S. HRG. 110–149

PATENT REFORM: THE FUTURE OF AMERICAN INNOVATION

HEARING

BEFORE THE

COMMITTEE ON THE JUDICIARY
UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

JUNE 6, 2007

Serial No. J–110–41

Printed for the use of the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE
37–760 PDF WASHINGTON : 2007

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON THE JUDICIARY

PATRICK J. LEAHY, Vermont, *Chairman*

EDWARD M. KENNEDY, Massachusetts	ARLEN SPECTER, Pennsylvania
JOSEPH R. BIDEN, JR., Delaware	ORRIN G. HATCH, Utah
HERB KOHL, Wisconsin	CHARLES E. GRASSLEY, Iowa
DIANNE FEINSTEIN, California	JON KYL, Arizona
RUSSELL D. FEINGOLD, Wisconsin	JEFF SESSIONS, Alabama
CHARLES E. SCHUMER, New York	LINDSEY O. GRAHAM, South Carolina
RICHARD J. DURBIN, Illinois	JOHN CORNYN, Texas
BENJAMIN L. CARDIN, Maryland	SAM BROWNBACK, Kansas
SHELDON WHITEHOUSE, Rhode Island	TOM COBURN, Oklahoma

BRUCE A. COHEN, *Chief Counsel and Staff Director*
MICHAEL O'NEILL, *Republican Chief Counsel and Staff Director*

CONTENTS

STATEMENTS OF COMMITTEE MEMBERS

WITNESSES

QUESTIONS AND ANSWERS

SUBMISSIONS FOR THE RECORD

PATENT REFORM: THE FUTURE OF AMERICAN INNOVATION

WEDNESDAY, JUNE 6, 2007

U.S. SENATE,
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The Committee met, Pursuant to notice, at 10:07 a.m., in room SD–226, Dirksen Senate Office Building, Hon. Patrick J. Leahy, Chairman of the Committee, presiding.

Present: Senators Leahy, Cardin, Whitehouse, Specter, Hatch, and Coburn.

OPENING STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM THE STATE OF VERMONT

Chairman LEAHY. Good morning. We have had a little bit of a delay. We have been trying to get a room, an extra room for the overflow. Senator Specter and Senator Hatch and I always thought that this was a dry subject, but apparently there are some who are interested in it, all the pro bono lawyers in here and others.

On April 18th, we took a momentous step toward ensuring America's continued leadership in innovation and production: on a bipartisan, actually a bicameral basis, we introduced the Patent Reform Act of 2007. We left partisanship and actually any sense of one body over the other at the door. I want to personally thank Senator Hatch, with whom I have worked on patent issues for many years. It has been more than a decade that we have worked together on these issues. Our last major patent bill was the American Inventors Act, which we began in 1997 and passed in 1999. The other cosponsors of the bill include Senators Cornyn, Schumer, and Whitehouse, who are also members of this Committee.

The issues we are discussing here rated a front-page story in the Wall Street Journal, which noted that the Supreme Court has "underscored the patent system's disrepair in a series of rulings rejecting the way lower courts have been interpreting existing law. The Justices have declared, in effect, that the patent system, as it has developed through the courts, has deviated from the balance Congress set a half-century ago between promoting innovation and spreading the fruits of progress." This is one of those cases where the Court is exactly right.

Over the years, our patent laws have served our inventors and our economy well, but they were crafted for a different time when smokestacks, rather than microchips, were the emblems of industry. It is far past time to update our laws for the 21st century and the future of American innovation. We have spent several years

working on just such legislation. Last year, Senator Hatch and I introduced S. 3818, which I said at the time was the first step down a road to real, constructive patent reform. Since that bill was introduced, we have spoken with all manner of interested parties across this country, and we have incorporated many of their suggestions into this year's bill, S. 1145, the Patent Reform Act of 2007.

We are working to refine and to finish this bill. We continue our collective effort to select just the right words to convey our agreed-upon meanings. Today, we focus on our overall effort but also on specific aspects of the bill on which we have asked a distinguished group of witnesses to share with us their views on the structure of post-grant review, venue, and interlocutory appeal of so-called Markman hearings.

We have come a long way in each of these areas, and we have made important modifications from last year's bill to address concerns that have been raised. We have worked on it straight through, even after the elections last year, straight through the winter and into this year. I am hoping that we will make further progress so that we are well prepared for our final drafting efforts, and then I have been told it will be put on the agenda in the Judiciary Committee for markup. As we move ever closer toward the finish line to enact legislation that will create the landscape necessary that American innovators need to flourish, we are focusing our debate on the specifics. These matters may seem dry, but they are important to getting our work done and done right in order to have meaningful reform.

So I look forward to the testimony of our witnesses today, and I appreciate the expertise they bring to bear on these important issues.

I should note that with respect to the administration witness, we did not receive the testimony from the Department until 4 o'clock yesterday, and I am not sure whether the fault lies with the Commerce Department or the White House clearance process. But, of course, that is not in compliance with our Committee rules, as both Senator Specter and I have noted. We have also been informed that Director Dudas would not give oral testimony on the topics for which he was invited, which is interesting, but would speak on a topic of his own choosing, namely, the PTO's new Patent Quality Program. We certainly agree patent quality is of singular importance, but Senator Specter and I specifically requested assistance from the witness on three other issues: post-grant review, venue, and interlocutory appeals.

Under our rules and practice, whether the administration witness is accorded the privilege of a statement is up to the Chairman in these circumstances, especially when our rules have not been followed. Since we have not had a fair opportunity to consider the administration's written testimony, I will simply make it part of the record for the hearing, and I will accord, of course, the Director an opportunity to make an opening statement if he wishes to focus his comments on the topics of this hearing, not topics he might want for the hearing, which is post-grant review, venue, and interlocutory appeals. And then we will have questions.

[The prepared statement of Senator Leahy appears as a submission for the record.]

Senator Specter?

STATEMENT OF HON. ARLEN SPECTER, A U.S. SENATOR FROM THE STATE OF PENNSYLVANIA

Senator SPECTER. Well, thank you, Mr. Chairman, and I commend you and Senator Hatch, former Chairman of this Committee, for the outstanding work you have done on this very important subject for many, many years. This is a matter of vital concern to this country and really to the world. The protection for property rights goes back to the Constitution itself, which grants exclusive rights to inventors for the fruits of their inventions, albeit it for a limited period of time, 20 years as specified in the Constitution. And the productivity and the wealth of the United States is attributed in large measure to the protection of intellectual property to encourage inventors to come forward with novel ideas and to have the fruits.

There are a great many complex issues which have arisen in this field warranting a very careful reexamination by the Congress. There are substantial differences of opinion with those who rely upon patents, very substantial differences between high-tech and the pharmacology industry, differences of opinion between universities and venture capitalists on one side and software and high-tech companies on the other side. And it is in a sense a lawyer's paradise to work through these issues, perhaps more of a paradise for those on an hourly rate than those of us who are on the Judiciary Committee. But I have an extraordinary team of lawyers behind me, and we have spent a lot of time delving into the interstices of these issues.

In a Congress confronted by many, many issues, I think no subject matter has brought more inquiries and more requests for meetings than has patent reform. And we heard about the issue of rereview by the Patent and Trademark Office, the so-called second window. We are worried about venue. We have all that business going to East Texas, and we worry about apportionment of damages, and so many, many other issues and about what the Supreme Court has done. And since it is a matter not involving a constitutional interpretation, Congress has full authority to get into the matter, and we are doing so in depth and in intensity.

We have an extraordinarily crowded calendar in the Senate, but it is my hope that—I know that Senator Leahy, the Chairman, and Senator Hatch and I and others will be giving full attention to this matter to try to get it to the floor and then to press for floor action.

I am going to have to excuse myself in a few minutes because I am managing with Senator Kennedy the immigration bill, and we have had a gauntlet laid down by the Majority Leader that if cloture is not invoked tomorrow at a 6 o'clock vote, he is going to take down the bill. And I think that would be disastrous. So we are up against a very tight time schedule. We were working late into the evening last night. We started again this morning at 8:30. We are trying to conclude many, many complex issues. And at the same time, we are meeting with many people who are in this room today on the H–1Bs and on the point system and trying to reassure peo-

ple in high-tech that, where they have a particular individual in mind, we will retain the allowance for that person to be granted status to get a green card and stay here with visas to help on productivity.

