

**Patent Assertion Entity Activities Workshop
Transcript, Part 2 of 4**

**December 10, 2012
10:30 AM (Morning Break) to 12:00 PM (Lunch)**

NOTE: This transcript has not been completely proofed and is intended to be temporary. A final version will be posted soon.

SPEAKER 1: OK. Welcome back. And we're going to start with our first panel discussion. This is our Realities of Licensing and Litigation Practices. This panel will be moderated by Suzanne Drennon Munck from the FTC and Erica Mintzer from DOJ. Take it away, ladies.

ERICA MINTZER: Thanks, Francis. And thanks to all of our panelists for coming and for Professors Shapiro and Chen for that great morning. That's hardly anything for us to absorb right now.

I also do want to thank Suzanne. And it's just been great working with her. And I do want to point out some important facts about Suzanne. You may not know, she's a Costco member, and responsible for the coffee out there. And as our acting Assistant Attorney General, Haas once said is, a conference without coffee is a sad, sad thing. So I think everyone has Suzanne to thank for that.

And we are short one panelist today, I want to point out. Just because of the fog, John Desmarais was unable to come. There was some debate over how to divvy up his time. We thought that would be a fun little thing that we could have everybody fighting over. But instead, given the time that we're at, we're hopefully going to be able to compress our panel by about the 10 minutes that he was going to speak.

SUZANNE DRENNON MUNCK: Thank you, Erica. And it's just been wonderful working with Erica and Francis and everyone at the Justice Department. I think it's wonderful when we're looking at antitrust IP issues that we can bring the agencies together.

So with this panel, what we want to do is start out by looking at the realities of what's happening for some of the participants in this space. And the idea is right now we'll be asking questions really about these company-specific experiences. Later in the afternoon, when we're doing the efficiencies and harms panels, they'll sort of relate back up to these panels, and then also when we're looking at the antitrust issues on the last panel.

So really, we're very, very grateful for all of our panelists today. They've worked quite hard to prepare for this morning. And I'd like each of them to just give sort of a quick, two-minute introduction of their companies. And then Erica and I will each be asking them questions about their experiences in this space.

So we hope this will be quite informative, and I've been looking forward to this for quite a while. So I'm ready to get started. Thank you. Maybe we could just start on the end and sort of work our way down.

CYNTHIA BRIGHT: Hi. I'm Cynthia Bright. I'm leading the team that handles IP litigation for Hewlett-Packard. We have 325,000 employees worldwide, one of the largest portfolio of patents in the company, 85,000 employees in United States.

We make desktop computers, assembled in Indianapolis. We make servers in Houston. We have a wide variety of products, PCs, printers, also for enterprise space, help build all the products that go into data centers, things that run stock exchanges, health care systems. And I could go on, but I will stop there.

PETER DETKIN: And I'll take the rest of her time. My name is Peter Detkin. My background is I first started prosecuting patents in New York City a long time ago. I moved to Silicon Valley in the late '80s and was Wilson Sonsini's first patent lawyer, where I represented a lot of companies, both big and small.

I then move to Intel where I was first vice president in charge of licensing litigation, patents, and antitrust. I was there for the better part of a decade where I first met Carl Shapiro and launched him on his now brilliant career, analyzing this space. I had nothing to do with the natural gas stuff he also does.

And about 10 years ago, I joined with three others to found a company called Intellectual Ventures. Intellectual Ventures is a company that invests in invention. That's our basic motto. We've raise over \$5 billion in a few separate funds.

And we invest in invention three ways. We buy, build, and partner. We buy inventions. We build our own inventions. We have a lab up in Seattle with over 100 employees. And we partner with research institutions worldwide.

But no matter what I do in my life, past or future, I'm confident that my epitaph is going to have one thing on it, that I coined the phrase patent troll. That, and I launched Carl Shapiro. Let's not lose sight of that. But that was a rhetorical device that I was using to describe what I was seeing and what Carl was seeing-- I'm invoking him a lot here, Carl-- what I was seeing as problems in the market at the time, most of which he identified. Some flaws in the patent system, with respect to both remedies and quality.

Now, the market's changed a lot since then. We've had a lot of business models come up, including our own, including some that we see here on the panel, that I never envisioned back in the day. But the flaws remain the same. And those are the issues, I think, that we should be really focusing on.

We're going to hear about academic studies today that go both ways. Carl mentioned some. We have a one-pager out there that lists some other academic studies that we think counter some of the ones that Commissioner Leibowitz was mentioning-- Chairman Leibowitz.

There are anecdotes that go both ways. We'll hear about small companies that have gone under because of assertions by patent assertion entities. And I could tell you stories about inventors that never would have gotten paid but for the existence of patent assertion entities.

Both are right. There are bad actors in this market. There are bad actors in every market. There are bad actors. There are ambulance chasers. There are people who commit securities fraud. Doesn't mean we should do away with the securities market.

What we need to do is focus on the flaws in the system that allow these bad actors to exist. Let's focus on the patents, not on the owners of the patents. And again, to echo what Carl said, we really need to focus on quality, which is something Dave Capos has been focusing laser-like the last few years. And let's hope it continues after he leaves.

We need to focus on remedies, and that's an area where, I think, discussions like this, and agencies such as the DOJ and FTC, have a role to play, as well as the courts. This is something that Judge Rader, of course, is focusing on significantly, and others.

There's a lot of swirl around here. There's a lot of red herrings though in this industry. We're going to talk a little bit about those as well. Let's not follow the trails of the red herrings. Let's focus on what really needs to be fixed, namely patent quality and remedies.

SARAH GUICARD: I'm Sarah Guichard. I work for Research In Motion, maker of the BlackBerry. And the reason I came to work for RIM was because of NTP. Probably every time we talk about PAEs, RIM and NTP always come up. And it was after NTP or during NTP where RIM decided they really had to beef up their in house patent counsel staffing, because of the challenge and the continued challenge that we've seen to our business as a result.

PAUL MELIN: OK. Paul Melin from Nokia. Nokia was leading mobile phone company. And we're working on our comeback on smartphones. We also have joint venture, Nokia Siemens Networks, which is a very substantial vendor of infrastructure and equipment.

And Nokia is in a very uniquely balanced position in this debate, as we are both a frequent target of assertions. Nokia has been sued nearly 100 times since 2007. And most of those lawsuits have settled. We have only a handful of longstanding disputes.

And that's OK, because we take the view that this is just a sign of the patent system working as it was intended to. We respect third party IP. When we need to pay for licenses that we require when we integrate complex technologies, we do that.

And can something be done to improve the efficiency of the system? Absolutely. Of course.

In too many cases, we get the lawsuit, out of the blue, being the first contact. We would very much like to negotiate with these companies ahead of the time, before the lawsuits are filed. So if incentives can be changed to reduce that kind of behavior, that would be great.

But is there any fundamental reform needed in our view? Absolutely not. The costs cited earlier today are just totally not matching up to our experience in the in house world at all.

On the other side of the coin, Nokia also has a very large patent portfolio of approximately 10,000. But in patent families, more than 30,000 individual patents and applications worldwide. And we need to monetize this very valuable asset that we have built over the years with research and development investments of nearly \$50 billion US dollars.

And often, we do not have the resources or otherwise are not best positioned ourselves to exploit those inventions, either through our own products or through our own licensing activities. And as a result, the divestments of patents have become a very important channel for us to monetize and realize the value of our research and development.

Over the past five years, we have completed more than 20 patent divestments, many of them to patent assertion entities, not all of them. And we see these as a very important channel and source of liquidity.

And it's not the leaky bucket. Based on our experience when we're talking about high quality assets, we expect to get there 65% to 80% of the gross revenue eventually collected on those assets. And that all goes back into research and development. So it's, from our point of view, a very important channel.

And I would just like to point out that there is, in this type of debate in many conferences, often a sense of entitlement. And people tend to forget that you are not supposed to infringe patents. In many countries, patent infringement is a crime.

And it's, of course, possible in complex technology areas to inadvertently infringe. But in those cases when that happens, we tried to settle those things and pay all dues.

The reality of patent licensing is that there is an incredible amount of cynicism on the market and sense of entitlement. In numerical terms, the vast majority of companies we tried to negotiate licenses with totally refused to offer anything absent litigation, even when the value of the patents themselves is not put in question. Because the economics on the defendant's side also take into account the probability of you ever getting sued.

And if you face on the other hand a large patent holder with a lot of activities, especially the small companies. And many of those small companies reside on very large markets in the Far East rather take their chances and refuse to even engage in negotiations.

So in these circumstances, having the ability to divest patents and realize the value through investors who are willing to take the risk upfront on our behalf, or basically share the risk with us going forward, is absolutely critical for us to realize the value.

