

>>MALE SPEAKER

We're going to start up again now. We're hoping the webcast is started again as well. I want to thank you all for joining our second panel of the day. We're going to hear from representatives of the IT and electronics industries who are going to offer a difference set of perspectives on operation of IP and technology markets, whether those markets operate efficiently and transparently and also what can be done to improve them. In particular they'll address licensing practices and the issue of patents. And uncertainty in the patent systems notice function. We have got a terrific panel of industry leaders whose distinguished biographies are on the website. First I'll introduce myself, I'm Bill Atkinson (ph), attorney in the General Council's office working on this end of this project. Our panelists are Sara Harris, Vice President and chief counsel for Intellectual Property for AOL, responsible for managing AOL Intellectual Property issues those related to pa ten litigation, prosecution and copyright trademarks and names. Prior to AOL she was the chief international property council at Counsel Industries and held several different IP related roles at Hewlett-Packard and Compaq. Noreen Krall is vice President and chief IP counsel Intellectual Property Law Sun Microsystems, she provides Legal Counsel regarding awe facets of Intellectual Property assets. She -- engagement on Intellectual Property Law policy issues. In particular she is responsible for the management of sup's patent and trademark portfolios and managing all commercial Intellectual Property litigation for sun. Then we have Alex Rogers, Senior Vice President and Legal Counsel for Qualcomm. He is head of Qualcomm's litigation group and managed Intellectual Property and commercial litigation matters for the company since joining in January 2001. Previously he was a partner with Gary Kerry ware and Frederick. We also have Matt Sarboraria, Oracle Corporation. He covers patent practice, licensing, procurement and due diligence in mergers an acquisitions. His litigation experience includes cases involving database and application software, semiconductors computer networking and telecommunications equipment. We also have Russ Sliver, Chief Patent Counsel for Micron Technology based in Boise Idaho. His responsibilities include managing the company's patent portfolio and advising company management regarding various Intellectual Property and related patent issues. Prior to joining micron Mr. Sliver was in private practice specializing in IT matters. We have John Thorne Senior Vice President and Deputy General Counsel of Verizon Communications working on antitrust, Intellectual Property privacy merger review and strategic initiatives. He's also an adjunct faculty member at Columbia law school and Georgetown university law center. Petition lawyers in the room will know that he was won three landmark antitrust cases in the Supreme Court over the last ten years. Bell Atlantic against Thrombly, Verizon. His Intellectual Property group was maimed one of the five best practices in the world by global council awards 2008. He co-author of academic treatises on telecommunications law and publish and spoken widely. I'm reliably informed he is inventor on one U.S. patent for disappearing email.

>>SARAH HARRIS

I would like to start with a broad question to allow each panelist to introduce their companies in the role patents play in their companies.

>>FEMALE SPEAKER

Sara.

>>SARAH HARRIS

Thank you for having me. I am very honored to be a member of this panel with my distinguished colleagues. As most of you know AOL is that subscriber-based email Internet company. That's not exactly what we are anymore. We're actually

-- we have the largest ad network in the country if not the world and produce more content on the web -- more content on the web that's viewed by more users than any other country. Excuse me, company. So the consequence we have a lot of moving parts going on. But one of the most important roles patents play for us, we use it to encourage innovation. Our company values our patents as significant assets. We -- when we're considering our uses of them, there's not really a primary purpose, we look at all different avenues depending on the situation. We have about 500 patents. We have 15 active patent litigations that are primarily by non-practicing entities. So we have a very active patent docket right now.

>>FEMALE SPEAKER  
Noreen.

>>NOREEN KRALL  
Good morning, good afternoon, everyone and thank you for inviting me. Sun Microsystems is an industry-leading global networking company that develops, manufactures and commercializes computer hardware, microprocessor technology, software and related services. Sun has over 13 billion in annual revenues across every computer market including telecommunications, financial services, manufacturing, retail, government, healthcare, and consumer electronics. Sun reinvests between 15 and 20% of its annual revenues back into R&D annually, an investment that the percentage of revenues is one of the largest in the tech industry. As a result this has created a vast portfolio of IP assets and patents play a key role in our IP strategy. The primary role of Sun's patents is to drive and promote greater adoption of products and technologies and to expand the Sun technological footprint in the marketplace.

>>MATTHEW SARBORARIA  
Good morning. Thank you to the Commission for hosting this important series of hearings, pleasure to be here. Oracle is the world's largest enterprise software company. That means we develop and sell the software that enables businesses to run their business. From the relational database software used for storing data to middleware software which provides the infrastructure for retrieving data from a database and interacting with application programs to the application programs the businesses use to run their day-to-day operations. Things like Human Resources, payroll, accounting, supply chain management, customer relationship management, and on and on. We employ over 80,000 people worldwide, more than 20,000 of those employees are in research and development. We invest over \$2 billion annually in research and development. Like many companies in the technology industry, a substantial portion of the value of our company lies in the Intellectual Property that we generate. So we rely on a mix of protections for our investment in that Intellectual Property. Patents are certainly a part of that mix. We also rely on trade secret and copyright protection as well. We file over 300 patent applications a year and we have a portfolio of over 2000 active patents worldwide. So we have a very strong interest as a user of the patent system in a well-functioning, well-balanced patent system. In recent years we have seen a dramatic uptick in patent litigation. The first 23 years of our company from 1977 founding of the company in 1977 to the year 2000, we hadn't been involved in a single patent litigation. Since then we have had over 20. Virtually all of those cases have been brought by non-practicing entities. So we see a need for reform of the patent law to address some of those problems.

>>FEMALE SPEAKER  
Alex.

>>ALEXANDER ROGERS

Thank you very much for having me. Thank you for that introduction. Qualcomm is a semiconductor and software company in part. And a licensing company in part. We're the semiconductor -- for wireless in the world. We are the largest semiconductor company in the world. We consider ourselves to be a technology transfer company. Qualcomm was founded by Irwin Jacobs in 1985. His idea for the company was to look for new ideas to develop and essentially get out into the market. It was funded, the Qualcomm originally was funded through patent licensing. The early patents last I checked has been noted among the top ten most cited patents in the world. So as a result of our start as a business trying to get new technology into the market, the licensing part of our business has been ongoing and ultimately very successful. We have over 160 licensees. We have approximately 7,000 issued patents, approximately 50,000 issued patents pending applications around the world. We have spend over 20% of our budget on R&D. We have done that for years. That's an enormous amount of R&D spend. It's well over half of our licensing revenue. As a product company and a licensing company we see both sides of this patent reform issue going on, certainly both sides of the issues presented in these hearings. We see the patent system not necessarily being perfect, but we don't see it in crisis. We like some of the other commentators here are very concerned about unintended consequences. We'd like to make sure that different views be considered and any form of reform be taken very slowly.

>>FEMALE SPEAKER

Thank you. Russ.