Thomas Friedman has suggested that we ought to modify the immigration laws to have a staple to a green card for every Ph.D. graduate. Certainly it would be economic administratively, just the cost of staples. And we are concerned about meeting those issues, and I see on my schedule, as Senator Leahy and Senator Hatch, a meeting with people in the industry at 11:30. I am not sure how we are going to juggle all those balls, but we will try to very carefully consider all of the many issues. High-tech practically has a Senate of its own on a day like today, with immigration and patent reform on the agenda.

So thank you very much again, Mr. Chairman, and I will do my best to return to the hearing if I can.

Chairman LEAHY. Thank you very much, and because of the extraordinary work he has done on this, I want to ask if Senator Hatch wishes to say something.

STATEMENT OF HON. ORRIN G. HATCH, A U.S. SENATOR FROM THE STATE OF UTAH

Senator HATCH. Well, thank you, Mr. Chairman. I appreciate you and your leadership in this area. I also appreciate—

Senator SPECTER. Senator Hatch, would you yield for just a minute for a unanimous consent request for things that Senator Grassley has asked be included in the record?

Chairman LEAHY. Without objection, they will be included. Thank you.

Senator HATCH. I also appreciate Senator Specter and his leadership on the Committee as well. We are led by good people, good lawyers who know what they are doing.

Let me just say that this is a very important piece of legislation. It is not everything I would like to have or that I think any of us would like to have, but it does have some very valuable changes in patent law that I think will over the long run benefit most people.

You know, the patent system is the bedrock of innovation, especially in today's global economy, and especially in this country. The sheer volume of patent applications reflects the brilliant innovative spirit, the vibrant spirit that has made America a worldwide leader in science, engineering, and technology. America's ingenuity continues to fund our economy, and we must protect new ideas and investments in innovation and creativity.

Patents encourage technological development and advancements by providing incentives to invest in and disclose new technology. More than ever it is important to ensure efficiency and increase quality in the issuance of patents.

Senator Leahy and I in particular—and I believe the distinguished Ranking Member deserves a lot of credit, too—we have worked for years trying to come up with some way of reforming and changing our patent system to get rid of some of the things that we think are abhorrent. But I realize that there are a number of industries that are very concerned about this bill, and I am con-

cerned about it as well because I would like it to be right when we get through. But industries like the medical technology industry, biotech, universities, pharma, other technology companies, a number of them are concerned about post-grant review. They are concerned about apportionment and expanding PTO rules, rulemaking authority. And there are a number of other issues that cut across and are very difficult to handle.

What we are trying to do here is move the process forward and come up with the very best patent bill we can. Everybody here should realize that it is difficult to do because even if we could get a bill through the Senate, it still has to go through the House. And there are a number of organizations who could stop this bill even though across the board it probably benefits most organizations.

So we will do what we can to keep the issue open, and I hope that you will all weigh in and let us see what we can do to get this bill even more perfect than it is and to try to keep the United States the No. 1 innovating Nation in the world. And I think it will, and I just want to personally again express my regard for Senator Leahy. He is always taking these issues seriously. He is one of the more learned people in this area. It is a pleasure to work with him, and I am looking forward, hopefully between now and markup, to bringing together some of the ideas that really deserve to be in this bill and work with Senator Leahy to see what we can do to get more across-the-board support for the bill.

There is a lot of support for it, and the changes that we are making in this bill are extremely important, as far as I am concerned. But we will certainly be available and open for good ideas and other approaches. But this is where we are starting and, frankly, we have come a long way to get here, I would say, wouldn't you, Senator Leahy? So I want to thank you again, and I look forward to hearing the testimony today.

Chairman LEAHY. Thank you.

Would you please stand and raise your right hand? Do you solemnly swear that the testimony you will give in this matter will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DUDAS. I do.

Chairman LEAHY. Thank you. Go ahead.

STATEMENT OF JON W. DUDAS, UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY, AND DIRECTOR, U.S. PATENT AND TRADEMARK OFFICE, DEPARTMENT OF COMMERCE, ALEXANDRIA, VIRGINIA

Mr. DUDAS. Thanks very much, Mr. Chairman, Senator Hatch, Senator Coburn. It is a pleasure to be here and have this opportunity to discuss the administration's thoughts and recommendations on patent enhancement issues. The bill that you have before the Committee is intended to improve our patent system by enhancing quality, reducing patent litigation costs, and further harmonizing patent laws where it is in the interest of American innovators. The administration supports these goals and commends you, Mr. Chairman, and your colleagues in the Senate and on the House side for introducing this bicameral and bipartisan bill.

I also want to note that I apologize that the testimony came in at 4 o'clock. No matter what the situation was, that responsibility rests with me. I can tell you we respect the Committee and the Committee rules. I can also tell you that the testimony very closely tracks the administration's letter, the 11-page letter that we sent on May 18th to the Committee. So, largely, the views that you will find in the written testimony will be views that have been placed before the Committee before that.

Chairman LEAHY. Thank you, and that will be part of the record, as I said. But Senator Specter and I both agreed on this when he was Chairman, and I follow the same thing as Chairman, that we have to get the testimony.

Mr. DUDAS. Absolutely.

Chairman LEAHY. I realize you have to go through a vetting in advance in the administration.

Mr. DUDAS. Right. No question.

Chairman LEAHY. But we do need it. Go ahead.

Mr. DUDAS. Right. And so the views that are in that letter are largely the written testimony, and certainly everything I wish to discuss today are views that are within the bill, within the purview of the bill. In that written testimony and in the letter that the administration sent on May 18th, you will find at the beginning of the letter a vast discussion of an issue that we think is fundamental to everything. It is not currently in the bill, but it deals with applicant quality submissions; it deals with having applicants give more. I will be happy to testify later today on that in response to questions.

You focused in your letter on three specific issues, and I will talk about those three specific issues in the written testimony, answer any questions on any areas in the bill, and other areas where the administration wants to recommend.

The area where the PTO has the most significant expertise is in the post-grant review. Post-grant review is something that was proposed at the USPTO in 2002, as far back as our Strategic Plan. Again, almost 5 years ago that was introduced. Essentially, the reason the USPTO proposed a post-grant review system, it is a system that has worked in other nations. We saw that litigation is growing in the United States, as well as the number of patents is growing, but the amount of litigation per patent is not growing. What you see is that litigation is growing because there are more patents out there. So we thought that it would make sense that you would have an alternative to a court system, that you would have the expertise of the Office in a post-grant system.

What we proposed at the United States Patent and Trademark Office to the Congress, last Congress and again this Congress, is a system that has two options: a first window where a patent can be disputed on nearly any grounds and under any circumstances with a closed window—we proposed 12 months—and also a second window where it would be a more limited window. For the life of the patent, the patent could be challenged so long as two requirements are met. According to the administration, this is what we thought would be the most manageable and the fairest under such a system.

The first requirement would be that there would be a threat of litigation, so the second window would be limited to a 6-month period after the receipt of a notice from the patent holder alleging infringement; and, second, that there would be a threshold of significant economic harm.

The idea was that this could serve as a meaningful alternative to litigation, probably less costly, certainly before experts at the Patent and Trademark Office. We also thought that it is very important if you are going to have a second window, if you are going to have a post-grant review, that you have very real estoppel, that you have a choice between litigation and post-grant review, that we should not have a situation where we set up forum shopping or giving several bites at the apple, that there should be true estoppel.

The bill that has been introduced looks very similar to the administration's position, but there is one significant difference, and that is, rather than have the threat of litigation and economic harm, it goes from a disjunctive test to—I am sorry, from a conjunctive test to a disjunctive test saying it is "or threat of economic harm."