SUZANNE DRENNON MUNCK: Thank you very much. I'm looking forward to asking you about that later. Thank you.

NEAL RUBIN: Good morning. My name is Neal Rubin. I'm the vice president of Litigation at Cisco Systems in California, one of the world's largest manufacturers of telecom equipment.

Cisco has approximately 70,000 employees and about \$50 billion in revenue. And that's relevant to give some context to the fact that the company spends approximately \$6 billion a year in research and development, designed to make the future of the internet and communications faster, more secure, and more reliable. We have more than 9,500 issued patents, 3,700 pending applications. And we file approximately 1,000 patents a year globally.

Effectively all of Cisco's litigation, patent litigation, is brought by PAEs. And we are now spending twice as much money defending those cases as we are prosecuting and filing the 1,000 plus patents we have all over the globe. Indeed, we've had to reduce our patent filings to in some sense compensate and pay for the defense costs of PAE litigation.

So needless to say, I think we're grateful that the FTC and the Justice Department and all these various different views are coming here today to discuss how we can improve the system.

MARY STICH: Hello. I'm Mary Stich. I'm an associate general counsel in charge of litigation at Rackspace hosting in San Antonio, Texas. We appreciate being included today to talk about what is for us our most pressing legal issue. Rackspace is the open cloud company. And we're here today for two primary reasons.

First, we'd like to provide a perspective on how PAE activity is harming smaller, more organically growing businesses. Second, we want to discuss how PAE activity threatens open source development and innovation.

At Rackspace, we're at an interesting place in the market. We're only a fraction of the size of HP or Cisco. We have a shorter history. And really within the last three or four years, we've come into our own as a leading provider in cloud computing services. While our older products and services still provide the bulk of our revenue, our cloud computing business is growing year over year, and this is where we see our future.

Rackspace is growing in headcount, R&D spending, and the technology that we develop and provide. But PAE activity, we believe, is a direct obstacle to our growth. Our fastest growing expense category, faster than salaries, faster than R&D, is PAE litigation defense.

Like other smaller companies, we've seen an explosion in the number of PAE infringement suits. Smaller companies are being forced to divert an ever larger amount of time and resources to these cases. The number of PAE suits filed in 2011 almost doubled over the number filed in 2007.

And most of the companies being sued are smaller. Companies with under \$1 billion in revenue accounted for 63% of the unique defendants in PAE cases in 2011. On average, smaller companies are paying \$1.5 million per case to resolve them in fees or settlements, or they're making operational decisions that put them at a competitive disadvantage.

In our belief, these suits are poison to ordinary business. The root cause of the problem is flaws in the patent system, as we've been discussing. And we believe the flaws are being exploited by PAEs. The flaws in the system have a disproportionate impact on small business and open innovation.

We don't think this issue should wait. We think the AIA was a strong effort by Congress, but we think the patent system should be a level playing field.

SCOTT BURT: Good morning. My name is Scott Burt. I'm vice president and chief IP counsel at a company called Mosaid Technologies. I'd like to thank Suzanne and Erica for the invitation today.

I would also like to thank Chairman Leibowitz for the kind of word in his remarks. Although, Mr. Leibowitz, it is "Moss-aid." Nobody can pronounce our name correctly. It is "Moss-aid."

Let me tell you briefly what we do and who we are at Mosaid. We're a 37-year-old technology company. We were founded in 1975 as a designer of semiconductor DRAM memory chips. By the late 1990s or by the '90s, we found that our innovative patented technology was being used throughout the DRAM industry. The problem was primarily without our permission.

We responded by actively and successfully licensing our DRAM patent portfolio. Over time, Mosaid focused increasingly on IP management as a way to capitalize on our patenting and our licensing expertise.

Mosaid continues to obtain patents from our own memory research and development. But lately, most of our portfolio of about 5,500 patents and applications has come from acquisitions. We acquire patents from a wide spectrum of IP owners, but most of them come from established semiconductor and communication technology companies that for years invested in research and development and now seek to benefit from the value and the resulting patent portfolios.

While there's no typical transaction in most of our deals, Mosaid buys a patent portfolio or a company that holds the portfolio outright. We then license or sometimes sell our patent portfolios, primarily to leading, established companies in the relevant technology. In some cases, we share part of our later revenue stream with the original patent innovators.

As an example, and to follow up on Paul's introduction, I would like to outline a transaction that I expect will be a topic of this roundtable session. In September 2011, Mosaid purchased from Nokia a company known as Core Wireless and its approximately 2,000 wireless patents originally developed and held by Nokia.

Nokia spent many billions of dollars in research and development to build a substantial patent portfolio in wireless communications. Core Wireless is now using Mosaid's specialized IP management and our proven licensing model to obtain the value of the core wireless portfolio. Under the arrangement with Nokia, Core Wireless independently conducts all of the licensing and, if necessary, enforcement efforts and in turn shares part the revenue.

As you can see from the Core Wireless example, Mosaid is a licensing company. Our goal is to license our patents to companies who are not our competitors, and not to restrict access to those patents. We succeed and innovators succeed when the technology we license is valued and adopted by our licensees, and in turn, our licensees also succeed.

SUZANNE DRENNON MUNCK: Scott, I don't want to cut you off, but if you keep going I'm not going to have anything to ask you later on. Thank you.

MALLUN YEN: I'm Mallun Yen. And I'm with RPX. RPX was started about four years ago to help operating companies work together to more effectively reduce risk from NPEs or PAEs.

The core service we provide is called defensive patent aggregation. It's the combining of resources from a broad group of companies, in our case, more than 125, to buy patents before they fall into the hands of PAEs. So in short, it's proactively buying patents to head off the problem before it starts and before the high transaction costs of litigation kick in.

And since RPX can't buy all the risky patents out there in the open market, some patents do end up in the hands of PAEs and are then litigated. When that happens, we can often resolve the case collectively on behalf of our members far more efficiently than can be done on a defendant-by-defendant basis.

To date, we've spent over \$500 million on rights to about 3,000 patents with nearly 300 litigation dismissals for our clients. These clients range from the largest public companies to small, privately held startups. Our success is the direct results of companies realizing that with respect to patents, one company alone simply can't make enough of a difference. It takes an industry working together to shift the uneven playing field and drive change, whether it's through legislative reform, case law evolution, or market-based solutions like RPX.

One key to our business model is aligned interest. We proactively identify and buy patents that could be a problem. Every member gets a license to every patent that we buy. And we do not assert our patents.

We also continuously monitor all NPE litigation activity, open market transactions, and also track all patents that are being marketed, sold, or assigned. As a result, as you've seen as a sliver of it today, we've amassed an unprecedented amount of data, which we openly share with our clients.

Earlier this year, we also launched a small insurance business that insures companies against NPE risks defense costs. So we now have an even more vested interest in reducing patent risk and also reducing costs. So ultimately, our goal is to help make patents a predictable, manageable risk for operating companies by using typical market-based mechanisms, access to information, efficiency, low transaction cost, and efficiency.

SUZANNE DRENNON MUNCK: Thank you, Mallun. And Cynthia, I'd like to start with you. As I mentioned before, one of our goals with this panel is to understand the realities of PAE and

licensing and litigation for a broad range of market participants. And as a large operating company, I'd like to ask you broadly how PAE activity impacts HP.

CYNTHIA BRIGHT: Certainly. I'll go back and fill in some of our statistics. We currently have a docket of 50 patent cases here in the United States. Those are defensive cases. We have an additional three cases in which we are a plaintiff seeking to enforce our IP against folks that are cloning our products.

That has ranged since 2008 from anywhere from 50 up to 70 or even 72, something like that. It's been pretty steady. Cases come and go. They turn over. 25 or 30 per year get settled. Pretty average.

Cases last 12 months. They last 24 months. They may last longer. I went back and looked at what percentage would fall into this definition that has been used this morning of PAE. That would comprise 60% of our docket. We have one competitor case. We have one university case. The remainder in that other 30 something percent are either an operating company-- although we did not consider them a competitor-- a failed operating company. It may include some individuals.

A couple more things I will call out, most of the patents we're seeing right now are very old. They're from the 1990s. We saw this study that Professor Shapiro cited that, if I recall correctly, and it's the same study, the average age of patents being asserted is approximately eight years between that priority date and the time of the issuance of the patent. We did our own informal study internally on our docket, and the average age was 12 years between the priority date and the time that the patent issued.

In connection with that, we see a lot of what I would call continuation abuse, where patents are being intentionally written out onto products on the market, or they're being written onto standards.

SUZANNE DRENNON MUNCK: Thank you. And you mentioned that about 60% of your docket is PAE activity. Has that trend changed over time?