>>RUSS SLIVER

Thank you to the Commission for inviting me to participate today. Micron Technology is a semiconductor manufacturing company. In the last 30 years since our -- since the start of the company we have gone from a small start up company to one of the world's leading innovators in advanced memory solutions. We have R&D operations based in Boise, Idaho with manufacturing in Boise, Utah and Virginia. We manufacture advanced DRAM flash and imager chips. Micron invests a significant amount of money in R&D every year and that has led to a U.S. patent portfolio in excess of 18,000 patents. We are annually ranked among top companies in the number of patents but in addition we're also ranked consistently by third parties having some of the highest quality and strength portfolio in the semiconductor industry. Micron has used its patent portfolio to present copy of our innovations and provide freedom of operations. Though we often use IP to advance business transactions, our portfolio is not developed with the strategic plan of monetizing through licensing or litigation. Micron continues to invest significant amounts of resources into this large patent portfolio to prevent -- provide freedom of manufacturing so that we can provide products to consumers and jobs for our employees. As detailed in the Commission's 2003 report micron continues to believe that the primary drive for innovation at least in our industry is competition. We have seen a significant increase in patent license request and patent litigation, particularly by non-practicing entities that drain our economic and executive resources that could be used better for micron operation R&D. Thank you.

>>FEMALE SPEAKER

John.

>>JOHN THORNE

I would like to start, I don't want to go on too long but I could. Appreciating the FTC's holding these hearings. This is a good time to have somebody with the consumer's point of view looking at the changes that have occurred since your

2003 report. We have seen an explosion in the number of patents being issued and enforced, an explosion in the number of patents sold on the secondary markets. I anticipate with the current financial crisis that companies, big companies, the microns the suns maybe not you particularly are going to be selling even more patents because they can and it's a way to raise money. As was mentioned in the first panel, Congress is looking into some serious reforms. I think the more important reforms are likely to come through the courts. You can see for example as a by-product of the work the FTC did in its 2003 report, just going to give a couple of examples. When the FTC urged a more thoughtful application of the test for obviousness it was followed up by the Supreme Court embracing the suggestions in the KSR decision. The 2003 report real world non-practicing entities were using injunction not to stop a company but additional leverage and licensing bargains and the FTC report was cited which is one I understood in the eBay case. As Alex knows, the FTC found the patent hold up can arise in standard setting organizations. And the third circuit then issued a key decision that repeatedly cited the DoJ speeches so it's a good time to look at this again. Off lot of ability to make an impression if all you do is issue a report. Verizon is a communications company. If you are a subscriber to consumer reports the January issue again as many issues many Januaries as I have seen rated Verizon Wireless the best wireless provider in the country. Also said our telephone service and Internet service and video service were the best in the country. For enterprise services we bought MCI a global enterprise provider, consumer reports doesn't rate that. So you have to look at some of the enterprise publications to see that we are a very good enterprise provider, telephony magazine gave us their 2008 innovation award for enterprise services. The reason we're good at what we do is we spent a lot of money building systems. I actually looked at this again just to see how we faired. In the past five years adding up the capital invested by large firms, Verizon spent more CapEx than any other firm over the five-year period. We didn't win that year but over the five-year period we were about \$80 billion of CapEx, GE was less, ExxonMobil, Wal-Mart at 69. IBM about 25 billion invest bud we're spending an awful lot of money on building high quality fiber and wireless networks. So patents are important to us for three reasons. One is we have about 5,000 patent assets, about two-thirds issue, one-third pending patent applications. Our rate of patenting, I was happy to hear on the first panel, about three Yales a year. About three time it is rate of Yales patenting. We are beginning to enforce more than in the past the patents that we have. Second, we're in an increasing number of -- can I use the word troll patent cases. We have something like two dozen cases pending against us now and I think all but one are filed by companies that don't practice pa tens just in the business of acquiring patents to bring litigation. The third way the patents are important to us I found out that Verizon, a large company, we have a large number of employees with large families an retirees and we're buying all medicines. In the category of prescription is about a billion dollars a year, so the strength of Pharma patents is of interest to us also. Isle stop there. Thanks again for hosting this.

>>FEMALE SPEAKER

A lot of important and difference perspectives there. Can any panelists comment on the different ways that you use patents within your company, to what extent you use the patent to prevent copying of an innovation within the company versus accumulating pa tens for defensive purposes and are there any other mechanisms or any other uses of patents, how those two different uses affect your patent strategy. Russ, I know that defensive patenting and portfolio cross licensing is an important mechanism in the semiconductor industry. Could you describe that for us?

>>RUSS SLIVER

I'll try to. A little history would help from perspective as a start-up company in the basically the late '70s, early '80s we were somewhat late to the game in that technology, there was innovation from Texas instruments, IBM and others in a large patent portfolio. So we found ourselves in a position where to be able to participate in the industry we had to pay license fees to those companies and we did so. But as we were paying those fees and innovating our own technology, we our own patent portfolio as the technology advanced. We acquire ad fairly substantial patent portfolio, strong innovation, which allowed us to enter into cross license agreements with other manufacturers.

>>FEMALE SPEAKER

When you say acquire did you mean purchase? Or internally?

>>RUSS SLIVER

Internally created. We did not purchase any assets. We bill our own patent, internal patent portfolio as a mechanism to allow us to enter into those negotiations with some kind of bargaining power. As the years went on and the portfolios grew for our portfolio grew we were able to enter into cross license agreements more favorable to allow us to basically retain our earnings ourselves. That was the start of our patent portfolio. There's been a lot of discussion in an earlier report about patent flooding and creating large portfolios around some initial innovation. That continues to drive our reasons for filing a large number of patents. With the creation of our new products and life cycle we need to make sure that others aren't going to patent around where our next advance is going to be. So we tried to continue to keep the portfolio large. Does that help?

>>FEMALE SPEAKER

Very much thank you. Have other companies had similar experiences that you could speak to, the need to cross license, Alex?

>>ALEXANDER ROGERS

Should we do the card routine.

>>FEMALE SPEAKER

turn up your table at the present time and we'll call on you. We are creating a transcript by the way so if you could speak into the microphone that will help the reporter quite a bit. Thank you.

>>ALEXANDER ROGERS

In bound and out bound licensing. Qualcomm when it started was about half -- with a half dozen people looking to do some innovation they hit on an idea that was essentially rejected as a commercially feasible idea. And so because they were left with an open field to do something nobody else wanted to do with what was possible, and because they made it work, these engineering were able to establish a pioneering patent portfolio. Licensing was absolutely critical outbound licensing was critical in order to make the enterprise successful, it simply would have failed because it was in an industry that had extremely large, established vertically integrated companies from chipset to handset to other forms of equipment. And so we had to out bound license, had to have these other companies essentially competitors adopt the technology. The patent position was essential in order to get them to do that not only for revenue but to adopt the technology. And so we were able to form a licensing program. That enabled us also on the cross licensing side to bring in patents through licensing. Because we have 160 licensees, we're able to cross license their patents, able to pass those through to our customer whose are actually buying our chips, buying our

software and building product. And we're able to reduce aggregate the cost of the industry for a number of people who rely on our products.

>>FEMALE SPEAKER

Noreen.