The administration has concerns about this change for two reasons. One, administratively, that opens up a vast—a much larger number of possible cases that can come before the U.S. Patent and Trademark Office. And, quite frankly, without having the resources available now, we are not certain that we could handle the administration of that many cases. That, coupled with another provision in the bill that says the post-grant opposition would be opened up to all patents, both those patents that are in force today and those patents that are to come in the future. The administration would encourage the Committee to consider having a post-grant review system that looks prospectively only, or comes up with—we also have other opportunities and plans in place where we could limit the amount of post-grant review while the Office prepares and ramps up and prepares for post-grant opposition. So from an administrative perspective, we do have concerns that if it is opened up instantly to the more than 1.5 million patents that are in force today, that could overwhelm the Office. Obviously, both this Committee, the Congress, and the U.S. Patent and Trademark Office have an interest in making sure that any post-grant review would be a success.

We are very eager to discuss with you how we can change the post-grant provisions, speak with the Committee both here and in the House about how we think we can improve post-grant review, again, give you the thinking that we have had since 2002.

Two other areas that you raised in your letter: one was venue provisions and the other was interlocutory appeals. I can tell you, Mr. Chairman, that our interlocutory appeals, that is an area of expertise in which we are turning to the Department of Justice. I had a conversation with people from the Department of Justice the other day. There are some technical concerns that they have. I know they want to engage with the Committee on that, but quite honestly, we do not want to have an opinion solely from the United States Patent and Trademark Office because we think the Department of Justice has to be involved.

I would direct your attention to something I am sure you are aware of, which is that Chief Judge Paul Michel, the Chief Judge of the Court of Appeals for the Federal Circuit, has weighed in on what he thinks procedurally could be problematic about interlocutory appeals, about what the workload would look like and what the problems might be there.

On venue, we are also looking at the Department of Justice. I know they have also raised on venue technical concerns as well, and they want to raise with the Committee what thoughts they have on venue as well.

[The prepared statement of Mr. Dudas appears as a submission for the record.]

Chairman LEAHY. Thank you. The Federal Circuit has held, analyst know, that the PTO—you mentioned them. They have held that the PTO does not have the substantive rulemaking authority that other Federal agencies do. In your testimony you state that PTO believes that rulemaking authority is good for the patent system, but you are concerned that the authority we grant PTO in this bill gives you too much discretion.

I am not quite sure I understand that. How do you believe such authority would be misused by the PTO if they are not further constrained?

Mr. DUDAS. Mr. Chairman, we no longer have that concern. When we first saw that provision, we did have that concern in case it would allow for patent term extensions or other things that could be politicized before the Office. We do not think rulemaking authority would allow for such politicization and just think it is fundamentally a good provision.

Chairman LEAHY. I appreciate that very much. And we have heard numerous complaints about the quality of patents issued by the PTO, as you have, and I know you are trying to get on top of that, and in S. 1145 we tried to address this in several ways. One important improvement is the creation of a system for third parties to submit relevant information early in the application process, and I understand that that is something that normally does not happen today.

Can you comment on the importance of outside third-party experts providing relevant information to PTO?

Mr. DUDAS. The administration is strongly supportive of that provision, and, in fact, we believe that patent quality is a shared responsibility. It begins with the patent application. It should give the patent applicant both an opportunity and a responsibility to give more information, but also the public at large.

Right now, the rules under which the USPTO operates, after a patent application is published after 18 months, someone has an opportunity for 2 months to submit information, but they cannot comment on that. We think that bringing the public, giving the public the opportunity—not a requirement, but the opportunity—to give information that they think is relevant can only enhance patent quality.

When patent examiners have the right information, they make the right decisions.

Chairman LEAHY. I want the press to know just how closely the administration and I see eye to eye.

[Laughter.]

Chairman LEAHY. There are some who think that does not always happen, but I mention that only semi-facetiously. We really have worked, as I said earlier, in a bipartisan—to actually make it nonpartisan legislation. A key component, of course, is the structure of post-grant review, which has become a matter of a lot of discussion around the country. Certainly we heard it—I think Senator Hatch and I heard it from just about every stakeholder in this thing. You support such review.

Tell me how a second window post-grant review would provide a more efficient alternative for determining patent validity than full-blown litigation.

Mr. DUDAS. Mr. Chairman, first off, the estimates that we see on what full-blown patent litigation—again, most cases settle, but full-blown patent litigation can cost upwards of $5 million or more. The concerns that we have heard from people are often that they are before a jury who are not necessarily experts, who do not understand necessarily the validity of the patent. Much like ex parte reexamination and inter partes reexamination in the USPTO, a post-grant opposition would allow experts, judges who are already at the PTO making decisions on patentability and on appeals and interferences, give them the opportunity, experts in the field, to make these decisions.

What post-grant opposition offers that current reexaminations do not offer is a process that looks more like litigation, that allows witnesses and allows more of that type of environment. In a way, I think post-grant opposition with the second window is the best of both worlds, because it is an alternative to litigation before experts that is cheaper and will be quicker.

Chairman LEAHY. I know as we have been preparing this, we have had a lot the staff working, Susan Davies especially from my office, and one of the things we do in this is we amend the prior user rights to apply to all patents being prepared commercially. I am told there has been a lot of comment on that. But if you have the certainty created by the first-to-file system in the bill, is there any reason that an inventor using an invention should not be able to defend against a suit by a person who later files a patent application for a similar invention?

Mr. DUDAS. The concern that the administration raises and that some others have raised with prior user rights is that it might upset the balance between trade secrets and patents. In other words, the patent system is meant not so we make millionaires, not so we do—but so that we have disclosure of inventions. Ultimately, you disclose the invention. It is available to the public at large. In a certain amount of time, within 20 years, it is made freely available to everyone. Prior user rights right now exist under the law. If it is a year prior to filing, this might encourage people, prior user rights right up to the moment of filing, could encourage people to adopt trade secrets, which does not disclose technology. So in a way, what trade secrets—the patent system says if you disclose fully and make your information available to everyone so that everyone can use that and it will be freely available within 20 years, we want to encourage that.

Prior user rights will encourage people to have trade secrets which basically says you can have this protection forever, but in exchange for that, you have to keep it secret.

So I think the concern we have on prior user rights is twofold: first is that prior user rights might encourage trade secrecy more, which is a fine method, it is legal, but it does not encourage disclosure, which we want under the patent system. And the second area, which you have already alluded to, is right now we do not have a first-to-file system, but the bill does propose to have a first-to-file system.

Chairman LEAHY. Thank you.

Senator Hatch?

Senator HATCH. Thank you, Mr. Chairman.

I am concerned about, among other things, the inequitable conduct provision from last year's bill because it was removed. Attorneys well know that the inequitable conduct defense has been overpleaded, and at least in my estimation, and I think the estimation of many others, it has become a drag on the litigation process. And as you, I believe that reforms to the inequitable conduct defense should focus on the nature of the misconduct and not permit the unenforceability of a perfectly valid patent on a meritorious invention. And sanctions should be commensurate with the misconduct. At least that is my view.

I understand that the heart of the inequitable conduct defense lies with the quality of the patent application, including information disclosures. Now, in your testimony you describe that over half of all submitted applications either had no information disclosure statements or contained inordinately large information disclosure statements that, in effect, bury relevant information.

Now, could you please describe for us the impact this has on patent quality, pendency, efficiency, and even the outcome in litigation?

Mr. DUDAS. Absolutely, Mr. Senator. I appreciate the question, and I was hoping at the time of the opening statement to raise this. I have a box of materials here that I will just show you. It is a good example of what we get in the Patent and Trademark Office at times.

This is one box of materials that a patent applicant might have submitted that someone thinks would be relevant, and the problem is—what I am raising right now is 2,600 pages of material that was submitted in one box in one patent application, and there were 27 other boxes that had this amount of material inside the patent application.

The problem with that is that an average examiner in this case would have an average of 24.5 hours. Certainly an examiner might take more time in that case. The problem with inequitable conduct is, as it has been interpreted now, we absolutely believe at the Patent and Trademark Office that there needs to be significant penalties for someone who tries to purport fraud on the Office. But we want to make certain that the remedies are commensurate with what the issue is, that inadvertent mistakes, innocent mistakes, are not punished more than they should be.

So as you mentioned, 25 percent of the cases we get absolutely nothing. The applicant has said we have nothing that we can pro-

vide that we think is significant. In 25 percent of the other cases we get an inordinate number of disclosures, including 28 boxes that are this large.