CYNTHIA BRIGHT: I think it depends on when you are looking back in time and when you started. I think the debate has become more sophisticated separating NPEs from PAEs. I think it's growing. And the real uptick for us is somewhere around 2008.

SUZANNE DRENNON MUNCK: And what has HP done in response to both PAE litigation and PAE licensing efforts?

CYNTHIA BRIGHT: We are looking at those cases on the merits. We've done a variety of things. We are managing them from in house. We are also talking about what we see as issues in this space, particularly around patent hold-up issues, PAEs becoming more sophisticated, going to International Trade Commission. As well as what the right price should be in these cases, so essentially issues around remedies and damages.

SUZANNE DRENNON MUNCK: And one of the things we're trying to figure out today is right role for the agencies to play in this area. I'm wondering if you have any thoughts on that.

CYNTHIA BRIGHT: I do. I think that there's been an incredible amount of thought leadership from the FTC, particularly in the 2011 report. I do appreciate also the PTO's focus on patent quality. And that's an issue where we see--

Let me circle back to one point. And I think one of the assumptions in the presentation this morning is that there is a very strong quality of patents, that you have a patent, if you read the specification, it's tightly linked to the claims, it's tightly linked to innovation or an invention that can be used in innovation. That's what we see a great deal of slippage.

So having the PTO focus on quality is particularly important. We see a lot of patents that get stretched from whatever their gee whiz idea that's now being asserted against something very different.

We also see a lot of patents where there are instances that the most valuable patents to an NPE is a broad, loosely-worded patent, where a patent assertion entity is arbitraging the cost of defense, the time that it takes to get to any type of judging, whether it's summary judgment or trial-- and I think there are different camps out there-- and setting the price accordingly.

Some patents assertion entities come in with very low settlement amounts to begin with. And then some are much more sophisticated and come with much larger demands, often still relying on, essentially, an entire market value rule, even if the patent that they're focusing on is just a feature.

SUZANNE DRENNON MUNCK: How often do you see PAEs coming in, as you mentioned, smaller demands as opposed to a larger PAE request based on the

CYNTHIA BRIGHT: I don't know if I have an exact number on that. I think there are a handful of very sophisticated patent assertion entities. I think there are a lot more that are smaller that come in with-- from the get go, they've got a demand that's \$500,000 or less.

And the message is, we don't want to litigate. We want you to settle. What the selling price is, you can negotiate from there. At most, they're staffed up to take the matter through claim construction, if they even try to get it that far. And then we've also seen a new phenomenon, which is going after end customers for even tinier amounts, \$50,000 or less.

SUZANNE DRENNON MUNCK: And I think that Cisco may be addressing that, too. So I don't want step on each other's toes. But is there any point you'd like to make with respect to that?

CYNTHIA BRIGHT: No. I think Neal has some comments there. So I'll not comment on that one.

SUZANNE DRENNON MUNCK: This actually may be a great time transition into Cisco, unless there's other points that you'd like to make.

CYNTHIA BRIGHT: I just wanted to focus on two other things, particularly the patent assertion entities going to the ITC and the issue of hold-up. If you do not make a product, and you go to the ITC-- which is the Trade Commission-- and ask them for an exclusion order, that makes no sense. You don't want an exclusion order. You only want a licensing deal.

So you're only looking for leverage and the threat that you'll exclude either 100% in the market if you're heavily focused on the United States, or 30% of the market, depending on what your worldwide reach is, from coming to the United States. It's an opportunity for someone to gain hold-up leverage, because whatever their patent focuses on, the entire product is excluded.

But that abuse is also not limited to patent assertion entities. It can be abused by operating companies as well. It's particularly dangerous in the standard setting and context with standard-essential patents.

So I appreciate the FTC's leadership in the public comments it has made to the ITC on this matter. Unfortunately, I don't see the ITC reforming itself, although it could, and it should. It's an area where HP has made a lot of comments and will continue to focus. So with that and a more rational damages system, where our courts focus on the court-led reforms that have come from the Federal Circuit through gatekeeper function, I think would help all of the abuses that we see in the patent system.

SUZANNE DRENNON MUNCK: Cynthia, thank you very much for your time.

CYNTHIA BRIGHT: Thank you.

ERICA MINTZER: Cynthia, thank you very much for your time, Neal. If we could maybe just start out with a discussion of some of the most significant issues and trends that you're seeing at Cisco and the impact on both Cisco and the marketplace that you believe is happening from this patent assertion activity.

NEAL RUBIN: Sure. Thanks, Erica. So I think that the FTC and the Justice Department should focus their attention on three emerging trends that we think can have and are having anti-competitive implications and that result in a significant overvaluation of patent rights. The first is actually one that Professor Chen commented on earlier this morning. And that is, PAEs whose business model is to focus on threatening or suing hundreds, if not in some cases, thousands of end users. In other words, companies that are using the accused product.

Now obviously, there's nothing unlawful about suing an end user. But we think it as anti-competitive implications in two ways. One is with the high transaction costs, unfortunately it's often in these smaller businesses' best economic interest, the wisest choice for them, given the high transaction costs, are often to settle the cases. And so you end up rewarding sometimes weaker patents or even invalid patents, because it's easier for these businesses to settle.

The second related problem, though, is that in these suits against an end user, the PAE is seeking a damage model related to a different level or a different business model and potentially a

different revenue stream than if they were to go after the manufacturer who has a competing product. So that's one area which is looking at large lawsuits against end users.

The second area is when a PAE model is to amass a significant patent portfolio and then seek to threaten or sue, and asking companies to take a portfolio-wide license under the theory that I have 1,000 patents, and I'm sure you're infringing a few of them, and we'll start here. These are the first three or five you should look at now.

It's not like you can invalidate all these 1,000 patents. You'd go broke trying. And so you're looking at the threat of seriatim lawsuits that even if you effectively defend against the first few, you're going to have more coming.

And I think this problem is particularly pernicious when they are both RAND-encumbered and non-RAND-encumbered patents within this larger portfolio, because then if you end up deciding that it's in your best interest to take a portfolio-wide license, you're not really sure what the effective rate is for the RAND patents or the non-RAND patents. And again, that's a way to sort of camouflage this issue and not allow them to be licensed.

Of course, these large portfolios sometimes have standard-essential patents involved in them too. And sometimes those are not even included in the possibility of the license. They're reserved to sue an end user later.

And the third problem we see is what we think is a deceptive practice of not disclosing exactly what patents it is that this PAE actually owns. And so you don't really know the true ownership there. There's a Byzantine sort of hidden structure of multiple affiliated organizations and multiple entities.

And that is a problem for the target of a threat or of a lawsuit, because you don't know if what you're getting in a license is actually what you need, or whether it's too broad. And are you really getting as much as you need? If you really want to take, in those instances where it's cost effective, to take a portfolio-wide license, you're not even sure if in doing that you're actually getting the patent piece that you want that would allow you to make products without the risk of patent infringement.

So Cisco has experienced all three of these different things. We see them as growing trends. They're more prevalent today than they were a few years ago. And we think that they're having a potentially anti-competitive impacts in the marketplace.

ERICA MINTZER: When you talk about the uncertainty with respect to patent piece, there's not a disclosure of everything that's owned necessarily by the entity that you're settling with at the time of settlement?

NEAL RUBIN: Well, you hope there is, and at least, to a very complicated negotiation is part of the license. But our view is that there should be enough transparency so that if you are going to take a license from this particular entity and you've decided to license what it is that it owns,

you're not going to find out later that, oh well, actually, we had this affiliate, and it doesn't meet the definition of affiliate. And their patents are different, and you're actually infringing those.

You want to have transparency, so you can make effective decisions in the marketplace. You can allocate capital properly. And I think the lack of transparency is an impediment to that.

ERICA MINTZER: So you've identified some concerns and some problems that you see with this system. And in your introductory remarks, you talked about using this as a forum for discussing possible solutions. What do you think could be done? And in particular, what recommendations do you have for the FTC and the DOJ?

NEAL RUBIN: Well, there are a lot of ways to attack the problem. And some of our speakers talked about it earlier today. I think that one potential solution here would be to have the FTC have a filing requirement when patent assertion entities make a material patent acquisition.

Now, we can debate about what's material and what's not material, and that would be healthy discussion. But allowing the FTC to inquire as to why is this entity selling this patent or this group of patents, and what is the PAE acquiring it for-- And let's assess what impact that's likely to have on the market on the front end.

It goes a little bit to the point the Professor Shapiro made about, well, let's follow the money. My point is not to say that this filing requirement is going to prohibit these transactions. It's just to say that more information is better than less. We've talked about some of the problems of not having very good information in this. And our sense is that if regulatory agencies can understand on the front end impact to competition of these kinds of larger patent transactions, it'd probably be in everyone's best interest.