>>NOREEN KRALL

Thank you for a slightly different perspective on licensing and defensive patenting as well. We have taken a different view of our patent portfolio, patents bring great value to shareholders and are an important set for any corporation to hold. We however focus a lot of outlicensing activities to drive the adoption of our technology. For example, releasing our operating system under an open source license that created a community of patent right associated with it so the greater the access to our portfolio is actually by adopting that technology and following the rules of the open source license under which it was released under. We have used portfolio to maintain -- our portfolio to maintain our standardization of our platforms. If you look at the Java platform for the last decade through technology licensing and distribution agreements maintaining compatibility with that platform you get access to all of the background Intellectual Property sun developed since the early to mid '90s in the Java technology areas. So it's certainly outlicensing of our IP and patents in particular but not in a pure revenue generating type of a program. We're approaching people saying take a license or some kind of cross license with us. Then through Russ's comments the other aspect of our portfolio is really to build -- protect the innovation and R&D investment by sun Microsystems but also to have a portfolio that you can use to defend yourself or defend your customers or your technology communities if they are approached or have patent assertions against them by your competitors. Female fell yes, Sara.

>>SARAH HARRIS

I'll echo Noreen's comment. In the Internet industry to my knowledge there's just not a lot of cross licensing. Most companies that are competitors are -- we use outlicensing to promote the adoption of our products as well. We're involved in 25 standards organizations, we do a lot of open source licensing as well. From the defensive standpoint we were one of the first people in the Internet space, we do have patents that are pretty pioneering, it has worked to our benefit because we have seen a tremendous increase in activity in people wanting to license their patents. And we have been able to come back and use our portfolio defensively. So that's promoted an encouraged us to continue filing more applications as well.

>>FEMALE SPEAKER

You used your portfolio offensively in the sense of preventing others from using the technology, any of you? John?

>>JOHN THORNE

We sued Vonage. My shorthand characterization, they didn't do anything except infringe our patents. They added no value beyond that. We wanted an injunction upheld in the Federal Government. It was a weak player. We ended up trading the injunction for cash. We have since filed a lawsuit against Cox communication which is now pending in the Federal circuit and there are depending how you count them three our lawsuits between Verizon and charter communications. Both cases we're seeking injunction to stop the copying.

>>FEMALE SPEAKER

John mentioned explosion in patents on the market. Have others experienced that kind of explosion or any other term you might want to use to characterize it.

You -- most of you mentioned it. Can you describe it -- spin that out for us and explain what you mean by that and what the consequences are. Russ.

>>RUSS SLIVER

The easiest way to address that would be at least weekly I receive solicitation offers for patent portfolios now on the market. So I do believe and having talked to others in the industry, they also are seeing a large number of patents that are coming up for sale or auction or through third party agents. I agree with John that I think is -- as the economy continues to drive businesses to look for new ways to raise revenue, or as businesses go bankrupt and their assets are divested, that patent and IP portfolios will continue to become available.

>>FEMALE SPEAKER

You mentioned portfolios. Are these patents being sold as portfolios or sole individually?

>>RUSS SLIVER

I usually don't get notification of an individual patent. They're grouped. Whether they're from an entire company or subset, it varies.

>>FEMALE SPEAKER

Is it necessary -- are they being offered to buy the whole portfolio at once or is it possible to buy individual patents within the group you're seeing?

>>RUSS SLIVER

Probably can't answer that because I never responded back -- we don't -- unfortunately right now we don't have any cash to take advantage of buying assets on that market right now even if they were ones we were interested in.

>>FEMALE SPEAKER

John --

>>JOHN THORNE

I can quantify a little bit. I'm somewhat restrained in telling you about my source. So forgive me for that. But I can give you the numbers. In 2007 we saw almost exactly 10,000 patents for sale, sometimes single patents, sometimes collections in a small portfolio. 10,000 patents for sale in areas potentially relevant to Verizon's business. In 2008 we saw again a bit more. The 2008 window was more cloudy. If you took the fourth quarter and extrapolated to the whole year you're closer to 18,000 patents for sale potentially relevant to a company like Verizon. It may have been a little smaller but someplace between 10 and 20,000 that's what we saw. I'm sure we didn't see everything that was for sale in that period but that came from rough number 60 patent brokers we're offering them. And a relatively new phenomenon of law firms sell patents and a law firm will sometimes do a little additional work in selling patents, they'll give you claim charts. Here is a patent for sale, a claim chart that shows how you might be interested. Sometimes companies sell direct and sometimes individuals sell direct but the bulk of activity comes through brokers. Sound like you're going to do some that the next hearing you have but in rough numbers it's 10 to 20,000 patents. I think that's going to increase as companies frantically sell everything they can to raise cash.

>>FEMALE SPEAKER

How is that different than your experiences five years ago in terms of both the number of patents for sale and the use of brokers?

>>JOHN THORNE

I wasn't -- I don't think it was anything like that in 2003.

>>FEMALE SPEAKER

Noreen.

>>NOREEN KRALL

So there is a tremendous amount of assets for sale -- amount of assets for sale on the secondary market. Involving in watching this over the last four years and I would say our resources and time spent looking at these portfolios that come across is probably doubled, it's taking twice as long and twice as many patents are coming across. It's a regular part of the patent portfolio manager function in my organization to actually look at these portfolios as they come across. And interestingly enough some are truly pure patent sales again in the technology industry from folks that have large portfolios. Some are small inventors, some are individual patent, some large portfolios. Some are truly couched as an offer for sale. Others are vague -- they barely disguised assertions. If you don't buy the patents, somebody else will who will sue you. Or they will shop the patents to some other companies with claim charts against your products. I'll get the same set of patents to look at with claim charts against my competitor's products so seems to be a new approach to patent assertions that don't necessarily tend to get below requisite threshold to file a DJ against the patent seller. So it's certainly a challenge. Sun has been involved since the earliest inception of allied security trust, a consortium of a couple of companies that have gotten together to try to use collective resources to purchase patents and mitigate risk for those patents falling into the hands of entities that would be more litigious with those patents. That's been successful as a mechanism for addressing this volume that we're seeing in the market.

>>FEMALE SPEAKER

Matt and anyone else who would like to comment on how this has change over the past few years. Noreen, do you have a sense how this has grown? Problem with the secondary markets?

>>NOREEN KRALL

I don't have the exact numbers but the volume is tremendous.

>>MATTHEW SARBORARIA

In the software space we have seen a tremendous increase in offers to sell patents in contrast to Russ's comments most of the offers we see are for individual patents as opposed to large portfolios and we have seen this increase sort of track the development or the increase in number of different entities in the market that were addressed at some length in the Commission's December hearings. Increase in brokers, agents, auctions, what I think of as the push end of the market, entities or individuals coming to us with patents that they believe would be of interest to us. And in some ways this is a positive development in the sense some of these organizes do fairly good diligence at the front end and can bring some high-quality assets to the table. I remember when I started oracle some years ago we received a lot of letters from individual inventors, patent owners. Some offering patents that had no relationship whatsoever to our technology or our business offering hardware patents when we're purely a software company, for example. We have seen that, we have seen a decrease in those types of offers. And increase in what I would characterize as more sophisticated offers.