Simply put, in our office we have had an application that has 3,000 claims and over 2,000 references. The Cray supercomputer was 12 claims. The microcomputer was eight claims. The MRI was 16 claims. Our point is that the reason why we find that we should resolve inequitable conduct is to encourage applicants to give more and better information. Do not give us 28 boxes of material like this. Give us what is truly relevant so that you can have a higher-quality patent. And we think in order to do that, we have to make inequitable conduct something that absolutely punishes fraud but absolutely promotes disclosure, and also we want to make certain that we take care of small inventors who might not have the resources to give us that background.

Senator HATCH. Mr. Dudas, the USPTO consists of very skilled and dedicated examiners. I think they are committed to the granting of quality patents. Now, I understand, as you have just explained, the rigorous time constraints that examiners must follow in order to accommodate the hundreds of thousands of patent applications that they receive each year. Now, it is hard for me to envision how an examiner can meaningfully consider boxes and boxes of references in the short amount of time they are allotted.

How do we get patent applicants to not shirk their disclosure responsibilities and not overwhelm the system? Would that be an extension of what you just said?

Mr. DUDAS. It would. I think the Patent and Trademark Office has the authority to require more and better searches to be submitted, to have reports submitted to the office. But in order to do that, we want people to feel encouraged. Right now, applicants feel that they cannot, or at least they believe they cannot, disclose information because they say they fear that they will be found for an innocent mistake, and there are some cases that have shown that.

Again, we think if we can give people the right incentives, then we should require them to give us more and better information. Our error rate is at a historic low right now. Our approval rate is at a historic low. There have been more quality initiatives put in place, but there is more that we can do. But it cannot just be the Patent and Trademark Office. As the Chairman noted, the public has a role to play, and certainly the applicant, who gains all the benefits from a patent application, has much to do.

Senator HATCH. Well, this proposed legislation would institute a robust post-grant review process so that third parties can challenge suspect patents in an administrative process overseen by the USPTO rather than through costly litigation. Now, some argue that the USPTO does not have the expertise to handle a post-grant review process. I would just like to have your thoughts on that.

Mr. DUDAS. I think there is probably no place better than the USPTO that has the expertise. We have administrative patent judges who handle appeals and interferences right now.

The one issue that I would note is the post-grant, as it is right now, we believe we might not have the resources to ramp up the number of people we need to have as judges if we put all million and a half patents that are available now subject to post-grant re-

view. But as far as expertise, I do not think there is a better expertise truly anywhere in the world than among our administrative patent judges.

Senator HATCH. I think you make a good point on that.

Thank you, Mr. Chairman. I appreciate it.

Chairman LEAHY. Thank you.

Senator Coburn?

Senator COBURN. Thank you. The problem of fee diversion is not addressed in the bill, is it, the administration's position that they would like to see fee diversion ended?

Mr. DUDAS. The administration actually for the last 4 years has ended diversion in the President's budget and has essentially -the difference that is made under the Government Performance and Results Act, the Office had averaged meeting about 25 percent of its key goals. After that had ended in the President's budgets and Congress supported that, and having an aggressive Strategic Plan, we have moved up 50, 70, 90 percent of our goals, up to 94 now.

Senator COBURN. The post-grant opposition process, is it not true that the Japanese presently are thinking about doing away with theirs because of the negativity that they have seen in terms of innovation in Japan?

Mr. DUDAS. I am not aware that they have done away with their post—

Senator COBURN. No. They have not done away. Are they not considering it?

Mr. DUDAS. I am not aware that they are considering—I am not aware that they are, but I could understand. They have a very big concern in Japan about what they consider filing of junk patents, and they have a big concern about what is coming.

I will tell you Japan did change at one point. They had a system where they had a first window and a second window type of—and they have changed it to a second window the entire time. And I think that is where the source of their concern is, that you have an unlimited ability to challenge the patent throughout the life.

Senator COBURN. If you applied the European rate, what you see in the EU, 5.3 percent of all patents go through a challenge in the second opportunity, and you apply that to a U.S. patent, if you assume the same, that is 8,600 cases that you are going to add per year in a post-grant review. Are you capable of handling that?

Mr. DUDAS. I do not believe right now we are capable of handling 8,600 cases, and we have reason to—

Senator COBURN. But that is 8,600 cases based on what you approve, correct?

Mr. DUDAS. That is 8,600—yes, if it is 5.3 percent of—we approve about 180,000 a year.

Senator COBURN. Yes, so you are talking about 8,600 on what you approve, and then if we open it up to all in the past—

Mr. DUDAS. Right, right. That is the source of our concern. We actually think the European system—because of the way the European system works where you have to challenge validity country by country, we probably should not get 5 percent. But there is no question that we have a great concern that if we saw those kinds of numbers, we would not be in a position today and we probably will not be in a position in the next few years to be able to handle

that kind of influx on post-grant opposition. It would be because of the lack of resources or ability to ramp up.

Senator COBURN. So let me understand. You would dispute that we would have 5.3 percent?

Mr. DUDAS. We think that we would not have 5.3 percent. That is correct.

Senator COBURN. And why would you assume that?

Mr. DUDAS. We think in the United States—because a lot of the times in the European Union we believe much of what is driven in their post-grant opposition system is the fact that if you can take down the patent in post-grant opposition, it will be gone for good. Also, in the European Union you would have to challenge validity on a country-by-country basis. In the United States, of course, if you go to the courts and you win in the courts, that is good throughout the United States. So we think more people would still opt for litigation.

Senator COBURN. The average length of procedure in a post-grant opposition in Europe is about 31 months. So if the pendency time in the U.S. is about 31 months and if post-grant opposition is about 31 months, you are talking about taking 5 years of life out of a patent. Is that good for innovation in this country?

Mr. DUDAS. Certainly lengthy pendency in terms is not good for innovation in—

Senator COBURN. Well, lengthy pendency and lengthy post-grant opposition.

Mr. DUDAS. And lengthy post-grant opposition is not as well, absolutely. We believe that we could get the job done likely within 12 months under an appropriate post-grant opposition procedure that ramps up at the right rate.

Senator COBURN. I would have trouble believing that, and I think most people would who have been through the litigation and dealing with Government agencies in this country. Twelve months I think is a pretty forward-looking number.

Let me ask you one other question. Would people not really have about three bites at the apple under a post-grant—a second window opportunity, take one segment of their claim and maybe lose it in the post-grant and then still be able to go into the courts on another claim, even though they might have lost the initial claim? So what you could actually do is take 31 months of pendency, 31 months of post-grant review, and then 3 to 5 years in the court, so essentially you could get a patent of half of its life?

Mr. DUDAS. There is no question there are several options that people have under existing law and that they could have under the post-grant opposition system.

I will say that the third element, the third bit there, if the administration's position is adopted, would not exist because the estoppel needs to be quite strong that says on the second window any issue that you raised or could have raised—

Senator COBURN. Or could have raised.

Mr. DUDAS.—you can bring up no place else. That second window, from the administration's position, is intended to allow nothing—a complete alternative to litigation.

Senator COBURN. All right. And I would like your comment on venue shopping. The bill as it is currently written, the infringer ac-

tually has venue-shopping capability, but the patent holder does not. Do you see a problem with that?

Mr. DUDAS. I do think that you have to consider everyone involved in terms of venue. Again, the Department of Justice will weigh in on this, but I will say that the venue provision is important to balance both the alleged infringer, or the defendant, and also the plaintiff, or the patent holder, particularly since a patent holder might be a small innovator, might be an independent inventor or a small business. So that is something that should be considered, and I think on balance needs to be considered.

Senator COBURN. Do not patent holders want a venue so that they can limit their costs of litigation so they can get it seen and heard and handled quickly rather than favorably? Because—

Mr. DUDAS. I am sorry. Could you repeat that question? I apologize.

Senator COBURN. For example, there are certain places where you can go and get some—for example, in Virginia, you see a great response, a quick time. What that relates to is less cost. We have small innovative companies in this country who have limited resources, and if you limit their ability to go to a place where they have expertise, where they are very knowledgeable, they do this a lot, their dockets are not crowded with criminal cases, do you not see the cost of litigation as a factor in limiting patentability and maintaining the viability of a patent?