ERICA MINTZER: And then to the system more generally, are there specific areas that you think are particularly open for exploitation that-- Are the courts addressing adequately some of these issues?

NEAL RUBIN: Well, I think the Federal Circuit and the courts are doing a great job at looking at the damages issue. Again, it was another one of the issues that was brought up this morning. Is a patent owner-- Again, when he or she is litigating, are they getting a value and are they getting damages that's really commensurate with the contribution that that patent makes in the marketplace above the next available alternative.

And if the answer to that question is yes, then I think you discourage this kind of over investment in patents, and you discourage operating companies, maybe even successful operating companies, from seeking to divest their patents. If an operating company thinks that it can make more money selling and licensing its patents than it can actually practicing the patented invention, then that suggests that damage awards are high enough-- That would not be true if damage awards really gave value that's commensurate with the patented technology.

ERICA MINTZER: I saw you testify on the Hill this summer. You made a distinction between revenue-driven licensing activities and production-driven licensing activities. And we also heard

Professor Shapiro talk a little bit about the effects of ex-post licensing. Just wondering if you could explain what you see as the relevance and significance of those distinctions.

NEAL RUBIN: Sure. Whatever the remedy here I think needs to take into account the difference between ex-ante and ex-post. If ex-ante is helping to contribute to new products and new industries for professors, inventors, others to come to operating companies and saying we have this great invention, you should license it-- Obviously, companies like ours spend an enormous amount of money on inbound licensing. And that helps drive and see new businesses, new industries. It's pro-competitive. It's wonderful.

The flipside though is to wait in the wings on ex-post, and to say, I'm going to wait until the company has its first billion dollars of revenue, and then I'm going to bring a lawsuit. And to our mind, that's a tax on an existing product. These are two different things. And when we're seeking to give a remedy here, I think we have to take that distinction into account.

ERICA MINTZER: And then I would just ask if there's anything that you haven't address that you'd like to address. As I'm watching the clock closely.

NEAL RUBIN: I think there are lots of people on the panel who have important things to say. I'll be happy to defer to them. Thank you though, Erica.

ERICA MINTZER: Thanks. Now if we could turn to Peter Detkin. I've read with interest your blog on Friday. I don't know how many people got a chance to see it, where Peter was addressing some of these issues of transparency and recordation of patent ownership. I thought maybe if you could just talk a little bit about that and give everyone the benefit of--

PETER DETKIN: Sure. Thank you. Thank you for the opportunity to address that, because that's obviously a question on a lot of people's minds this morning. This is an example of what I mean by it's a red herring of an issue. Well, it's come up in a couple different contexts, most recently from a blog post from a crowd-funded effort that claimed, and I'm quoting here, almost quoting, that we use thousands of shell entities to hide our assets from our licensees and to file a bunch of lawsuits in anonymous names.

Let me see right here, right now, in front of the assembled masses here, the overflow room and all the ships at sea, we have never filed a lawsuit in any name other than Intellectual Ventures. Got it? We filed about six lawsuits-- I'm sorry. That sounded very defensive. Let me step back.

We filed about six lawsuits in our ten-year history, never sued a startup. Only one of those could even kind of be called a software related. It wasn't e-commerce or a method of doing business. It's on a complicated security product. But the fact is, we've never sued in any name other than our own.

Are we using it to hide patents from our licensees? That's really kind of absurd. We've done over \$2 billion worth of licensing. And every single one of those deals has been with sophisticated companies who have asked us lots of questions, interminable questions, it seems, about what assets we have, lots of negotiation about affiliates to make sure that they captured everything.

A number of our licensees are here on the panel. A number of our investors are here on the panel. A lot of our licensees are here in the room.

Anybody have any doubt what they're getting when they're doing a license with us? OK, I see no hands. Let's move on.

Why do we do it? So let me answer the question. Why do we do it the way we do it? It's really actually not as interesting as you might think. The reason we have a lot of different acquisition entities is purely logistical. We have a number of different investors, both financial investors and strategic investors. Again, two are on the panel here. Nokia and Cisco are big investors with us.

But not all investors are investors in each IP group that we buy. And we have to carefully track who owns what. And we have to carefully track our revenue and expenses on an IP group by IP group basis.

The way to do that is to keep them each in a separate entity. So we have costs associated. We have accountants that keep track of it all. We have costs associated with it, and revenue associated with it, so we can track it on behalf of our investors.

Ah, you ask them. Why do you have all those names? Last I heard, I was asking deposition about our random name generator. Again, all ships at sea, there is no such thing. Please stop asking me about deposition. You can save your 15 minutes of deposition.

We keep it confidential for the same reason Warren Buffett keeps his information confidential. We spend a lot of money and a lot of effort figuring out where to invest. And we don't feel like tipping our hands on our investment policies and our investment intentions to our competitors.

Warren Buffett doesn't tell people where he's investing until he's forced to when he's practically ready to take over a company. Disney doesn't tell people when it's buying swamp land in Florida that, hey, we're planning to put a theme park over there. They keep it confidential.

In fact, I often hesitate to use the real estate analogy, because I know it breaks down in many levels. But here, it works. Real estate is often held in the name of a trust. It's often held in the name of a holding company. Nobody thinks twice about that. Why all the sudden are we making a big deal out of here? I would argue it's reasons having something to do other than with the actual patent system itself.

ERICA MINTZER: Could I jump in, just with a couple questions?

PETER DETKIN: I'm on a roll. You were actually going to hear me criticize Carl Shapiro about something, the only thing I disagree with him on. But go on.

ERICA MINTZER: There were two things. I know you indicated that IV has never filed a suit in anyone's name but itself. Has an Intellectual Ventures retained a stake in any litigation proceedings or royalty generations for sales of patents that it may have engaged in?

PETER DETKIN: Yes. We have sold some patents. We actually sold a lot of patents. And some of the patents we've sold have ended up in litigation. And for some of those, not for all but for some, we have what you might call a back end.

But we have no control over what happens in that litigation. We have no ability to indicate whether they should settle whether, with whom and on what terms. We simply, like Nokia does, as Paul was just describing with some of his deals, we have a back end share of the revenue.

ERICA MINTZER: I guess, how important is control if the incentives are aligned in a certain direction?

PETER DETKIN: I would argue it's extremely important. If you don't have any control, it doesn't matter what the incentives are. If I've sold to Paul and he's asserting that I can't control what Paul does then I may choose to start to sell to Paul, because I think he's good at monetize. I'm sorry Paul. I don't mean to pick on you. But I may choose to sell Paul because I think he's good at what he does. And if I'm going to benefit from it, so much better. But then it's completely hands-off.

ERICA MINTZER: And then if we can go to the real estate analogy. We heard some questioning this morning about how leaky is the bucket. So if you're talking about Disney and that situation, Disney doesn't want to let anyone know they're buying the swamp land because they know how much value can maybe come out of it. Are they being under compensated, that holder of that property? And do you see an issue here as to what value the inventor might be getting vis-a-vis Disney inventions.

PETER DETKIN: That question, I think, is a little above my pay grade. All I can tell you is we think we are fairly inventors. We are pumping billions of dollars into the invention economy. We're buying from inventors big and small. We haven't heard any complaints from the inventors that they feel like we have unfairly capitalized upon their inventions. But you're asking a question that's better answered by an economist, frankly. Can I do one more?

ERICA MINTZER: I was just going to turn back to you.

SUZANNE DRENNON MUNCK: Actually, quickly I want to jump in with a question on the fair compensation to investors.

PETER DETKIN: Investors or inventors?

SUZANNE DRENNON MUNCK: Inventors. Pardon me. Do you have any data that represent that, or how much money the inventors are receiving because they're working with you versus what they would be able to obtain on their own?

PETER DETKIN: Wow. That's a tough question. I can answer the first part, which is, as I've said, we have paid out-- I can't give exact numbers-- well over \$1 billion in terms of two invented entities when we purchase their rights. A good portion of that has gone to individual inventors.

We don't track this kind of data, which is why, I'm sorry, I don't have it for you. But a few years ago, we looked, and we determined that we paid well over \$400 million to individual inventors.

But that doesn't count, for example-- A small start up that had two people in it, that would fall into our small company bucket. And we don't track that. We do track in terms of deals. And my data sitting in my briefcase over there, I forgot to bring it up, but I did notice it pretty much tracked what Professor Chen showed in terms of where our deal flow is. But in terms of hard data, hard dollar figures, the best I can tell you is the money we pay all goes to inventive entities. And \$400 million plus now goes to individuals.

SUZANNE DRENNON MUNCK: I thank you. And I'll just turn this back really fast. One of the things that we're looking for in the public comment is more empirical evidence, if possible, of the efficiencies and harms of PAE behavior.

ERICA MINTZER: I just want to make sure you get to make the points you wanted to make.

