merely administers the LOT Agreement and maintains the network.

It might prove difficult to name the LOT Network and its constituent members as an antitrust defendant. Unlike organizations like RPX, LOT Network does not have a centralized structure where an entity can coordinate the activity of its members.¹⁰⁴ Of course, a party could assert that the existence of the LOT Network is a conspiracy in itself to prevent certain companies from becoming LOT members. Specifically, a member company must not derive 50% of revenue from patent assertion activity.¹⁰⁵ However, proving antitrust liability would be difficult since the excluded companies are not actually competitors since PAEs, by definition, do not actually produce their own products. If they did, they lose their most valuable defense against operating companies — they can now be countersued for infringing on one of their opponents’ patents. Thus, it is very unlikely that an agency or court would find this type of exclusion to be anticompetitive.

Operating companies can still use their patents however they wish and licenses will never vest so long as the patent holder is not a PAE. The LOT Agreement does not place any restraints on trade and does not restrict the sale of any patents, even sales to PAEs. There is the possibility that the patent itself might be devalued since it is not as valuable to certain buyers,

102. *LOT Agreement Version 2.0*, *supra* note 32, at ¶ 5.1.

103. *LOT Agreement FAQs*, *supra* note 21.

104. See *Cascades Computer Innovation LLC v. RPX Corp.*, No 12-CV-1143 YGR, 2013 WL 6247594, at *1 (N.D. Cal. Dec. 3, 2013) (RPX was accused of a hub-and-spoke conspiracy to monopolize a market by having members agree to not sell above a certain price for patents owned by Cascades).

105. *LOT Agreement Version 2.0*, *supra* note 32, at ¶ 6.15 (“Patent Assertion” means either of the following assertions of rights under a Patent against another Entity: (i) asserting (including but not limited to via a written or oral demand) a claim of Infringement of such Patent for the primary purpose of deriving royalties or other monetary compensation under such Patent, or (ii) the commencement or subsequent pursuit of a claim, action or proceeding in a judicial, administrative or other governmental body, including but not limited to a court (in any country) or the U.S. International Trade Commission, based in whole or in part on a claim of Infringement of such Patent.).

but that is unlikely to deter innovation, as discussed below. In fact, the pro-competitive benefits of discouraging PAE acquisition of LOT-pledged patents might outweigh having a patent with decreased value. Thus, it is doubtful that the LOT Network would be seen as impermissible horizontal coordination.

B. Predatory Pricing

The regulatory Agencies' ultimate concern is that horizontal coordination will eventually lead to predatory pricing. If the LOT Network is seen as impermissible horizontal coordination between competitors, the next step would be to see if this behavior leads to predatory pricing. As the LOT Network does not set prices to patents and patent sales directly, it is unlikely that there would be any anticompetitive concerns.

Although the LOT Network is unlikely to be found liable based on horizontal coordination, it would be helpful to discuss when an entity might be found liable of predatory pricing. First, an entity needs to offer a product at artificially low prices; second, the low pricing results in driving out competitors; and finally, the entity raises prices above what is nominal in a competitive market.¹⁰⁶

Unlike other entities, like Intellectual Venture, that aggregate patents in order to make a return on investment; the LOT Network does not directly set prices for or controls patents.¹⁰⁷ An argument can be made that the LOT Network offers its patents at lower costs to those inside the network — that the cross licensing is a cover for establishing market dominance. Or that the prices of the patents are depressed and therefore will lead to a subsequent rise in prices of the good produced. Perhaps a downstream manufacturer bought a LOT-pledged patent from a PAE and now must negotiate with competitor inside the LOT Network who holds a license.

However, competition is a good thing; after all, antitrust law protects competition, not competitors.¹⁰⁸ Patents inside the LOT Network remain with their respective owners, and only a nonexclusive license is granted upon a triggering event. That alone would not establish market dominance for LOT participants — it simply grants a defensive shield against PAE litigation and potentially a license to practice the patent. And finally, as

106. See *Matsuhita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 584 (1986).

107. See Ewing & Feldman; *supra* note 4, at 10–12 (Intellectual Ventures licenses or sell patents “on demand” to third party companies, sometimes under the threat of litigation or filing lawsuits for infringement.).

108. See *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993).

others now hold a full license to practice a patent, that could mean more competitors and potentially lower prices.