>>FEMALE SPEAKER

Alex.

>>ALEXANDER ROGERS

Our experience is similar. We have seen the market for patents being sold increase. We certainly have had nor visibility into it over the last few years. Like Noreen we had to organize internally in order to handle getting some sort of structure to being able to understand how the market is working and what's out there essentially. And being able to evaluate what's presented to us. I don't have the numbers John has. I can say anecdotally it is interesting that a number of portfolios that are being presented to us recently are -- include patents sold previously. We're looking at patents that may have been bought and sold back in the late '90s presented yet again. So I really don't have the numbers to tell you how much it has increased. There certainly was a market previously because we see patents already being sold.

>>FEMALE SPEAKER

Sara.

>>SARAH HARRIS

I'll echo the same. We have seen a significant increase over the past 12 months in being approached by brokers. And we also like Russ we're not in the business of buying patents. We do look at everything but it's actually becoming burden some because we see so many. We also talk to the brokers. Anecdotal intelligence we're receiving now is the actual purchasing market is really drying up. We have heard from two different ones. Portfolio today would probably draw the sales price about half of what it would have been last year. And people just aren't buying. The patent aggregators aren't buying as many, they're being much more selective. So it's kind of a capitalistic market in the patent space.

>>FEMALE SPEAKER

John.

>>JOHN THORNE

I want to follow up on something Alex said. A Qualcomm example. It's very hard with the volume of patents to make a realistic decision, is this something that you need or not. Because the -- even a quick analysis on a single patent does a complex business potentially infringe this and is the patent valid, was it properly enforced. You'll run into small numbers of thousands of dollars per patent. If you look at 10,000 over a year it would be a crazy thing to a good job evaluating things. Here is my Qualcomm story. We were involved as a worried bystander. There was a patent portfolio for sale six years ago presented to Qualcomm, I understand. It was a small number, 150 patents for sale. Qualcomm gave it a pass. Broadcom bought it, went to the IPC that hasn't learned the wisdom of FTC's -- Broadcom said one of the patents they purchased was several pa tens were infringed by Qualcomm's chips. -- infringed by the chips. This would have been the now current generation of wireless phones. Verizon, AT&T, all the other suppliers of wireless service would have had no devices to give their customers had this succeeded but it was an instance where a very intelligent IP group that Alex runs was given the chance to buy the patents and made a reasonable decision these probably aren't important and the ITC later found otherwise. And was ready to issue remedies which would have devastated a lot of commerce.

>>FEMALE SPEAKER

Alex.

>>ALEXANDER ROGERS

John's correct. That portfolio actually was presented to us. And we did pass on it. And we did think that the patents weren't strong enough to purchase or be interested in. We obviously have views on the merits of that still. But that's correct. As in part because of that lesson we have actually become determined to be more educated on this market that's out there. And we are becoming more educated on this market that's out there.

>>FEMALE SPEAKER

What do you need to do to become more educated in what kind of resources is it take something and then also how do you make a decision whether to buy and what are some of the motivations in buying patents if you buy them in this kind of market? Are they defensive motivations only or can they be offensive motivations or are they just to take the patent off the Street so it doesn't fall into other hands? John.

>>JOHN THORNE

In Verizon case we have enough patents for offense. We only buy things we think might be asserted against us. The analysis that's necessary when you look at a patent is anybody can do it. If somebody gave 12 patents we have a talented group to look at it and determine we do or do not worry about these, there's no risk of infringement or the patent should be found invalid given the way the law works on that but the expense of doing that is pretty large. I'm told by my outside suppliers of this that no one will do a prior search on a patent for less than a thousand dollars. Worldwide bare bones patent search is 6 to \$7,000. A more realistic extensive search which looks not only at other patents but publications in the neighborhood of \$15,000. If you do more than that in real litigation but if you tried to do a serious look at the validity of every patent that came in and looking at 10 to 20,000 patents relevant to your business a year, that's more than my budget.

>>FEMALE SPEAKER

Russ.

>>RUSS SLIVER

When I commented earlier that we do have the money to buy patent portfolios, I mean, that's partially true. Doesn't mean we don't take a look at what is offered to us. But like most high technology areas you have here, the number of technologies and patents that would affect our products are in the house. Everything from material science, chemistry, electrical engineering, process operations, all of those. So we have a large patent portfolio to provide us the defensive positions that we need. What we would be looking for when we look at the portfolios are to see if there are assets in there that would be critical to what we're doing and would fall into the wrong hands to get it off the Street. To be honest I have not seen that in the portfolios being offered to me that we felt anything has risen to that level. So we haven't engaged in that discussion with the brokers that you're inquiring about earlier can you split it up or buy one or two patents out of it.

>>FEMALE SPEAKER

Noreen. Krall criminal you asked a couple of questions how to get educated and the purpose for purchasing. On the getting educated side if you do feel there's a market throughout that you're missing that you want to tap into, I would recommend connecting with some kind of sellers broker and giving general parameters if the technology is in my space, make sure it pass ace cross my desk. Be careful if you open that door because the flood of proposals could be coming in, as we certainly have found, it becomes kind of a self-generating part

of your business. To the extent we look at patents it is from a defensive purpose. We don't look at in validity F there's a reasonable claim that can be made from an infringement standpoint usually look and say okay is this reasonably priced now and should I just purchase it. Unless there's some very clear priority that you already know of that you know may have been generated within your company but beyond those it doesn't made sense to do searches on every patent that comes across. The challenges you face, you face when you enter this market is that there's really no visibility into what these transactions should go for. That's no real comparable market data. You can't do like a comparable analysis like when you're selling your home about what other like prices are in your neighborhood. You're relying a lot on the information of the seller or the seller's agent. Then your own risk factors weigh in, what would potential revenue tapped if this patent is asserted against me in litigation. The other challenge you face is the fact there's no consistency in the way these patents are marketed. Some are very robustly packaged where you can see very clearly where the relevance of these patents are. And others are just thrown over the wall and you kind of struggle and say what exactly do or could these apply to. Those are some of the challenges you would face getting involved in this marketplace.

>>FEMALE SPEAKER

Do you react differently depending how the offer for sale is packaged? The patent that comes with explanation why it's relevant versus the patent just thrown over the wall?

>>NOREEN KRALL

More information is always better. Certainly guides your analysis.

>>ALEXANDER ROGERS

We're all distinguishing a situation where for example you're looking at an acquisition of a start-up for example that has IP that's valuable and can really advance your development of technology in a complimentary way. We're all distinguishing those situations. But in terms of looking at patents that are now out there and portfolios out there for sale, I agree with John. You can't throw everything at every patent. It's too much, it's unreasonable. So you have to have -- you have to a process that's a funneling system where you're skimming away first look, probably most of what somebody might present to you and then you have opportunities to develop groups internal or external that have different types of expertise that are complimentary and they can help triage to the extent that you want to anything that's presented your way. I agree with Noreen. That's instance where is these are presented just are you interested in these assets and there are other instance where is there's a hint that you might want to take a hard look at these. But there is -- if you sit down and think about it, you can come up with reasonable ways to look at what's out there without spending huge amounts of money.