PETER DETKIN: OK. I wanted to make one last point, since I was on a roll The last criticism I've heard of the lack of transparency is that people looking to take a license don't know who to contact. That is, with all due respect, something an academic could only think of.

Anybody in this room ever tried to take a license but didn't know who to contact? OK. For the ships at sea, not a single hand went up. I've never heard of that behavior in the real world. I actually don't think it would be really hard to find out who it is.

In fact, according to that entity that was trying to raise money, it would cost about \$80,000 to do a downtown analysis of our portfolio. Our portfolios is over 40,000 patents. So at an average cost of \$2 per patent, I think people could figure it out if they really wanted to. But again, this is solution in search of a problem. I'll stop.

ERICA MINTZER: Thank you very much.

SUZANNE DRENNON MUNCK: Thank you very much. OK. So now we're going to shift gears just slightly and talk to Mary Stich. Mary, you're with Rackspace. And as we talked about, Rackspace is a smaller company. For example, you don't have independent IP counsel. And I'd like to ask you what the realities of PAE activity are for smaller companies, in particular if you have any sort of examples-- One of the things we've talk about privately is nuisance suits. So if you could address that as well.

MARY STICH: Yes. Thank you. I mentioned earlier that our fastest growing expense is defending PAE patent cases. We've been sued eight times in the last three years. All the cases are PAE cases. And for us as a smaller company, that's a lot. The trial budgets for each case are in the millions, as most of you know.

90% of our legal spend on defense cost in 2012 was on PAE cases. 90% of our legal spend on defense costs in 2012 was on PAE cases. Since 2000, we've seen a 500% increase on our legal spend on defense cases because of PAE cases. A 500% increase.

We believe the cost to litigate is being used as a club to force settlements. Quite often, we and other small companies are presented with this scenario, a damage claim in the millions, budgets in the millions, and a very early opportunity to settle in the low six figures. Is a small business is going to go to trial at a cost of over \$2 million or settle for, say, \$100,000?

Many of you in the room are probably private practitioners. Do we have any private practice lawyers in the room? Raise your hands proudly. Have any of you heard or experienced clients say, I know the cost to defend is reasonably set forth by you and your budget. I get that. It's not about you. It's about a flawed system. But the cost to defend causes us to think we probably ought to consider an early settlement.

Anybody have a client that said-- OK, raise your hands-- this is happening over and over again for smaller businesses. These cases actually remind me, at times, of what the court in the Eon-Net case called the indicia of extortion. Quite often, this is how it feels to us. It's not about the merits of the case. It's not about the value of the invention or the patent. It's about exploiting the costs of defense. It's happening over and over and over again.

For smaller companies, these litigation dollars are a real hardship. And they divert resources away from innovation and advancements for consumers. My colleagues at smaller companies are experiencing the same type of hold-up or exploitation of the flaws in the system.

Last week, I participated in a roundtable on litigation efficiencies for the Association of Corporate Counsel in San Antonio. Most members are in-house lawyers at smaller companies, like me. We don't have large litigation budgets. We don't have teams of IP specialized lawyers defending the cases. And my colleagues shared experiences very much like mine.

One colleague said, just hold your nose, settle early, get out cheap. You'll save a lot of money if you do. Another colleague talked about operational decisions that his company made because of PAE threats. They didn't put Wi-Fi in their stores, and they didn't implement a calorie counter on their website, because the risks and the threats were too high. Their competitors, however, did take the advantage of a nuisance value settlement and put my colleague's company at a competitive disadvantage.

The smaller company is simply not big enough to fight in most cases. We believe the flaws in the system have a disproportionate impact on small business. And we believe that recent studies have shown that early settlements are the least expensive ways for smaller companies to defend themselves, and do not necessarily lead to bigger expense down the road.

SUZANNE DRENNON MUNCK: Thank you. I just have a quick question on this point before we move onto your here open source experience. And that is, how often do you challenge nuisance suits?

MARY STICH: Well, it depends on how you define challenge.

SUZANNE DRENNON MUNCK: Litigate.

MARY STICH: Well, we have never litigated a nuisance case to trial. We've never gone to a Markman hearing. We've never gone that far, because the costs of defense is always much higher than our opportunity to settle.

SUZANNE DRENNON MUNCK: So Rackspace is also heavily involved with non-proprietary open source technology. And as sort of one of the open source representatives on the panel, I'd like to hear your opinions on how PAE activity impacts open source technology and innovation.

MARY STICH: As the open cloud company, we're especially concerned about the impact of PAE activity on open source innovation. At Rackspace, we collaborate with developers from dozens of other companies to create open source software to power cloud computing. This is the future of technology and the internet, in our view.

Most of the innovation around computer systems and software now happens in the open source community. Open source projects allow large numbers of software developers to collaborate on ways to improve the internet and how businesses and governments work.

Open source is important to this discussion for several reasons. Open source development touches almost every company in America, large or small. Rackspace is best known for our development with OpenStack, a cloud computing system that we created open sourced, and now have spun off into its own foundation. This one open source project is creating value, providing jobs, and driving innovation at hundreds of companies, not just ours.

Today's largest and most important software projects are open source. Linux, Android, OpenStack, Hadoop, Git, are just a few of the projects that are enabling small and large enterprises to innovate, create, and grow.

PAE threats and lawsuits are the single biggest threat to open source innovation. There is no effective way for a technology innovator to discover if they're infringing patents that are simply too numerous and are written in a patent argot that's accessible only to patent professionals. The flawed patent system is a disincentive to publication of innovations.

Open development is also an easier target for PAEs. There's less effort needed to discover potential infringement. We've even heard suspicions of PAEs attending development sessions. This is the complete distortion of the goals of the patent system.

Open innovation models lend themselves to rapid innovation, exacerbating the disparity between the pace of innovation and the life cycle of patent. The pace of innovation in the technology industry, there is no relationship to the 20-year life of a patent.

Large distributors of closed technology have the incentive and the means to address patent risk for the user base and perhaps achieve more efficient resolution of disputes. But there's no single rights folder in an open source community. So each user is left to defend itself, multiplying the aggregate cost of defending a patent assertion. We can think of open source developers as the ultimate small business.

Over the past 15, years open source has developed into a surprising font of innovation. For example, much of the big data driving investment right now came about because of an open source project called Hadoop. Many of the people that work on Hadoop or OpenStack or any other open source project are individual developers that do this work mostly in their spare time and for the love of the art. These developers have no legal team and no support structure. The mere existence of patent assertions in this area of technology has been sufficient to induce developers to pull projects, limit features, and redirect their efforts.

Good examples are the gif and jpeg patents. These were patents that purported to cover the uses of common image formats used extensively on the internet. At the time the patents were brought asserted and litigated, a number of open source projects modified their projects to pull out support of the formats. This was a pure loss to society. Consumers would have had the option of using the open source code for free. Instead, they got nothing. And there wasn't a patent holder or an innovator anywhere that was better off because of it.

SUZANNE DRENNON MUNCK: Thank you very much.

ERICA MINTZER: Sarah, if we could turn to you now. You mentioned that you were brought to RIM because of NTPs. And you have all of this to thank.

SARAH GUICAHRD: I do.

ERICA MINTZER: So you been in since day one. If you could maybe tell us a little bit about some of the trends you're seeing, and whether you think this activity can or is impacting competition?

SARAH GUICAHRD: So I joined RIM right after NTP. And we have only seen increases. We've seen increases in suits. We've seen increases in settlement costs. We've seen increases in litigation costs.

So it definitely has an impact. Large portions of the budget are now devoted to fighting. Internally, we staffed up. I guess it's good for lawyers. All of these activities seem to be good for lawyers. We've staffed up internally to be able to support the fight.

Because at the end of the day, the patent assertion entities, they just have different leverage. They're not subject to counter suits. And we can argue about whether or not, if a practicing entity has divested their patents and you know that that practicing entity did that, what you can do. But at the end of the day, even if you file a suit against the practicing entity who owned the patents before they divested it, you're still in a litigation. You're in another litigation, with discovery, with all the costs that are associated with that.

So basically, the transfer of patents to these patent assertion entities-- because they have the ability to bring suits without the counterweight of having to think about what an entity that manufactures has to think about. We have to think about the effect of the injunction. We have to think about the effect of the settlement, think about the effect of a jury's verdict. All of those things. The PAE doesn't have to worry about a lot of that. And so it's an imbalance.

To my colleague's point about a right to infringe people's patents, RIM absolutely respects the right of third parties. One of things that we're seeing are a lot of these suits are stretches of what the actual invention was. One of our cases-- the lawyers used the concept of a chocolate chip cookie. And I kind of like that one, because I've got young children, and it's a way to explain it to them.