Mr. DUDAS. Certainly, people are often looking at making certain they go to a jurisdiction where they think they can get a decision quickly, where they think they can get the expertise. When the Eastern District of Virginia adopted the rocket docket, it became the place where patent cases went and people became concerned about—

Senator COBURN. But if you are an infringer, maybe you would want to go someplace where it takes 5 to 7 years.

Mr. DUDAS. Certainly. I think that would be—

Senator COBURN. Thank you. I do not have any additional questions. Thank you.

Chairman LEAHY. Thank you very much.

Mr. Dudas, thank you very much, and when you review the transcript, and if you are also reviewing anything that is said by any of the witnesses, if there is anything you wish to add, please feel free, and I will leave the record open, with no objection, for a few days so that others can ask questions.

Mr. DUDAS. Thanks, Mr. Chairman.

Chairman LEAHY. Thank you very much. We will take a 3-minute recess while we set up for the next panel.

I have also been advised we are going to have votes around 11:30, 11:35, and the reason I mention that is to suggest that everybody try to keep within their time limits. I do not mean to be a pain in the neck on this, but you are going to have to so that we can get to the votes. The whole testimony of all four of the panelists will be placed in the record as though read. I would hope that you would be able to summarize so we can go to questions.

The first witness will be Bruce Bernstein, InterDigital's Chief Intellectual Property and Licensing Officer. He manages the company's intellectual property assets and the patent licensing busi-

ness. I will also put his full and impressive background—and I mean that seriously -in the record.

I will break from my normal procedures to swear all witnesses. Because of the nature of this, I will not.

Go ahead, Mr. Bernstein.

STATEMENT OF BRUCE G. BERNSTEIN, CHIEF INTELLECTUAL PROPERTY AND LICENSING OFFICER, INTERDIGITAL COMMUNICATIONS CORPORATION, KING OF PRUSSIA, PENNSYLVANIA

Mr. BERNSTEIN. Thank you. Chairman Leahy, Senators Hatch and Coburn, my name, again, is Bruce Bernstein, and I am Chief Intellectual Property and Licensing Officer of InterDigital Communications. InterDigital is headquartered in Pennsylvania, and we have a fairly large facility in New York. I great appreciate this opportunity to discuss the importance of strong patent rights to InterDigital, a founding member of the Innovation Alliance.

InterDigital is a small company, yet we have enormous inventive capacity. For over 30 years, we have been at the forefront of research and development in advanced wireless technologies, and today virtually every digital cellular telephone has our technology inside of it.

As the owner and licensor of hundreds of U.S. patents, InterDigital believes deeply in the promise and constitutional precepts of our patent laws, namely, that a strong and balanced patent system is absolutely vital to America's economic and innovative leadership. Incremental and narrowly targeted reforms we believe are important to the continued health of our patent system, but we are concerned that sweeping changes may be unwarranted and harmful and will have unintended adverse consequences.

Let me start off by saying that InterDigital actually supports several portions of the bill, including expanded third-party submissions of prior art and universal publication of applications, and we fully support the objectives.

However, we are very concerned that certain of the proposed measures would undermine enforceability, predictability, and the value of all patent rights and would actually encourage litigation and abuse of the system. In particular, mandatory apportionment of damages and post-grant opposition we believe would fundamentally weaken the patent system by making it far less expensive to infringe patent rights, yet at the same time more expensive to actually enforce and defend them. And for licensing-based companies such as InterDigital, the collective effect of these measures would be severe; and, simply put, infringers would have little incentive to take a license without first being sued and every incentive to game the system and risk litigation.

In the wake of eBay and other recent Supreme Court decisions that we have heard about today, the balance of power between patent owners and infringers has already radically shifted, particularly to the detriment of smaller firms that are in the business of licensing their innovations. We believe that the proposed mandatory apportionment and post-grant opposition provisions would, for many such innovators, drive the final nail in the coffin.

InterDigital's patented technologies are respected and highly valued, and our licensing history is extensive and well established. Even still, we have every reason to believe that large users of our technologies—and these include some of our existing licensees—would exploit the proposed post-grant opposition and expanded reexamination procedures to essentially tie up our patents through endless administrative and judicial challenges. In fact, I have been told as much by several of these companies over the past year.

While most of these companies say they respect intellectual property rights, in reality their sole objective is either to avoid, significantly reduce, or at a minimum severely delay making any licensing payments whatsoever, regardless of the validity or strength of the patent.

America's leadership in this knowledge-based economy is highly dependent upon our most valuable natural resources and exports, namely, our ideas and our innovations. If the U.S. weakens our patent rights and remedies at home, our ability to press foreign countries to respect American intellectual property and, frankly, to adequately enforce their own intellectual property laws will be greatly diminished. A patent is intended to be an incentive and reward for innovation, and companies that develop innovative technologies but choose to license those technologies rather than manufacture—and I want to stress the point that sometimes that is not by choice—are a critical and fast-growing element of America's economy. We believe that Congress should avoid enacting legislation that prefers any given business model or swings the pendulum toward any specific stakeholder, no matter how well organized or vocal they may be.

[The prepared statement of Mr. Bernstein appears as a submission for the record.]

Chairman LEAHY. Thank you.

Ms. Doyle? And I should also note that Ms. Doyle is the Senior Vice President and General Counsel of Palm, Inc. She manages delivery of legal services to the company's worldwide operations. Her legal career spans more than two decades beginning with her first job in business litigation at Manett Phelps. She joined Teledyne in 1984 where she worked for 12 years in increasingly higher roles. She returned to Silicon Valley in 1996 to join General Magic, Inc., as its general counsel and secretary, joined Palm in April 2003. I would note that she received her law degree from the Boalt Hall School of Law at the University of California, where she was president of the law school student body of her graduating class. I never got to do that.

I will put the rest in the record. Go ahead, Ms. Doyle. Please try to summarize, especially for the points that you most want us to remember.

STATEMENT OF MARY E. DOYLE, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, PALM, INC., SUNNYVALE, CALIFORNIA

Ms. DOYLE. Thank you very much, Chairman Leahy,

Chairman Leahy, Senator Hatch, Senator Coburn, and members of the Committee, my name is Mary Doyle, and as you said, Chairman Leahy, I am Senior Vice President and General Counsel of

Palm, Inc. I thank the Committee for the opportunity to testify on behalf of Palm and as a member of the Coalition for Patent Fairness in support of the Patent Reform Act of 2007. We believe this legislation will greatly enhance the ability of Palm and other companies like ours to innovate and to compete globally.

Palm and many others believe it is time to take stock of the U.S. patent system once again and to ensure that it is working in a fair and balanced way for American innovators across all industries. In our view, the provisions of this bill, S. 1145, accomplish that goal. We commend Chairman Leahy, Senator Hatch, and the other sponsoring members of this Committee for developing legislation over the past two Congresses that seeks to reconcile the interests of all stakeholders in the U.S. patent system to reach a fair and balanced result.

In my limited time now, I will focus on the issues you requested me to focus on, but during the question-and-answer period, I would like to discuss our support for your proposed changes regarding the apportionment of damages and the establishment of a more rigorous standard for imposition of triple damages upon finding of willful infringement.

We support reform of the patent system to permit interlocutory appeals to the Federal Circuit for Markman rulings and to discourage forum shopping. We also believe the proposed post-grant review procedures are a fair and reasoned response to unresolved patent quality issues and historical underinvestment in the work of the PTO. Before delving into these issues in greater detail, I thought I would provide an example of Palm's everyday experience with the patent system.

The company recently prevailed in a case in which the patent holder sought a claim interpretation that would include a Palm device, such as this Treo smartphone, within the meaning of the word "card." The district court construed the claim favorably to Palm and then granted Palm's subsequent motion for summary judgment. On the patent holder's appeal to the Federal Circuit, the district court's claim construction was reversed. On remand, the trial court conducted a second Markman hearing, once again construing the word "card," this time in conformity with the decision of the Federal Circuit, but again to Palm's advantage, not surprisingly. Summary judgment was granted to Palm a second time and was sustained on the second appeal to the Federal Circuit. There is now no question that devices such as these are not "cards." The cost of this litigation, however, and two trips to the Federal Circuit was $3.5 million, and this for a case that never reached trial.