Competitor and downstream costs are unaffected by participating in the LOT Network. For example, imagine a three-tiered distributions chain. Company A (LOT) is the first component maker, Company B (LOT) incorporates Company A's inputs, and Company C (non-LOT) finishes the consumer widget with Company B's components. Now imagine that Company A goes bankrupt and sells its entire portfolio to a PAE. This triggers Company B (and all other LOT participants) to receive a fully vested license to Company A's patents, including the ones used for Company B's inputs. Since Company B is immune to suits for any components derived from Company A's patents, so long as B can continue to source those parts (or make it themselves) prices will generally be unaffected (at least directly related to being a LOT member) since they do not have to worry about a potential lawsuit. Company C, on the other hand, might be liable since they use the component that includes a part from Company A. However, by the first sale doctrine, buying the part from Company B actually frees it from the patent monopoly.¹⁰⁹ Thus, the consumers do not experience a price increase. In fact, the consumer benefits and it is likely that the LOT Network will not be liable for predatory pricing.

C. Discouraging Innovation

Another concern of the regulatory Agencies is that a patent pooling arrangements "could discourage R&D, new product development, and cost-reducing process innovations."¹¹⁰ In an arrangement involving horizontal competitors, the Agencies look at whether the effects are pro-competitive (efficiency-enhancing) or do not diminish competition among competitors or potential competitors.¹¹¹

The LOT Network is unlikely to be seen as an impediment to innovation despite a possible drop in the market value of the LOT patents. In certain circumstances, the value of the patents transferred may be reduced because some buyers would not value the patent as much as a non-burdened patent.¹¹² However, "[i]t is the overall benefit of society, rather than the benefits to an

109. See Feldman, *supra* note 25, at 147.

110. See *Wallace v. IBM*, 467 F.3d 1104, 1006 (7th Cir. 2006).

111. See IP Licensing Guidelines, *supra* note 24, at 24.

112. David L. Hayes & Eric C. Schulman, *A Proposal for a License on Transfer (LOT) Agreement*, (July 27, 2013) (unpublished paper), <http://ssrn.com/abstract=2224355>. (Working Draft – For Discussion Purposes Only Updated July 27, 2013).

individual inventor, that is paramount to the patent system.”¹¹³ As the LOT Agreement continues to apply to patents after a sale, certain buyers may be hesitant to purchase a LOT-pledged patent. These buyers do not have much to worry about: so long as the buyer is not or does not become a PAE, the LOT licenses will not trigger.

Buyers, including PAEs are not actually precluded from purchasing any patents. Instead, PAEs who acquire one of these patents can still use them for whatever nefarious reasons they desire, just not against LOT members. Also, LOT Network does not compete with other patent pools or aggregators in the purchasing and licensing of patents. In fact, other defensive patent aggregators can acquire a LOT-pledged patent to cross license to their own subscribers. Thus, the market price for patents should be largely unaffected by who is within or outside the LOT Network. Since the market rate for patents should not be affected, innovation should not be negatively impacted just because a patent is part of the LOT Network.

Similarly, the LOT Network could be seen as a field of use restriction — a limit on what a licensee is able to do with a patented product. Usually a limit would be placed on what the licensee is able to make with a patented invention.¹¹⁴ Courts have been inconsistent in their results and analysis regarding the validity of a field of use restriction.¹¹⁵ As a general matter, however, courts usually allow any restrictions on downstream products that contain a patented product as a component.¹¹⁶

Under a similar analysis, the LOT Network can be seen as a limit on what a PAE can do with a LOT-pledged patent. The PAE who acquires or is licensed a LOT-pledged patent is limited on the amount of companies that they will be able to assert the patent against. However, since a PAE does not actually product anything, this is not the type of behavior that antitrust agencies would traditionally be concerned with.

D. Pro-competitive Benefits

Restraints in a licensing agreement that do not have anticompetitive effects are usually unchallenged by the Agencies. If, however, the Agencies

113. Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399, 400 (2003).

114. See Feldman, *supra* note 25, at 145; see, e.g., *Barr Rubber Prod. Co. v. Sun Rubber Co.*, 277 F. Supp. 484, 506 (S.D.N.Y. 1967) *aff’d* 425 F.2d 1114 (2d Cir. 1970) (finding that a patent holder can license one firm their process while denying the same process to other licensees).