Did you invent the chocolate chip cookie, or do you have a new recipe where you added a new ingredient to the chocolate chip cookie? And I feel like a lot of the PAEs want the juries to believe that they invented the chocolate chip cookie, when in fact they didn't invent the chocolate chip cookie. They may have tweaked the recipe slightly.

And RIM doesn't follow the recipe, the slight tweak, that this assertion entity has, but they've taken this patent that may not have been written as clear as it should have been. And the claims may be broader than they should be. We've talked about some of the quality issues. And yet, they have decided that they invented the chocolate chip cookie.

And I think that that's one of the problems that we're seeing, is that these patents that are in their hands have been tweaked, or changed, or art has been washed, or however you want to think about it, to read on product that was not intended. It wasn't what they were inventing. It's not what they were doing. It's not the space they were looking in. But someone's gotten a hold of it and thought, oh, if I just do this, it'll read on this mass market that it's developed independent of the patent.

I do think that patent assertion entities bring higher prices. They do reduce the pace of innovation. They reduce consumer choice. It can be used to raise rivals' costs. We throw around this concept of what 250,000 patents that might cover a smartphone. And even if we said only 10% of them were litigated, that's 25,000 patents.

And not every patent is equal, not at all. But even if you wanted to go with that assumption, and you said it was one cent per patent, OK, now we're at \$25,000. There aren't a lot of things I'll buy for \$25,000 that include electronics.

So the fact that we look at patents in a vacuum-- When a company is looking at the patent and saying, OK, in a court case, did you infringe this one patent, instead of what factor is it as an overall part of the product? How many other patents are out there in that space? So that goes to the damages theories.

But with the PAEs, they don't have any incentive to put forth a reasonable damage argument. Because they don't have anything that you can infringe. If you take two operating companies, you're going to be disincentivized to put together a crazy damage argument, because you will have to follow that when the sides are flips.

But with PAEs, that's not the case. They don't have to suffer the consequences of any of the case law that they develop in this space.

ERICA MINTZER: And you mentioned PAEs asserting one patent. Do you see a difference in strategies and how operating companies may react to a PAE based on the different sizes of the portfolios?

SARAH GUICAHRD: I do. I think with the serial litigation, if you know that there's going to be patent after patent after patent. But not every patent's created the same. There are patents that you take a license to, because that's what the patent is, and you know that that's what they invented, and you can feel good about it.

A lot of times, it's more like my colleague from Rackspace was saying that it's so expensive to litigate it, it's cheaper to pay them to settle it. And even if you don't think you infringe it, even if you think the patent is wildly invalid, the proof of that and the amount of time and effort and resources and distraction it's going to take greatly exceeds going down that path.

ERICA MINTZER: And are you seeing general pressures on operating companies internally to monetize their patents based on the marketplace that's developed?

SARAH GUICAHRD: I do. I think so. I mean, my colleague from Nokia has said that that's one of things that they do. And I do think that we see companies being pressured, being increasingly pressured, to say, well, if everyone else is doing it, why aren't you doing it? Your boards may be saying, if we're paying out all of this money in settlement costs, and all of this money in litigation costs, why aren't we getting the same return of value on our portfolio? Why aren't you taking advantage of these systems and efforts.

And being a patent attorney and having been in this industry and watching-- I mean, I can remember the first time back in 2000 when a firm came in and said, hey, there's this great court. It's called the ITC. It's a great place to do patent litigation. You should really look into it.

Watching all of these changes, I do think that companies are being-- If you're going to spend the money, you should be making the money. And we've spent all this money to develop patent portfolios, what are you doing about it?

We're in the same position as Cisco. The amount of money we spend defending ourselves against patent assertions way outpaces the amount of money we spend developing our patents internally.

ERICA MINTZER: Many more questions, but don't have time. Thank you very much. I appreciate it. Now Mallun, you're on. In your opening remarks, you were talking about PAEs and about RPX. So if you could just tell us. It sounds like you do see a difference between RPX and PAE, and what you believe those distinctions may be.

MALLUN YEN: Sure. So there's many reasons why we're not a PAE, but let me focus on just three, for the sake of time today. So per Colleen and per the FTC definition, a PAE is a company that asserts patents against existing products as a business model. RPX's entire business model is based on quite the opposite.

First, by definition, we're not an NPE because we never assert or litigate the patents that we bought. Second, our mission is to reduce our clients' costs and risks from PAEs. So clients don't join RPX to avoid being sued by us. They know we won't sue.

In fact, it's worth noting that a number of companies join RPX, even though we may not have a single patent in our portfolio that's applicable to them. It's the idea of proactively coming together, efficiently, with a number of other companies, to reduce the risk from patents.

So in fact, if a client determines that we're not clearing the risk and we're not reducing their costs, then we assume they're not going to renew their membership. So you can see, our interests are aligned. Our business model and our business is only successful, and we can only grow our business, if we help our clients be successful in reducing their costs and risks from NPEs.

And then third, PAEs don't have a relationship of trust with their licensees. One of the benefits of having aligned interests is that you can develop relationships of trust. We can be remarkably transparent, and we are.

Anyone can visit our website, calculate our rates. All of our patent assignments are recorded with the PTO in our own name. Every client gets a license to every patent that we own. We every client can choose to, if they want to, look at all of the patents that we're looking at acquiring. And we even have a client portal, where we put a lot of this information that Colleen has referenced and otherwise on a self-served basis. Anything that we can do in sharing all this market intelligence and information to help our clients in this battle, we do.

So the answer is, no, we're not a PAE. By definition, by mission, and by alignment of interests we're not a PAE.

ERICA MINTZER: And does RPX sell off some of its patents.

MALLUN YEN: So it does periodically sell off its patents. And in fact, our clients encourage and prefer that we actually do so periodically. So RPX is a for-profit company. And our duty is to our members. How can we maximize the amount of capital that we deploy to clear risk from patents for our members? But then we can actually recycle that capital and buy more risky patents and clear the risk from those.

But because we sell the patents subject to all the licenses that we've granted in the case of currently over 125 licenses, no matter what happens to the patent in the future, our clients are covered. So whether we hold a patent or whether we sell it, our clients are protected. Some people call this the catch-and-release model.

And one other point to make here is that when we sell off our patents, we always offer them first to our operating companies. And to date, we've sold nine portfolios. And eight of those portfolios have been bought by operating companies. And one of those portfolios was bought by a trust.

ERICA MINTZER: And how do you respond to some who may argue that this catch-and-release and release is just-- How do you distinguish that from assertion or threat of assertion?

MALLUN YEN: So like I said, we're a for-profit company. We're not a public service organization. The idea of defensive patent aggregation really only works if there's a network effect. If there's enough companies that join together to defend themselves, similar to what Colleen had talked about, although we never tell people not to settle. And if people thought that when we bought the patents they would never see the light of day, then this business model would have never gotten off the ground.

And so everyone has the opportunity to join RPX. It's a preset rate card based on a portion of your net operating income, so similar to what Carl said in terms of what you need for economic efficiency. And so this only works as a defensive tool because of the fact that we do periodically sell off the patents.

ERICA MINTZER: And you have both been at an operating company and now at RPX. Maybe you've got some insights into what you see as the transaction costs of the PAE Activity.

MALLUN YEN: Yes. Yes, the high transaction costs that we are all painfully aware of. So we estimate, at RPX, that in most cases less than 10% to 30% of what operating companies spend resolving, and PAE matters actually flows this into the hands of inventors. And so let me give you an example that actually is indicative of a number of transactions. The Mosaid Nokia transaction I put in probably a different category, as we've heard today. But let me just walk you through this example, because it's very telling.

So about a year ago, a prominent PAE advisory firm was raising money for a patent assertion campaign. And here's the economics that they pitched, which is consistent with what we're seeing. So they estimated that they would bring-- there's a portfolio-- they estimated that they would bring in \$40 million of revenue by suing 40 companies. And they estimated that they would collect \$1 million from each.

This is very laid out in this nice little chart. Of that \$40 million, \$5 million would go to pay for plaintiff's attorneys. And \$27 million would go to the advisory firm, investors, and other costs, like expert fees, et cetera. And so, when you do the math, if you've done the math, only \$8 million of that \$40 million was going to the inventor.

Now, don't even stop there. Because given that based on our experience, defendants of this size and this magnitude in these types of cases would spend, let's say, an average of \$1 million defending themselves per case. So that's \$40 million of defense costs plus \$40 million in settlement cost, which is frankly roughly the same split that we're seeing as Colleen mentioned.

And so it's \$80 million of total spend by operating companies to net the patent holder or the inventor \$8 million. And so that's a 90% transaction costs, to which I think that no one would argue is an efficient market.