>>FEMALE SPEAKER

Sara.

>>SARAH HARRIS

We have a slightly difference approach. Our patent strategy is specifically tide to our corporate business strategy. So to the extent that we get offers we will only entertain things that are directly tide to the business that we're currently in. And we rarely get any on point so we pass up just most of everything because they're not relevant

>>FEMALE SPEAKER

Alex distinguished the situation in which you might be acquiring a start-up or acquiring technology how often does that happen? Is that an important part of your business, an important part of bringing innovation into the company? Alex?

>>ALEXANDER ROGERS

Absolutely the last four years Qualcomm has acquired over a dozen companies. We other looking for companies that are complimentary to our research and development and our product offerings. And there are companies out there that are very, very forward-looking. They maybe very, very small but very forward-looking. May have very good technology and patent positions on that technology. They're essentially looking for somebody to help incubate that. We're always looking for somebody that can be complimentary.

>>FEMALE SPEAKER

How important is the startups patent position when you're making that decision whether to acquire?

>>ALEXANDER ROGERS

It's absolutely critical. I have heard it from other panels and other folks from start up companies who come to the FTC to talk about it. But I guess I'm repeating myself. I'll do it one more time. I don't know how to better say it but it is absolutely critical.

>>FEMALE SPEAKER

Matt.

>>MATTHEW SARBORARIA

Just echo what Alex just said. We have a very active acquisition program. There's a lot of consolidation going on now in the software space. So we look very carefully at technology startup companies, there's a lot of good technology out there that's complimentary to our existing product offering. And as part of that due diligence looking at those companies we scrutinize their patents, their pending applications very carefully. It's critical to the transaction. Of course we also look at potential acquisition from a defensive perspective. What type of liabilities are we potentially bringing on in the IP area in terms of their own product offerings or their own customer base. But their patent -- their patent position is very important.

>>FEMALE SPEAKER

Russ.

>>RUSS SLIVER

I'll give a slightly different perspective. Micron licenses in -- I like to think of it more as technology or looking at a startup company or individual or university something that will provide a competitive advantage to micron, whether that's faster time to market, whether it's complimenting R&D in an area we haven't staffed up in yet. The Intellectual Property components of that including patents are important but it's the technology and the advancement in our competitive position that is driving our decision to look at this startup or look at this IP -- I mean look at the startup or look at the technology, the IP of course is important from the standpoint that IP is important to micron and we're going to protect what we have innovated so we would like to see the startup or the technology that we're bringing in have protected their IP to give us that advantage. That's not necessarily the driver. I would like to distinguish between bringing technology in that advance it is company versus just buying a portfolio. Without that backup behind the patents, the patents wouldn't mean that much to us.

>>FEMALE SPEAKER

Alex, when you acquire technology in that way, are you acquiring more -- acquiring technology in order to bring it into Qualcomm, are you acquiring more than just patents or are you bringing in the inventors and any know how, how does that play out?

>>ALEXANDER ROGERS

Most involve bringing in engineering talent that we think is very good talent. Product development activities that we think -- product development activities to incubate and bring to market. The IP protection is critical to protecting that development. So let me just throw out one example. We acquired a company called snap track some time ago that had very good, very advanced GPS technology, assisted GPS technology for cellular uses. We brought that company in, terrific engineering tall leapt, great patent position. Basically every chip ha sole in the U.S. has their GPS tracking technology in it.

>>FEMALE SPEAKER

Noreen. Krall criminal we're also active in the acquisition process as well. And the primary drivers are from either filling a business need or adding complimentary technology to our products. Then secondarily look at IP and patent position specifically. And that vary business startup. Some are very good, very diligent early on in filing their patents. Others get to the point in their development when they have something really ready to be offered. And might only have a professional patent application where they put everything in that bucket. If you are to acquire that company you have to move quickly to actually perfect all those IP rights. So there's different places along the scale where the patents play in when you're acquiring a company through the acquisition process.

>>FEMALE SPEAKER

Why is it important to quickly perfect those IP rights; so that sun won't be stopped by someone else from practicing that technology or to what extent is there a desire to prevent competitors from practicing the technology?

>>NOREEN KRALL

Back to our philosophy about patent bus there's an investment of intellectual resources creating something that's valuable that we want to acquire, the technology being the larger bundle with the people behind it and whatever it is, whether it's specs or code or hardware design. And then capturing that and perfecting it in patent rights so it's very clear that you only those patent rights but then again getting back to our philosophy we often make that available through our different either open sourcing technology or spark technology, things like that. So it's not necessarily to just block out competitors.

>>FEMALE SPEAKER

Okay. John.

>>JOHN THORNE

I was going the make the same point. I think most of your panelists have their mergers reviewed over at the Justice Department rather than here. So I think I'm safe talking about this. I know increasingly the Department of Justice has given scrutiny to the patent position of acquired firms to see if under independent income you don't necessarily get a monopoly in a relative product market in a patent but one way of doing the process if you're buying a competitor that has a monopoly on the other way, you have converged the two ways

to a single firm. The Justice Department is spending time looking at the mergers of the panelists here to see if the combination of patents creates a competition problem that would potentially be a problem for the merger.

>>FEMALE SPEAKER

Transparency. Where we were going. Noreen raised transparency. Noreen mentioned in, again the market for secondary patents in moving away now from this technology transfer. We have heard the comment that this is not a transparent market, you don't know what other people are paying and that makes it difficult to price and value the patents being offered. Do others have comments on that problem? Do you experience that as an issue? And do you have any suggestions on what might be done about it? Would you like a more transparent market in which for instance the price of the license had to be reported? No problem with transparency?

>>JOHN THORNE

I read the pre-print of an article and the idea of transparency. There's a surface appeal to the idea that if like you have with when you sell a house, the price the house sold for that's published is interesting but there's many other factors that go into a license to make it hard to compare to one another. When I was a baby lawyer I represented the Chicago Board of trade in a futures contract. Wheat was a well known thing, it was a -- only thing that changed with was the price. You knew everything about the transaction. I have never seen two licenses the same. And between different companies, one is going to do something very different with the license, its business has some plan, the details about does the license include newly acquired entity, does it go with things you divest, there's so many aspects to a license that will be different from company to company that it's like if you're buying or selling a house and the number of children you had, whether you're going to cook in the house, if you want pets, are you going to mow your grass or not. There's so many different things about it that make it hard to compare one license to another. So the price would not give you that much information.

>>FEMALE SPEAKER

Sara.