115. See Feldman, *supra* note 25, at 146.

116. *Id.* at 150–151; see also *Monsanto v. McFarling*, 363 F.3d 1336 (Fed. Cir. 2004) (finding that Monsanto held rights to second-generation soybean seeds because the seeds contained Monsanto’s patented genetic sequence).

find that a restraint is likely to have an anticompetitive effect, the Agencies will first determine if the restraint is reasonably necessary and then weigh the restraint against the pro-competitive benefits.¹¹⁷

As mentioned above, there is little risk that the LOT Network will be seen to be anticompetitive. But, in the event that a restraint is seen as such, the anticompetitive risks “may be insignificant compared to the expected efficiencies . . .”¹¹⁸

The main benefit of the LOT Network is the reduction in viable patents available to PAEs, hopefully leading to a reduction in patent litigation by disarmament. The LOT Network benefits LOT users in two ways: direct protection and long-term risk reduction.¹¹⁹ First, LOT members are protected from litigation involving specific patents transferred by another member to a PAE. Second, with a lessened threat of possible litigation, companies could divert money that would otherwise be earmarked for litigation into R&D. The risk reduction increases, as more operating companies become a part of the LOT Network.

Although there is little risk that the LOT Network will raise any alarms about impermissible horizontal coordination, competitors can benefit from the LOT model. By obtaining full licenses to specific patents, a competitor in the LOT Network can possibly make that specific invention after a transfer to a PAE. This is good for downstream buyers because there is potentially a new supplier that can provide the invention without the risk of being sued by the new patent owner. Also, the LOT Network “provides like-minded companies with a self-help approach to the dramatic increase in patent litigation.”¹²⁰

In addition, “[r]estraints that encourage licensees to develop and market the licensed technology or that reduce the transaction costs of licensing the technology are more likely to be found reasonable.”¹²¹ The restraints placed on the LOT-pledged patents would help develop and market technologies by reducing the chances of a PAE suit and subsequently reallocating resources away from a litigation fund. It also alleviates some uncertainty in supply chains. Buying from suppliers that are at risk for patent infringement (even if unmerited) increases the risk to the entire supply chain — upstream sellers risk losing sales and downstream buyers risk losing a supplier. By

117. See IP Licensing Guidelines, *supra* note 24, at 21.

118. *Id.*

119. LOT Agreement FAQs, *supra* note 21.

120. Hayes & Schulman, *supra* note 112, at 3.

121. See Antitrust Enforcement & IP Rights, *supra* note 87, at 10.

inoculating portions of the supply chain, in certain settings, may lead to lower costs, lower indemnification obligations, and higher outputs.

Further, these restraints protect members from privateering — “a practice where an operating company sells patents to a troll hoping the troll will then attack its competitors.”¹²² Privateering can raise rivals’ costs “by increasing the ability or incentives to enforce the transferred patents.”¹²³ Although the LOT Network protects participants from the threat of privateering, members are still free to sue one another. However, the threat of litigation from another LOT member would probably be for a merited claim and unlikely to raise costs like a PAE litigation. Presumably a settlement obtained by a privateering PAE would cause an operating company “higher costs, lower sales, and impaired scale” and consumers “higher prices in both the short term (because the PAE is induced to seek a running royalty when it otherwise might prefer an immediate lump sum payment) and the long term (from impairment of rivals).”¹²⁴ Thus, the conditional licenses granted by the LOT Agreement may lower transactional costs for LOT participants.

Given the range of pro-competitive benefits to LOT members and perhaps others in the supply chain, it would be difficult for a regulatory Agency to find that the LOT Network runs afoul of antitrust laws.

V. Conclusion

The current state of the patent system begs for innovative measures to curb abuse by PAEs. The LOT Network is merely one method by private entities attempting to curb PAE initiated lawsuits. The LOT Agreement is a carefully crafted patent licensing agreement that should be able to withstand an antitrust scrutiny by PAEs and reduce the amount of PAE suits based on patents obtained from operating companies. It neither provides a vehicle for horizontal coordination nor discourages innovation. The LOT Agreement provides many pro-competitive benefits in increasing the freedom to operate for operating companies. When smaller companies fail and sell patents to PAEs, the LOT Agreement protects the remaining members of the pool against the threat of litigation.

122. Belcher & Casey, *supra* note 15, at 14.

123. Mark S. Popofsky & Michael D. Laufert, *Antitrust Attacks on Patent Assertion Entities*, 79 ANTITRUST L.J. 445, 456 (2014).

124. *Id.* at 460 (explaining the possible effects of an operating company paying a PAE to raise rivals’ costs; incentivizing the PAE to accept a running royalty by compensating them for the difference between a lump sum settlement versus a running royalty).

Although antitrust agencies and laws continue to evolve, the pro-competitive aspects of the LOT Agreement will mean that it will continue to be an attractive option for operating companies that wish to reduce the risk of PAE litigation.