And I can't stop but just make this point, which is think of how much better off we would be if that \$72 million that did not go to the patent holder or the inventor-- What if that \$72 million could be spent by operating company on innovation, R&D, and bringing new products to market?

And then just one more point on this, because I feel so strongly about this. And by the way, this doesn't take into account the distraction from senior management, the hours of your engineers having to go to faraway jurisdictions or reading through these patents, or the diversion of resources from your own R&D budget, from your own filing of patents, et cetera. So this is just one little example. Thought I'd share.

ERICA MINTZER: And one last question. You mentioned that as part of your business, you monitor the marketplace and patent litigation. Could you just tell us a little bit about what you're seeing in terms of trends?

MALLUN YEN: Sure. So just a note on the data first. Because as everyone's talked about, there's a lack of transparency. It's also incredibly hard to get clean data in this area. And so we meticulously track every patent litigation, every PAE plaintiff, every company, every litigated patent, every portfolio put up for sale, every assignment. There's otherwise no marketplace or data source that you can go to to look this stuff up.

And then you need to clean this and analyze it. For instance, I don't know if you're aware, unless you clean this data, is that there's 2,424 ways that Samsung appears in the court docket when you take into account different corporate entities. And so when we talk about unique defendants, as some of the folks have talked about here, that is counted as just one. So it's incredibly challenging to clean the data. But because we're using this data every day in our business, we are meticulously cleaning it every day.

So just a few trends. First, no surprise here, PAEs remains a significant issue for many companies. So in 2011, we tracked a 1,509 PAE cases against 2,995 distinct companies in US District Court. So that's up from 453 cases against 933 distinct companies or unique companies in 2005. So a 221% percent increase in number of companies sued in the past six years.

Second, everyone is feeling the pain, as we've heard here. It's not just the biggest tech companies. It's a small company. The big tech companies are certainly feeling the brunt of it. Apple was sued in 48 times by PAEs last year, almost once a week, and currently has 74 PAE cases pending against it.

However, a surprising number of smaller companies-- or maybe not surprising, given the panel-- a number of smaller companies and non-tech companies are also impacted. Companies under \$1 billion of revenue, as Mary mentioned, account for 63% of the unique PAE defendants in 2011. And private companies account for 76% of the cases.

And companies that use technology are also being tagged, Build-A-Bear, Dunkin' Donuts, IHOP, Burberry, et cetera. They all have been targets.

Third, much of the PAE activity comes from a handful of very prolific PAEs. One PAE we tracked had brought 1,780 different actions. And another brought 1,872. And so what we consider serial or programmatic PAEs account for 25% of the defendants in 2011. Colleen also had some notes on this.

And then the final point-- because I could go on and on, but I will save you the time-- is that to the marketplace for patents remains vibrant. As we've talked about here, are we just at the beginning? Is it going to trickle out? No. There's lots of activity. There's lots of patents.

So we see virtually every brokered patent transaction in the market. And we've tracked 3,213 brokered portfolios, multiple patents in the portfolios, since 2008. On average, we see about 70 such brokered portfolios for sale every month. And when they transact, we estimate that 50% to 60% of them transact to PAEs. And so, the market activity for the sheer number of portfolios has remained about constant, although the absolute number of patents within those portfolios has increased.

ERICA MINTZER: Thank you so much.

SUZANNE DRENNON MUNCK: So we're going to this panel by talking to Nokia and Mosaid. And one of the reasons why we wanted to do this was because Nokia, you have been a target of PAEs suits, and then you also decided to transfer your IP to a PAE. And so, honestly, I think we could do an entire panel with the two of you. So I do apologize the short amount of time. But I'd like to spend just a couple minutes now talking about your experiences as a target of PAE suits. If you could explain that to us, please.

PAUL MELIN: So as I mentioned earlier, we are a very frequently. We have been, according to some statistics, among the top 10 most sued companies in the US. And I have to say that I agree with a lot of the things that people who generally have had different points of view than we are representing here today have said about the inefficiencies in the system.

So we would very much welcome clarification in the standard for domestic industry in the ITC. For example, issues like working on fee shifting, erasing some of the barrier for filing lawsuits on questionable patents, in terms of the merits, as well as reducing the cost of discovery. And a lot of these things are being worked on by the respective authorities. And that's very good and welcome work.

SUZANNE DRENNON MUNCK: And you mentioned that you're one of the top 10 most sued in the United States. Has that trend changed over time, or has it been relatively consistent?

PAUL MELIN: I haven't seen any time series on that. That was just kind of-- RPX, thank you for your statistics.

SUZANNE DRENNON MUNCK: Also, I really want to talk to you about the transfer to Mosaid. But I also want to give you an opportunity to say anything else you'd like to say as a target. Is there anything else you'd like to raise?

PAUL MELIN: I just mentioned the kind of the point of view that has been raised in this panel, that this imbalance between a non-practicing entity and an operating company holding patents. And in those arguments, there is kind of an inbuilt assumption of an entitlement to a royalty-free cross license. And we often see negotiations, this kind of argument, that if we are offering a license under thousands of patents with billions of dollars of investment behind them, and on the

other side is a mid-sized competitor, who has 10 patents. And their the argument is that you sue us on, at most, 10 patents. We'll sue you back on 10 patents, and we are even. Right?

Is that fair to force our paying licensees, to force our shareholders, to expect to get for free such substantial licensees? Of course not.

And the fact that we have been able to tap into this liquid effective layer of monetizers, to certain extent, has not only directly enabled us to realize some of that value in our own investment, it has also supported the discussions that we have based on the rest of our portfolio. And in fact, we have been able to save substantial litigation costs by not having to enforce our own patents, because some of their prospective licensees recognize that there is actually value behind the larger portfolio that we are able to bring to them.

And that is a statistic that you don't see anywhere. It's lawsuits that were never filed because the existence of a more efficient market.

SUZANNE DRENNON MUNCK: Thank you. So turning, as you mentioned your transfer to Mosaid, how did Nokia decide to engage in that transfer? Was there pressure to monetize? And how did you choose which intellectual property you were going to transfer out?

PAUL MELIN: So we decided quite some time ago that 10,000 patent families is a big enough portfolio. We are not able to manage a large portfolio effectively, know exactly what's in there. That provides a large enough asset base for us to protect our proprietary technologies and product differentiation. It provides a sufficient scope to have a strong portfolio in the core areas where we can operate our own licensing. And it requires substantial investment. So the cost of growing the portfolio beyond 10,000 patent families, we just decided we are not going to do.

Now however, we have a relatively young portfolio. So not much of the patents are yet expiring. We still want to invent more and renew the portfolio and protect the new innovation that Nokia is engaging on. So we file about 1,000 new patent priority applications each year.

So keeping the portfolio at this stable level while continuing to file more within these costs constraints means that we have the capacity or imperative to divest or otherwise get ride of somewhere between 600 to 800 patent families per year. And that's what we do.

And in the case of Mosaid, that was an example of where we identified a certain focus portfolio from our product portfolio, which we thought would be suitable for other investors. We were lucky enough to find a passive investor who wanted to take an economic share in that portfolio and provide us certain guaranteed return. It's been publicly said at Microsoft took that road. They are a passive investor in this portfolio. And then thereafter, through competitive processes, we found a good buyer in Mosaid, who were able to take on the portfolio and carry the risk from there on.

SUZANNE DRENNON MUNCK: Thank you. And could you further explain Microsoft's role in the transaction? How does Nokia monetize the IP that you transferred to Mosaid? How does the money come back to Nokia?

PAUL MELIN: Well, as I said, when we divest patents, we truly divest them. So we have absolutely no operational involvement or any level of control in these patents that have been sold. So we have a passive economic interest in those patents. It was not entirely paid up front, so we do have a delayed payment, partly, for the assets. And our role is equally passive. They just funded part of the transaction, from our point of view.

SUZANNE DRENNON MUNCK: And how does the delayed payment work?

PAUL MELIN: Well, maybe Mosaid can answer this better, because it has been published in their security reports. But I don't want to step over what has been said in public.

ERICA MINTZER: Just one question. We had mentioned litigation in the US, and Nokia being one of the top targets. I was just wondering if you're seeing different things across geographies. Is this patent assertion something that's mostly a US-centric issue?

PAUL MELIN: We do have a significant amount of patent litigation also in Europe, in Germany in particular, and in various countries such as China. But that in terms of the number of cases, in terms of the intensity of course, the US is unparalleled.

ERICA MINTZER: What about just the plaintiffs being operating companies or what were called patent assertion entities? Do you see differences there?

PAUL MELIN: Not much differences.

SUZANNE DRENNON MUNCK: The intellectual property that you transferred out, is there an average age of that IP where you're transferring out applications or older IP?