>>SARAH HARRIS

I would like to echo that as well. Some issues we have seen with respect to transparency, it would be better in settlement negotiations, if somebody has approached you with some type of claim, it's our position we want to know what their licensing practice has been with respect to that patent. And pre-litigation, almost impossible to get so it kind of -- it's kind of that warts any ability to settle before litigation. In litigation you can typically get it but it takes a very long time and there's a lot of expense involved getting to that point. Theoretically it would be nice but then if you overlay that with what John was saying, every deal is different. I assume most have dealt with clauses in their licenses. If you have to dispute one of those you realize no deal is ever the same. There's always approximate out on -- an out on that provision. I don't know how we can get there.

>>FEMALE SPEAKER

Alex.

>>ALEXANDER ROGERS

I think there's a question that basically is transparency as to exactly what. Because in a way with these patents and portfolios offered, there's a tremendous amount of transparency. As a matter of fact there's information overload. You can

gather tons of information about patents out there potentially for sale. You have ocean tunnel patent auctions, that's pretty darn transparent. But there are things that are not transparent. Rightfully so. All of these competing entities have an interest in confidentiality in their commercial agreements. Whether that deals with patents or some other form of commercial agreement, there is a significant interest in confidentiality that has to be respected even in this area. In some respects there's tremendous transparency. In other respects maybe not so but I don't know that's necessarily a problem.

>>FEMALE SPEAKER

When you see a patent on the secondary market, how easy is it to tell or are you ever not sure who actually owns that patent? Who is the true party and interest if the patent -- or is there a situation in which the patent maybe held by a shell company? Russ?

>>RUSS SLIVER

I think the answer is in the question, yes, it is difficult to as certain at times. I'm not so sure though it's the patents being offered on a secondary market necessarily. It's the patents that aren't currently being offered or asserted but are being held back or held by non-practicing entity. Some -- even some practicing entities don't necessarily want the extent of their patent portfolio to be known so they may not file assignments for patents. So it happens for different reasons but I have seen some evidence that different shell corporations are set up and portions of portfolios are split between them. If you license this portfolio from this company you don't know you're also exposed to a complimentary portion of that portfolio held by somebody else. Or you can't tell who is holding it. So I think there is some intentional hiding of who owns -- who is the true party of interest.

>>FEMALE SPEAKER

Sara.

>>SARAH HARRIS

The other aspect that's problematic, as a developing company our company doing development you're trying to be vigilant about the patent landscape so you want to look at it as particular industry or possible competitors in that industry. When people around actually filing in their names it's very difficult to do. And I don't really quite understand -- I have heard different reasons for doing it but they don't seem to further transparency.

>>MALE SPEAKER

That brings up a broader question. We have been looking at the question of how difficult it can be just to evaluate a group of patents that are offered to you for a sale. But if one takes a step back and asks how about the rest of the patents that might have been issued that might be relevant to your businesses and how does the notice function of the patent system enable you get a handle on what your potential risks are when you -- in terms of introducing products. How do you address those risks in terms of clearing rights or the like?

>>NOREEN KRALL

I'll be happy to answer to get us started on this topic. In tech industry doing clearance search is almost cost prohibitive and very often likely to lead to unpredictable results, false positives and false negatives where you think you might have patent -- there might be some patents that would block a technological direction you want to go in. Might ultimately be blocking patents and your searches might not ever bring to light patents that truly either are blocking or could be asserted against productions you're developing down that

path. And a lot of uncertainty comes quite frankly from either poorly prosecuted patents or patents that have ambiguous terms, patent that don't have defined claims, patents pending in the office that haven't issued that you don't know about when you embark on a certain technological direction. Coupled with that, the concern that you might have of having a claim of willful infringe brought against you ultimately leads to a conclusion that it's better not to look or search to do clearance activities at all and go down a particular technology direction. Then address anything that comes up at a later date.

>>MALE SPEAKER

The difficulty is not something that can be fixed with tweaks to the way patents are written or published. I tried at one point to count how many issued and still in effect patents might be relevant to a company like Verizon and the number is around 700,000. Only 10 to 20,000 trading every year but the number is very, very large. Be very difficult to do that kind of analysis for the entirety of what's out there.

>>ALEXANDER ROGERS

Doing product clearance searches in looking at patents in the area where you're attempting to launch a new product is difficult. And it does require concentrated resources and it's never a simple process. , at least in my experience. Never been a simple process but we ought to step back and look at the big picture and point out why that's a really good problem to have. It's a really good problem to have because we have an incredibly innovative society. We have a patent system that has resulted in incredible innovation in the United States. That problem resides on or simply sits on tremendous inventiveness in this society. So while we certainly agree that the patent office can be improved and we can hopefully have more quality in terms of patenting that's out there, the problem we all have in building complex products that call upon large numbers of patents is in a fundamental way a good problem to have.

>>JOHN THORNE

Alex is one of the -- I have tremendous respect but I remember the patent he is gave a pass on that almost stopped all the chips that his company made coming into America because they were found to be infringing patents that Alex had a chance to look at. In the first panel there was some differences between life science patents and high-tech or IT patents described. I do think there's a fundamental property law difference between the patents, typically your miracle drug is a molecule and one patent might be enough to protect it, often there's more. In the high-tech business a simple product can have a thousand or more patents. One of Vonage defenses that Verizon brought their damage expert said Verizon has only seven patents asserted against us. There's a thousand patents in our product. There may have been a thousand patents covering their product. The number of intersecting property rights on top of a simple high-tech product is -- it's too big.

>>MALE SPEAKER

We wanted to focus on the source of the problem and let out several possibilities.

>>ALEXANDER ROGERS

Is clarity patent drafting something that is a difficulty but not really the main source, are the sheer numbers what really drive the problem?

>>JOHN THORNE

If I was ranking things sheer numbers is number one. What happens if a patent is enforced? Suppose you make a mistake. A good lawyer making a mistake

whether you infringe and patent is valid and now you're in the remedy phase. The uncertainty about the remedies applied. Verizon that has a lot of capital in the ground, worries about are we going to be held by having committed so much investment, being a big business means you have a big risk in front of a jury. If you're God help you at the ITC where injunctions can be still issued. The uncertainty of the remedy phase is number 2. I think the notice function the patents serve is far do you know the list after that.

>>MALE SPEAKER

Russ.

>>RUSS SLIVER

On topic with that, I would agree with Noreen and John on the sheer quantity is an issue, especially in a semiconductor industry where we have literally thousands of potential patents to read on. But I would also go with abuse of the system. Abuse on the continuation system, especially in a product cycle that is less than is even 18 to 24 months maybe or three years of development is less dependency case might issue that but waiting until an industry is fairly mature and has sunk billions of dollars in capital and then what I would consider morphing the specification to provide claims that read on the later developed product, to me add as great deal of uncertainty. If I spent all my time analyzing the claims that are out there that I can find, that aren't pending in patent office or have been published, I can't tell on a hundred page specification which one paragraph the owner might grab some support or spore for a claim that I never foresaw coming out of that patent.

>>MALE SPEAKER

Noreen.