Palm also routinely receives patent assertions delivered in the guise of invitations to license. Vaguely worded and generally unsubstantiated by claim charts or otherwise, these letters by themselves may expose and often do expose the recipient to triple damages for willful patent infringement. Invitations to license may in some cases be coupled with what I call the "thwack factor," named for the sound a large stack of patents makes when it hits the negotiations table. The thwack factor is credited with discouraging the recipient of a letter from undertaking the not insubstantial cost of doing an initial infringement and invalidity analysis to determine whether any of the patents in the pile are valid and infringed. And

I must say that most often many, and sometimes all, are invalid and not infringed. The goal of the asserter is obviously to move the focus of the discussion from whether a royalty is due to how much it will be.

The risk of triple damages, the thwack factor, and uncertainty as to the measure of damages that a court will apply often convinces many a recipient to achieve the best settlement it can under the circumstances and avoid the cost and aggravation of litigation. While we and many others successfully navigate these waters daily, there is no question that the license fees paid to patent owners, big and small, powerful and emerging, with products or without, is unjustifiably inflated to reward not the inventor but the litigator who takes maximum advantage of the current inequities in our patent system.

[The prepared statement of Ms. Doyle appears as a submission for the record.]

Chairman LEAHY. Thank you very much, and I would note that you what you spoke about, the cost of litigation going twice to the Federal Circuit, as I am sure you know, that is not an unusual experience. And although I have never quite heard, in our words of art, the thwack idea, I know it will probably become a word of art in this Committee.

Ms. DOYLE. Thank you, Mr. Chairman.

Chairman LEAHY. John Squires is the Chief Intellectual Property Counsel for Goldman Sachs and has global responsibility for all legal matters pertaining to intellectual property, including patents, trademarks, and copyrights. He has built the firm's intellectual property practice with focus on the capture, deployment, and monetization of firm-generated intellectual property.

I will put the full background in the record. I think, though, Mr. Squires, in my 32 years here, you are the first lawyer who has testified who also played as a linebacker for a Division I-AA team. That could be interesting in close negotiations.

[Laughter.]

Chairman LEAHY. I will leave it at that. Mr. Squires, go ahead, please.

STATEMENT OF JOHN A. SQUIRES, CHIEF INTELLECTUAL PROPERTY COUNSEL, GOLDMAN, SACHS & CO., NEW YORK, NEW YORK, ON BEHALF OF AMERICAN BANKERS ASSOCIATION, FINANCIAL SERVICES ROUNDTABLE, AND SECURITIES INDUSTRY AND FINANCIAL MARKETS ASSOCIATION

Mr. SQUIRES. Thank you, Mr. Chairman. That is a different thwack factor. Chairman Leahy, Senator Hatch, Senator Coburn, I am John Squires of Goldman Sachs, and I appreciate the opportunity to testify today.

I appear before you today as chairman of the Intellectual Property Subcommittee of the Securities Industry and Financial Markets Association and also represent the American Bankers Association and The Financial Services Roundtable.

Our respective industry organizations support S. 1145 because we believe these are precisely the issues that must be addressed to bring a system out of balance back into balance. We are grateful

for the substantial and thoughtful nonpartisan, bicameral work that is already underway.

Patents are still generally new to our industry. While financial service patents are generally attributed to the State Street Bank decision stemming from 1998, the truth of the matter is that modern banking and technology needs and the advent of the Internet flattened our world almost overnight. Since then, we have had to rethink and reengineer almost every aspect of our businesses to stay competitive in a global marketplace. Be it technology push or innovation pull, we would be here either way.

While patents in our industry do provide substantial benefits and incentives, particularly where open innovation or transparency are desired, the more common experience unfortunately has been that of a system in need of substantial reform.

Patent examination quality issues, predatory patent assertions, and litigation abuse have precluded continued progress and efficiencies in bettering the U.S. financial system. A recent Harvard Business School study concluded that financial patents are 27 times more likely to be asserted in a lawsuit than non-financial patents. And because patent suits carry the risk of injunction, the delivery of financial services in the U.S. economy is all too easily put at risk. We fear this is only the tip of the iceberg.

To be clear, our industry organizations do not see themselves as opponents of other views on the bill. Clearly, our member organizations finance drug companies and biotech companies of all shapes and sizes and seed venture capital firms and startups to help bring their visions to light. We believe and invest in their business models.

To convey to you our experience, I analogize to an investment portfolio. We view the current patent system as underperforming because it is overweight with an World War II era view of the world and underweight in terms of the robust and complex value drivers of the knowledge economy. To finish my analogy, it is time for Congress to enable patent law to generate the substantial returns for the U.S. economy and American competitiveness that it should.

With respect to the issues I have been asked to address, first, venue, we support the bill's venue provisions as an effective means to forestall blatant forum shopping and litigation abuse. Just because a server which processes a check or clears a security can be located anywhere should not mean that defendants can be found everywhere.

Second, interlocutory appeal. The availability of appeal will allow the original principals of Markman uniformity, clarity, and expeditious case resolution to be effectuated.

Finally, post-grant review. For industries with complex value chains such as ours, especially in the services area, a second window may be the only opportunity to challenge validity and get prior art in front of the agency expert at deciding it.

We thank again the Committee for the opportunity to testify and for the work that has already been done. We look forward to answering questions.

[The prepared statement of Mr. Squires appears as a submission for the record.]

Chairman LEAHY. Thank you very much, Mr. Squires.

Kathryn Biberstein—am I pronouncing that correctly?

Ms. BIBERSTEIN. It is "Biberstine."

Chairman LEAHY. I am sorry. She serves as Alkermes—how badly did I do that one?

Ms. BIBERSTEIN. Alkermes.

Chairman LEAHY. Alkermes. I am not going to read the rest of this. I am afraid—

[Laughter.]

Senator HATCH. You are 0 for 2, Mr. Chairman.

Chairman LEAHY. Yes, I know. She has also held positions at Crowell & Moring and the World Economic Forum. Senator Hatch and I have been at Davos often on that. B.S. from General Motors Institute, J.D. from the University of Michigan Law School.

Your full statement is part of the record. Please go ahead.

STATEMENT OF KATHRYN L. BIBERSTEIN, SENIOR VICE PRESIDENT, GENERAL COUNSEL AND SECRETARY, CHIEF COMPLIANCE OFFICER, ALKERMES, INC., CAMBRIDGE, MASSACHUSETTS, ON BEHALF OF BIOTECHNOLOGY INDUSTRY ORGANIZATION (BIO)

Ms. BIBERSTEIN. Thank you. Chairman Leahy, Senator Hatch, Senator Coburn, thank you for letting me testify today regarding patent reform. This issue is of critical importance to the more than 1,100 members of the Biotech Industry Organization, or BIO, whom I represent today.

As you consider changes to the patent laws, I ask you to focus on one key point: The patent system today is working to foster the innovation and investment necessary to bring new drugs to treat critical diseases to market in the United States. As we work together to strengthen the patent laws, I would ask that you safeguard this very important societal benefit.

My name is Kathy Biberstein, and I am the Senior Vice President and General Counsel of Alkermes. Alkermes is exactly the sort of success story that the U.S. patent system has fostered in this country. Founded 20 years ago on the basis of a proprietary patent estate, last year Alkermes became one of only a handful of profitable biotechnology companies. We reached this milestone by developing innovative medicines—Risperdal Consta, a long-acting atypical anti-psychotic for schizophrenia; and Vivitrol, a once-monthly injectable treatment for alcohol dependence—based on a patent estate we invested in over decades.

Like us, the hundreds of other BIO members companies, mostly small, emerging companies with little revenue and no products on the market, leveraged their patent estates to attain the public and private capital and partnerships with pharma partners to develop nascent technologies into the drug products you see on the market today. And you all know these products. They are the ones you search for on the Internet when a loved one develops a cancer or a neurological disorder or HIV/AIDS. These are our industry's success stories.