PAUL MELIN: We rarely transfer out patents in the early application phase for two reasons. If the technology's not yet proven, we may not yet know what the actual value for it. We may want to keep some of those technologies proprietary.

And that's also one of the reasons we can't ourselves licenses everything. We want to retain the option to protect proprietary features as well. It's much easier to make that determination at a later stage when the portfolios are mature and the technology is either proven or at least the risks are more contained. So on average, we would divest the older and more proven technologies.

SUZANNE DRENNON MUNCK: And just one final question-- because as I mentioned, I could talk to you all day-- why are you choosing to divest proven technologies? Wouldn't that be bringing money back to Nokia?

PAUL MELIN: Of course when we divest patents, we don't divest that we want to differentiate with. So those are technologies that either have been broadly taken into use in an unauthorized manner by our competitors or otherwise relate to technologies where somebody else is willing to take the investment. So things that we want to keep proprietary we, of course, keep for ourselves.

SUZANNE DRENNON MUNCK: And thank you very much for openness on this point. Is there anything that you think that the agencies should be doing as sort of a final wrap up before I move on to talk with Scott?

PAUL MELIN: As I said earlier, I don't think there is any need for a grand reform. But many of these smaller things can definitely be improved by the various things. And maybe just one final comment that has been several times mentioned today that the number of patents in the smartphone industry could be even 250,000. That's an absurd number.

And just an example that was mentioned, that if you paid one cent for each such patent that you would end up with \$2,500 per phone. Of course nobody's paying that kind of amount. It would be impossible. And that kind of proves the point.

So what you see on the market is vigorous competition. And patents are not preventing anybody's entry into mobile phones.

SUZANNE DRENNON MUNCK: Well, thank you very much. And Scott, we've saved the best for last.

SCOTT BURT: So I'm between everybody and lunch.

SUZANNE DRENNON MUNCK: That's what I'm saying.

SCOTT BURT: I'll keep it short.

SUZANNE DRENNON MUNCK: I cut you off earlier when you were talking about the Core Wireless. And I apologize for that, but I did want to get everyone to lunch. So is there any other point that you want to make on that you finish up? Because I did sort of cut you off in the middle.

SCOTT BURT: No. I think that for us it's an unusually large transaction. But in many ways, it's very typical, where we have an arrangement with a technology leader, someone who's established, who's done a lot of work, has a portfolio to prove it. And then we take that portfolio and we monetize it and, in a lot of cases, return a substantial amount of money back on the back end.

SUZANNE DRENNON MUNCK: So one of things we're going to look at this afternoon is the potential efficiencies of the PAE model. And one of the things you hear is that it facilitates tech transfer. And I wanted to get your opinion on that.

SCOTT BURT: Well, I think it represents tech transfer. We certainly have our own research and development, where we're working in flash memory field right now. And we are developing a substantial portfolio of that. And we are licensing that portfolio. But we also hope to do some sort of tech transfer as well to develop that into a full-fledged business, because we're a small company. So that's an example of where we're doing it directly.

I think otherwise, what we're doing represents a transfer of the value from the people who created the market, created the technology to the people who are currently implementing or using the technology.

SUZANNE DRENNON MUNCK: And we asked this before. One of the things we're interested in collecting is some sort of evidence or experiences of inventors who may have made more money by working with a PAE than they would have been able to do by themselves. And I'm not sure that that's something that you have today, because we've talked about this. But if it's something that you're able to provide us going forward, that would be--

SCOTT BURT: I think in a sense the proof is in the pudding, because the people that we work with tend to be pretty large, sophisticated companies that have their own portfolios, very often their own licensing programs. And so they recognize the efficiencies. They wouldn't be coming to us if they didn't think we could do it maybe better, or at least as well.

SUZANNE DRENNON MUNCK: And before we turn to sort of the Nokia issues, I was wondering if there are other efficiencies you think we should be thinking about in the afternoon?

SCOTT BURT: No. I don't think so. I think I generally agree with Paul. I'm in the camp that thinks the patent market is generally working pretty well.

SUZANNE DRENNON MUNCK: And so I actually apologize. One more question I wanted to ask you before moving into Nokia. Does Mosaid publicize its real parties in interest?

SCOTT BURT: I'm sorry?

SUZANNE DRENNON MUNCK: Do you publicize the ownership of your intellectual property and real parties in interest? Because one of the questions that we're looking at is the transparency of PAEs.

SCOTT BURT: Yeah. Of course we do. One of the things we want everyone to know is what is in our portfolio, the size of the portfolio, but really the value of the portfolio. So with some exceptions, Core Wireless being a notable one, the patents that we own are held in the name of Mosaid. And so you can go to the USPTO website and do a search.

SUZANNE DRENNON MUNCK: Do you ever sell intellectual property that you own?

SCOTT BURT: Absolutely.

SUZANNE DRENNON MUNCK: And how do you decide to do that?

SCOTT BURT: Absolutely. It's not a large part of our business, but it is a consistent part of our business. We do it in two instances. One is where, perhaps, we have bought a larger portfolio that fits with our strategic interests, and there's part of that portfolio that doesn't quite fit. We may sell that off. Or we have a portfolio, for whatever reason, that is simply not something that we want to pursue.

And then the other reason is where people come to us and they say, we're looking for a portfolio. Maybe we're going into a new technology field where we don't have any patents, because we haven't been in this field before, but we need patents. And what do you have? And again, that goes to some of the transparency. They can find out what we've done in our portfolio.

SUZANNE DRENNON MUNCK: How often does that happen?

SCOTT BURT: Which one? You mean just general sale or--

SUZANNE DRENNON MUNCK: Both general sale and then companies coming to you asking for specific IP.

SCOTT BURT: I would be surprised if we didn't do at least one sales transaction of some size every month or two. Like I say, it's not a big part of our business, but it is a steady part.

SUZANNE DRENNON MUNCK: And do you have any limitations on the parties to whom you will assign intellectual property?

SCOTT BURT: No. Absolutely not.

SUZANNE DRENNON MUNCK: And why is that?

SCOTT BURT: We're trying to be efficient here in the marketplace. And we want the patents to be where people value them. And so we have no restrictions on what they do, nor would we want restrictions on what we do when we buy patents.

SUZANNE DRENNON MUNCK: And one of the points that Paul made was on the monetization of the Nokia IP. I was wondering if you could answer the question that I'd asked him, how the monetization worked and flowed?

SCOTT BURT: Well, from our perspective, it's pretty straightforward. Core Wireless, which is the entity that owns this portfolio, Mosaid essentially helps Core Wireless do that. We have a dedicated team that works very much on that portfolio.

And we, Core Wireless, and/or Mosaid, we put up all the upfront in that we've done. We do the claim charts. We go to the meetings. We meet with people. We fly to Asia. We do everything to monetize that, ideally, through license agreements.

And then whenever we get revenue, the split is essentially we keep a third. 2/3 goes back to Nokia. And then they do what they will with it.

SUZANNE DRENNON MUNCK: And you mentioned license agreements. How often are you able to achieve license agreements versus moving into litigation?

SCOTT BURT: Well, I think that's an important point here, because we are a licensing company. We're an IP management company, which means we take patents, we take patent applications.

We think we really improve upon whatever comes into our company. And we license it. That is our model. We're not a patent litigation company.

Now, that's not to say we don't litigate. But for us, litigation is what happens when you have a license negotiation that hasn't come to an agreement. And so very typically, that can be after years of license negotiations with the company.

SUZANNE DRENNON MUNCK: As I mentioned, I could talk to you all day. And I've got about 100 other questions. But we're also standing between these guys' lunch. So is there anything else that you think that the agency should be doing on this score, as sort of wrap-up point?

SCOTT BURT: Well, I just really appreciate the opportunity that you have these workshops and you have invited us to the panel. Because it is a complicated market out there. There's a lot of different people doing a lot of different things in this area. And I think the more we understand, the more we understand there aren't cartoon heroes and there aren't cartoon villains, that there's a lot of different people doing a lot of things, there's not a one-size-fits-all solution to this. And I think the most part, I think I really appreciate the opportunity just to educate everyone, including yourselves, about what's going on.

SUZANNE DRENNON MUNCK: Great. Well, I'd like to thank everyone on the panel.

ERICA MINTZER: I would like to thank everyone as well. I know time was short, so we do encourage everyone to please take advantage of the public comment period that we're going to have, it until March 10.

SUZANNE DRENNON MUNCK: We're holding it open longer than usual, because we absolutely want to hear from all of you. So we're running a little bit behind. Why don't we come back from lunch in an hour? So that'd put us at 1:25.

Now, the most important thing is that you don't lose your badge. Because we cannot be responsible for what happens to you if you lose your badge. Seriously. I'm not kidding. So hold onto those, and get something good to eat, and we'll see you in an hour. Thank you very much.