>>NOREEN KRALL

I would add, I agree with the problem once the patent is issued and you're facing litigation. But some of these problems I think should be at least addressed to some extent upstream in the patent office, should be a greater degree of emphasis on 112 type rejections, par 1 and 2, the patent examiners don't necessarily have the tools available to us that a lot of the outside analytical tools that we have to use OCR searching capabilities to allow you to find claim terms undefined in the specification or not depicted in the drawing. So if there was some improvements I think in the patent examination process in some of these areas to tighten up and clearly articulate what the patent depends to be their own invention that might help for the future. That's areas patents are allowed but there's a dearth of -- out there following some of the practice taking place in Europe where industry is able to provide or populate databases with non-patent prior art to help in the examination process and perhaps result in better quality patents is something that should be explored.

>>MALE SPEAKER

Matt.

>>MATTHEW SARBORARIA

I agree with John, the number one problem is sheer numbers for us in the software industry. But uncertainty regarding claim scope is also a big problem. I think it's particularly so in the software space where it is often unclear whether a given claim reads on software at all because of the unique ways that software inventions can be claimed including many hardware elements. So even with a very diligent thorough and costly search or clearance study, we run into the situation where patents are asserted against us, patents that never came up through that very diligent process.

>>SARAH HARRIS

Our industry has a lightly different issue. Our number one issue would not be quantity but it is definitely quality. Because you'll have the garage inventor going wow, I think I can -- maybe I can come up with this new was bang thing on the Internet where no R&D is required and they draft a patent. So we have a ton of pa tens that are asserted against us that did not result from any investment whatsoever except for the actual drafting of the patent. And many times they're invalid because they dip go through a proper examination process. Once we get into the litigation the second one is abuse because there's these people that should have never granted the patents. Then they come -- pa tens and then they come after us and use uncertainty around remedies and try to go after our revenue stream when the patent is really only directed at one small aspect of one small product. The third is uncertainty in claim scope. In our litigations we're not getting any determinations earlier on in the litigation. The Markman or motions are her right before trial so we have to go through the whole thing to get there. That's where our problems primarily have been.

>>MALE SPEAKER

On the quantity issue, the quantity issue stems from an underlying phenomenon that is a very good thing. That is the degree to which we encourage innovation in this country. It's enormously successful for a very, very long time. So I'm not sure how you completely solve the quantity issue. But I agree with everyone on the panel here focusing resources on the patent trademark office to give tools an people they need to examine applications in way they really ought to be examined particularly given that you probably have growing numbers of applications being filed. Certainly we do. Is probably I think everybody agrees that ought to be done.

>>MALE SPEAKER

In the shameless plug category, we're going to have a panel tomorrow afternoon that's going to -- and all star group addressing those topics. Sounds to me like necessarily when you're making a new product introduction you have to make a risk analysis based on the circumstances. To the extent you can talk about it, how does the current patent system affect that, John mentioned remedies as one aspect of how the system ultimately affects it but if you could speak to the risks you faced, whether you choose to not to go forward at times and how hard it is to go forward in the face of some of these risks.

>>FEMALE SPEAKER

Please feel free to bring in the damages issue at this point if you have a thought. How that affects your thinking that potential liability.

>>SARAH HARRIS

Whenever we introduce a new product or -- its conception, we do the analysis to see whether patents factor into this. What Noreen said earlier, if it's a pretty quickly evolving technology, a search isn't going to do us any good anyway. Right now like all the patents that are currently being asserted against us in litigation, we would have never turned up in a search. It would have never dawned on us that this -- that the -- anybody had tried to stretch the claim scope this far.

>>FEMALE SPEAKER

Is it because patents hadn't issued or because this problem was stretching --

>>SARAH HARRIS

Both. And it also goes to the issue that they're unpublished applications so they keep them in the chain and you don't know. So the pre-product searching is not something we typically do. We might if it's a new space, look at the patent landscape but we typically don't do it. Is it a factor in the innovation consideration? Yes. Do we place a lot of relevance on it? No, because of the uncertainty. We can't quantify the risk. So we just say is it a good business decision to get in this market, is it going to give a competitive advantage and go forward?

>>FEMALE SPEAKER

Do others feel you can't quantify the risk there's too much uncertainty?

>>MALE SPEAKER

Yes.

>>ALEXANDER ROGERS

It depends. There's not a -- depends. There's not a categorical answer. It depends on the size of the market, size of the product, number of patents you're looking at. I have the unfortunate position of being a single lead at Qualcomm that is an English major. And so through years of you think graduate and graduate school studying poetry and other things that my engineering colleagues couldn't care less about, I have learned that the English language is very flexible. So even in the patent context while you have rules about defining claim terms that hopefully help you define scope, if you were to perfect those rules to the extent humanly possible you're still dealing with the English language. You're always going to have differences of opinion. In our analysis we come to the best understanding that we can and we make decisions based on it. Now, it depends on a lot of different things in terms of how risky -- terms of how difficult it is or isn't. One thing I have found sometimes trial lawyers are very good at stretching claims. And so there are a lot of judges who would be happy to have more education and more understanding and learn more about patent law. That could help at the end of the process.

>>MALE SPEAKER

Russ.

>>RUSS SLIVER

The uncertainty in uncertain applications, pending applications, claims scope, in damages, the sheer number of possible areas that technology could be relevant to a new product have led us from experience have taught us from experience that we can't lead our executives with any level of certainty ourselves so expending a lot of energy and resources in the company to attempt to do this has been futile. So we just don't spend that much time. What's driving our investment are competition and consumers.

>>MALE SPEAKER

John.

>>JOHN THORNE

Another number. In 2008 with a fairly dim window for most of it we saw 884 semiconductor patents of the type that Broadcom used to challenge Qualcomm's chips coming in wireless phones into the US. That's an awful lot of patents to evaluate. We don't have a good window into the way the semiconductors work. We have got high level requirements for things but how patents read are things Alec's businesses know better than we. There are a lot of patents for sale by brokers during that period. Unlike Sara, we're not seeing garage inventors that are badly prosecuted. We're seeing patents originally prosecuted by the good

R&D labs of the fortune 50 companies now on the secondary market for sale. That's the main source of what we see. It is the uncertainty a deterrent to innovation? In the case of Verizon or similar companies it's a great source of worry. We spent a lot of money trying to deal with it. I see the purpose of patents being disserved by the current system.

>>MALE SPEAKER

Earlier in this panel there have been discussion of sort of litigation you face and several indicated there's quite a few NPE lawsuits you're facing. In panels we had in February there was a discussion by some of the smaller players that say they face a problem of bringing in new technology to a big company and then having that company decide they don't really need to license it, they already have figured it out and they might knead need to have a strong patent protection in order to be able to sue to pre-rent that large company from practicing -- what they tried to license to them. If you can disclose, of litigations how many are alleging that this is the technology that was brought to you with an idea of jointly developing it as opposed to technology that you saw the first time when you got a demand letter or something akin to this?

>>SARAH HARRIS

None of ours are related to that.

>>NOREEN KRALL

I would agree. The majority of our IP litigation is really NPE lawsuits against sun, pa tens we never saw before until we were served with the lawsuit. That is unfortunate because we do respect IP, we respect the IP of third parties. If somebody were to present something to us that was interesting that we would engage in productive discussion and realistic discussion, there might be a different result. But unfortunately the separation as it is now is simply to sue first, you then are faced with spending significant amounts of legal resources getting to the point where you have enough information to drive realistic settlement discussions. That's unfortunate.