Biotechnology product development is high risk. It can take a decade and hundreds of millions of dollars, and most products never reach the market. Investors invest in such products only if

they believe there can be a return on their investment. Patents provide this assurance.

While we believe the patent system is working, there is always room for improvement. BIO welcomes many of the positive reforms contained in the Patent Reform Act of 2007. However, the bill includes three provisions that lack any degree of consensus: a broad second window for administrative post-grant challenges, a dramatic expansion of the law on apportionment of damages, and a sweeping delegation of substantive rulemaking authority to the PTO.

Both a patent challenge, easily brought at any time during a patent's term under a low standard of proof, and a calculation of damages in which courts must subtract all elements that existed in the prior art, with the effect of making patent infringement cheaper, will diminish patent value and, therefore, discourage investment. There is broad consensus against these controversial changes.

Senator Hatch spoke about the problems with the inequitable conduct doctrine, and I think you said it perfectly. The best mode requirement in patent law has similar problems, and BIO encourages its repeal.

You have also asked BIO's views on venue reform and interlocutory appeals of Markman rulings, and I have included that in my testimony.

So I urge the Committee to focus on the areas in which there is a broad consensus on the need for reform and to ensure that any new legislation strengthens the system that serves as the engine of this country's innovation.

Thank you.

[The prepared statement of Ms. Biberstein appears as a submission for the record.]

Chairman LEAHY. Thank you very much.

Starting on my left, your right, Mr. Bernstein, on the question—I mean, most of the people testifying have been large industries, but you have the small inventors, and I think that we have to be concerned about them. Senator Coburn and others raised that issue. They do not have the money to challenge patents before it becomes painfully obvious it may affect them. Are we suggesting they are on their own?

Mr. BERNSTEIN. If you are asking about smaller companies that are on the infringer side of things—was that your question?

Chairman LEAHY. No. Well, small companies that may want to challenge patents.

Mr. BERNSTEIN. Right. What do they do, yes. Our view is that there is an existing procedure in place, and we are all aware of it. It is called—

Chairman LEAHY. I am thinking of, you know, the post-grant process where you can harass competitors. We have tried to build safeguards into that, but are small inventors protected enough?

Mr. BERNSTEIN. In terms of the post-grant, the current proposed language, you know, our view is we are all for cheaper mechanisms to either weed out bad patents, invalidate, you know, bad patents, or to more appropriately tailor the scope of issued patents in view of new prior art that has come to people's attention. Our concern is that there is no balance to that procedure as currently in place and that it can be subject to widespread abuse.

Chairman LEAHY. As I read your testimony, you oppose granting substantive rulemaking authority to the PTO. Is that correct?

Mr. BERNSTEIN. We oppose that. Our view is that that is better left for Congress so that it can be subject—

Chairman LEAHY. But virtually every other agency of the U.S. Government has that, and I have found the people over at PTO to be honest, hard-working civil servants. Why should they be different than other Federal agencies?

Mr. BERNSTEIN. Unfortunately, I cannot comment on the other agencies and the rulemaking authority. I am not that familiar with it. But in terms of the PTO, our view is that it is such a critical issue for the U.S. economy that it is something that should be subject to debate within the Congress and a hearing such as this.

Chairman LEAHY. I have gotten a lot of letters about Georgia Pacific, the rules and damages, treating it almost like gospel. But 18 months ago, to go back to my mail, I got the same recitation on automatic injunction, saying that if we change the rule, then Heaven and Earth are going to collapse. But the Supreme Court rejected that unanimously in eBay, of course. I did not believe that disaster was going to follow, anyway. Dire consequences have not followed. Why do we have to worry if you have assertions of impending disaster on the apportionment issue? I mean, they seem like almost the same arguments we heard on automatic injunctions.

Mr. BERNSTEIN. Yes. Two things. One, in terms of the eBay decision, I frankly think it is too early for anyone to say what the effects are. I mean, there has been a handful of cases, district court cases, were injunctive relief has been denied. You know, I have looked at those cases, and my guess is the judges in those cases—and Judge Michel from the Federal Circuit raised this issue. What is the practical way of implementing, you know, the post-eBay judgments? So when there is no injunctive relief, basically you have the court setting royalty rates for the life of the patent.

So I think the jury is still out on the effects of eBay, and, you know, I think this is something we are encouraging Congress to wait and see what happens. And I think it will take some time to see the true effects of the eBay case.

In terms of apportionment of damages, you know, I have been told this by companies. I do a lot of licensing. Day in and day out, I am traveling. I am on the road dealing with companies trying to secure license agreements. And the combination of lack of injunctive relief for patent holders and the possibility of significantly under-market damages have had—I have had people come back to me and say, You know what? Just sue us, because at the end of the day, you know, maybe 5, 6 years out, we may lose the case, but you are not going to get an injunction, so we are going to continue to infringe. And we will owe you something less, if not—you know, equal to or less than what you are asking for now.

Chairman LEAHY. Ms. Biberstein, you say also oppose, am I correct, granting substantive rulemaking authority to the PTO?

Ms. BIBERSTEIN. Correct.

Chairman LEAHY. And you object to the post-grant provisions of the bill because it contains a significant economic harm trigger for second window, but you endorse the PTO letter to us, which takes

issue only with the same language. Do I understand you correctly that if we refine the harm test, your concerns would be addressed?

Ms. BIBERSTEIN. The second window you are talking about?

Chairman LEAHY. Yes.

Ms. BIBERSTEIN. Yes, the second window is our concern. You know, it is not—this is not a normal experience for me to be up here with all you people. Normally I sit in my office in Central Square, and we worry about just keeping the company going from 1 day to the other, and—

Chairman LEAHY. But that is not where you are today.

Ms. BIBERSTEIN. That is not where I am today.

Chairman LEAHY. So I wonder if you could back to the question.

Ms. BIBERSTEIN. These issues, the second window, apportionment of damages likewise, are issues that, frankly, make us feel threatened for our existence. The second window, we are not opposed to a post-grant opposition proceeding, one that, you know, encourages prior art to come out early on so that we have good patents granted on which people can invest hundreds of millions of dollars in terms of clinical trial and regulatory approvals. The problem for us is we start investing that money, and we invest a lot of it, and if you have an open-ended second grant period, there is a risk that investment money will not come in and will not be made available because you have got a lower standard of review.

Chairman LEAHY. Your industry is unique in this regard?

Ms. BIBERSTEIN. I do not know if my industry is unique in this regard. I believe that there are a lot of people who have to invest in ideas for a long time, and I believe that we all want high-quality patents as soon as we can get them. So waiting, encouraging people to wait until later on to bring information that may improve the quality of a patent is, frankly, I think, not what we are trying to do here.

Chairman LEAHY. Thank you.

Senator Hatch?

Senator HATCH. Well, thank you, Mr. Chairman.

Ms. Doyle, your comments about the post-grant review procedures were interesting. Would you explain, if you will, how the post-grant review process can lead to reduced litigation costs? And do you think the proposed "second window," as currently written, you know, is adequate to accomplish this?

Ms. DOYLE. Senator Hatch, Palm is a small company. About 180,000 patents are issued every year. It would be very difficult for us to review every one of those that may implicate our industry or to anticipate that one that says the word "card" in it might ultimately be attached to us. So, in our view, a second window is very important because we would not be able to catch every patent that ultimately is stretched to apply to us during the initial post-grant proceeding.

I believe it will reduce litigation costs because at least historically, if we refer to the European system, it is much cheaper to proceed through a very short—what turns out to be a very short process there. And it in most cases avoids litigation altogether.

The advantages of kind of getting to the point of a matter, to understanding whether a patent is valid or not, has much to do with whether or not someone in the position of Palm believes it is impor-

tant to take a license. And as many of us do, we respect others' intellectual property as we hope others will respect ours.

Senator HATCH. Let me ask you this: Do you believe that providing attorneys' fees and costs to a prevailing party would further reduce the costs of litigation and alleviate the burdens on the present court system?