>>FEMALE SPEAKER

Has med immune increased the sue first phenomenon versus negotiate first in terms of patent writing about a declaratory judgment action being brought and so just going right to court -- I had heard some people -- I think it was microelectronics. Based on med immune. After that it was rare we saw demand in that one year alone I think we had eight NPE lawsuits filed against us without any fore notice.

>>FEMALE SPEAKER

What jurisdiction were they filed in?

>>FEMALE SPEAKER

Texas.

>>MALE SPEAKER

We have 24 cases pending almost all in east Texas. One we got notice of the patent before the lawsuit was filed because they filed a parallel lawsuit against other companies, we saw the other lawsuits so we filed a declaratory judgment action in New York anticipating they would sue us in Texas and settled that case but otherwise they're all in east Texas.

>>MATTHEW SARBORARIA

The vast majority of cases the notice of patent was the filing to have lawsuit. And we too have seen a decrease in numbers of assertion letters post med immune.

We have seen an increase as we talked this morning in offers to sell patents unambiguously offers to sell. We have seen a decrease in outright demand letters as well as the sort of vague carefully worded letters fairly interpreted as demand letters based on declaratory judgment case law.

>>FEMALE SPEAKER

I have been at AOL a little over a year, we had eight lawsuits all by non-practicing entities and no notice ahead of time. In the last three months we actually did receive -- we had more than -- I would say a few requests to license. I hadn't seen those at any company I worked for before but people -- it's these licensing entities representing larger companies. And they said we have sometimes large portfolios, sometimes a number of patents in the specific area. I wouldn't have expected that with med immune.

>>FEMALE SPEAKER

How have the number of lawsuits you have been defending grown over the past five or seven years? Anybody have a sense of that Sara.

>>SARAH HARRIS

We have seen a 30% increase for the past two years year-over-year.

>>MATTHEW SARBORARIA

From zero to 20 in the past nine years.

>>FEMALE SPEAKER

Alex.

>>ALEXANDER ROGERS

We have had a lot of litigation the last three or four years but it's been --

>>FEMALE SPEAKER

Besides the Broadcom litigation.

>>MATTHEW SARBORARIA

Beside the Broadcom litigation. We're a co-defendant in the case with Verizon and we have other situations involving NPEs. But for the most part I would say that most of our litigation time and expense has been I'm lacking the word traditional in the sense that it is involving other product companies.

>>JOHN THORNE

These are approximate numbers of 2004 I think we had one NPE case or troll case against us, 2005, three, 2006, three, 2007, 2008, one a month. Across a large number of companies it was in the handful of dozen, 2004 growing into the hundreds by 2007, 2008, there's been a very large increase.

>>FEMALE SPEAKER

Noreen, I would be interested in why.

>>NOREEN KRALL

I would share similar statistics up to about 2004. We typically ran one to two patent cases on our docket over the course of series of years. It was around 2006, the numbers just jumped up into the double digits and stayed around the 10, 12 active cases since then.

>>FEMALE SPEAKER

What happened in 2004. What are the reasons? What do you think is driving this behavior? Why is this a good business model for the people bringing these lawsuits?

>>FEMALE SPEAKER

Money.

>>MALE SPEAKER

It doesn't require as much capital investment. It doesn't require even on the litigation side nearly as much to bring the suit. The uncertainty of how the patent is going to be interpreted, the uncertainty of how the jury is going to view damages, certainly it has, there have been a few things, changed whether it be injunctions or KSR that certainly might effect that business model. But I guess to your main question, it's a business model that tends to pay off quite well. In certain industries can be asserted against an awful lot of defendants so collecting just enough from each one cumulatively pays off quite well for the investment. Would anyone like to comment on the -- how the developments like KSR and med immune and willfulness of affected this evaluation an eBay of course?

>>FEMALE SPEAKER

And other theories on why this is happening and the effect of these developments on what's happening.

>>MALE SPEAKER

Clearly these cases have pushed the balance in favor of the eventual defendant and against the interests of the patent so eBay has done that, sea gate has done it to some extent with objective standard for willfulness. And so there has been a shift. There has been I think John said it earlier, that there is reform occurring, in the courts. I think that's definitely true. There is reform occurring in the courts. The discussion in eBay points to the reform being directed towards that non-practicing entity. So there has been this shift. It's a relatively recent shift. I think there's a lot to be done to see how it plays out and how the courts continue to apply eBay and sea gate and work some of these issues out. And the shift could continue. Again, against patentees in the court system without getting to legislative issues.

>>MALE SPEAKER

In light of the time if people would add in addition to this particular topic of the impact of these cases what additional things they think might need to be done given all that we talked about today. John.

>>JOHN THORNE

It's hard to disagree with Alex on anything but eBay was decided in 2006. We have seen much more troll patent cases in 2007 and 2008 than ever before. So eBay had no effect on control troll cases being filed. There's terrific uncertainty how damages works thanks to my colleague Gail, we're going to mitt submit a paper geese through suggestions for the Commission on damages, later this week. There is reform going on in the courts. There's more that needs to be done. I appreciate the FTC's getting interested in this. Again.

>>FEMALE SPEAKER

One last thing here today having to do with standard setting practices. The standard setting practice is really a critical part of the technology development process, it really is when companies get together under a set of standards setting organizes bylaws and develop an agreement on the common platform and parameters that technology is developed on so interoperable and

frankly at times interchangeable products can be developed. one of the problems we're seeing partially driven by the secondary market is the fact that participants in the standard setting process have made commitments or assurances to these organizations in the development of these standards that might not necessarily be honored by successors at interest when those patents are subsequently sold. So we're seeing that as a problem. Once you've got broad industry adoption of a standard, lock in and investment, irreversible investments and developing products on that standard when somebody comes out and then asserts patents against products developed to that standard it causes quite a bit of disruption in the technology market. And ultimately impacts the consumer. The other problem that we see in standard setting process is the lack of disclosure, if you would, of patent rights while the standard itself is being developed. Again, greater transparency in that process. Ex-anti type of policies being driven by standard setting organizations I think would be a benefit for the tech industry in general.

>>FEMALE SPEAKER

Any other comments on that?

>>MALE SPEAKER

Can I finish in response to Bill's one last comment. So as I said, I do think that reform is occurring in the courts and while that plays out it often take as long time for things to play out in the courts. One thing I wouldn't want the see happen is the focus on NPEs cause circumstance where we're undermining what is such incredibly valuable patent system for our country and for innovation. Qualcomm is a huge product company. But we think of ourselves as an R&D and tech transfer company. Our ability to do what we do in R&D is dependent on a strong patent system and our ability to license and fund the R&D. So we certainly would hate to see that undermined.

>>MALE SPEAKER

Any other closing thoughts of any kind? If not, thanks very much. We end on time.

[Applause]

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