Ms. DOYLE. In my view, it would simply increase the cost of settling a matter because, as you know, the settlement calculus, when you are trying to avoid, for example, a frivolous claim, involves the amount of—you know, the litigation avoidance. And if I have to add Palm's legal fees together with the opposing party's legal fees, I think in most cases I will be faced with a situation where the cost of settlement will go up.

Senator HATCH. OK. Ms. Biberstein, I share your concern about reform of the inequitable conduct doctrine. You mentioned in your testimony the regulation of applicant conduct should be committed to the expert agency, and that is USPTO. Now, could you please elaborate on what sort of agency actions, you know, you envision would remedy the current problem of ineffective or incomplete communications between patent applicants and patent examiners?

Ms. BIBERSTEIN. Inequitable conduct, although it is alleged a lot today, is rarely found. The Patent Office has means today to require, you know, swearing-in or inventors to swear under oath regarding inventorship, to make these statements. They all exist today. And there are also penalties that exist today for people who lie, you know, when they swear an oath before the Patent Office.

So I think that the Patent Office has those tools already, and they may have additional ones that I cannot speak to that could help encourage, you know, full disclosure. But I do not believe that inequitable conduct is an issue in patent prosecution today because it is rarely found to exist. It is just a huge cost in terms of litigation because it is always alleged.

Senator HATCH. OK. Mr. Squires, I understand the need for an interlocutory appeal of Markman rulings,

especially considering how technical and scientifically complex most claim construction analysis can be. Yet, as you mention, some argue that this process could result in providing litigants, I think if I recall it correctly, "two bites at the apple."

Now, I am interested in hearing your ideas on how to prevent this from happening.

Mr. SQUIRES. Thank you, Senator Hatch. The interlocutory appeal for a Markman hearing is so important because the original principle is laid down in Markman, and that is for national uniformity in interpreting patent claims. So you have district courts currently that are reversed at a rate of 35 percent from their Markman decisions in the Federal Circuit, and that leads to two trials, typically, because as Ms. Doyle testified to, another hearing goes on, the claim construction was considered to be wrong when given below and has to be done again.

So the Markman opinion itself stresses the importance not only of uniformity but the Federal Circuit's role as having exclusive jurisdiction to provide that uniformity. The issue is often case dispositive and, therefore, the quicker you can get to a true meaning of the claims, which is in dispute, which drives the infringement

analysis, the better chance you have overall in the long run of reducing the volume of cases and having them resolve either on summary judgment motion or settlement of the parties.

Senator HATCH. Well, thank you.

Mr. Chairman, I know my time is up and I have to leave, but could I ask one more question?

Senator CARDIN. [Presiding.] The Senator may proceed.

Senator HATCH. Mr. Bernstein, I want to thank you for your testimony. Your comments on the post-grant review process provided me some additional insights on the concerns about the second window. Now, you stated that the second window could be triggered by virtually any challenger at any time. It seems to me the parties seeking to have a cancellation petition granted have certain hurdles to overcome, such as establishing significant economic harm. In other words, it is not a slam-dunk that every petition filed will be granted.

Now, why do you believe that the proposed criteria are inadequate, especially one cannot simply initiate a second window review as a matter of right?

Mr. BERNSTEIN. I believe the other was the threat of being sued.

Senator HATCH. Right.

Mr. BERNSTEIN. You know, my view is that is not even a hurdle in terms of the threat of being sued, I mean, simply putting someone on notice. Ms. Doyle suggested that there are situations where patent holders will simply say, "Here is an invitation to license," without even specifying why they are infringing. I think that kind of threshold would promote companies to continue to do that because once you have laid out your infringement case, you would have this threat.

So from my perspective, those hurdles are de minimis, would be easily met in almost all situations, and I am talking from a purely practical standpoint because, again, I live the licensing business day in and day out. And at some point in time, you do put someone on full notice and you show claim charts on why they infringe. So I could see that, at least that hurdle being met each time.

Our view is on post-grant opposition, you know, we are not opposed to a cheaper way of getting bad patents out of the system or a cheaper way of having patents reexamined. What we want to make sure is that, in fact, is a less expensive way and it does not end up costing as much as litigation. I mean, people have talked about the opposition process in Europe being cheaper. It is not. We have spent half a million dollars on opposition proceedings, and they have taken 5, 6-plus years. And that does not do people any good, patent holders any good.

So we are looking for a quick method and a method that is fair to both parties.

Senator HATCH. Well, thank you very much.

Thanks, Mr. Chairman.

Senator CARDIN. Senator Coburn?

Senator COBURN. Thank you.

In last year's bill, we had a "loses pay" provision. What are each of your comments on whether or not that would slow down some of the overly aggressive both claims for licensing and also the ability to defend your patents? Any comments?

Ms. DOYLE. Senator Coburn, I shared my comments with Senator Hatch, which I believe is to the effect that "loser pays" will end up just increasing the average value of settlements.

Senator COBURN. Why is that?

Ms. DOYLE. Because when you decide whether or not to settle a case, the standard settlement calculus is you add how much your defense costs will be and how much you believe you would likely pay if the worst happened, and then you discount it by the likelihood of a negative result—or positive result in that case—to decide how much you are going to pay. And if you add another certainty or another element of damages effectively, you just increase the calculus by the amount of the other side's fees.

Senator COBURN. So you think there is no inhibitory effect for people making claims that are not valid if they have to—and you can prove the fact that you have a valid patent and they are going to pay your costs for litigation, you think there is no inhibition in that at all?

Ms. DOYLE. I would not say, Senator, that I think there is no inhibition at all. I know there are differing views on the subject. But in my view, from my daily life, as a defendant typically, it will simply increase the cost of—

Senator COBURN. So when you pick up that Palm, that Treo there, that has supposedly a card, which you have defended twice, and then that gets known that all those—the $3.5 million costs go against the individual, you do not think that will have an inhibitory effect in the future on people coming to challenge your patent?

Ms. DOYLE. In this case, I think it may have because the person involved was a relatively small holder. But most of the holders who are asserting are very capable and they just—

Senator COBURN. Law firms.

Ms. DOYLE. Well, they are either taking it on contingency, in which case there isn't anybody's cost, at least as far as the plaintiff is concerned, No. 1. And, No. 2, licensing practices are often very big. The best known licensing groups are companies that hold tens of thousands of patents and will simply include the cost of, you know, their attorney fees in their general business model.

Senator COBURN. Mr. Bernstein, what are your comments on that?

Mr. BERNSTEIN. I strongly disagree, respectfully disagree with Ms. Doyle. But, you know, the companies, for example, the small patent holder you are talking about, I mean, somebody pays to sue Palm. It is not free, and it may not be the inventor. It may be the law firm doing it on full contingency. But it is coming out of, you know, some partners' pockets. It may be an investor group, a VC, an investment banker, or some wealthy individual that is funding it.

So it is coming out of somebody's pocket. As far as I know, most of the people I deal with do not like to throw money out the window. And if there is a serious concern about your case, I cannot believe that prudent investors—and I think most of these people, including contingency firms, are prudent investors—are not going to want to throw their money away on a bad case. And it is not insignificant in terms of attorneys' fees. If you are telling me—

Senator COBURN. So it would eliminate some of this bad acting.

Mr. BERNSTEIN. I think so. It sets a higher threshold for—rather than the Rule 11 legal threshold, it sets a financial threshold, which, frankly, hits people I think a lot harder than the legal—

Senator COBURN. Ms. Biberstein, any thoughts on that?

Ms. BIBERSTEIN. I would agree with Mr. Bernstein. To the extent that these are people making economic decisions or economic investments in patents versus R&D investments, then they have to be making decisions on an economic basis, versus someone who is making on R&D investment in a patent might view it differently, so yes.

Senator COBURN. OK. Mr. Squires?

Mr. SQUIRES. I would agree with that. I think it would tend to reduce the speculative litigation, since there would be a new calculus into the equation, and I think it would have an effect somewhat like the eBay decision where you allow courts to do equity and took the automatic injunction away so that when money—monetary damage can compensate for the harm, that can be the reason not to get an injunction. The effect that had was really sort of reduce the thwack factor, the dollars attached to the thwack factor, similarly for a good calculus.

Senator COBURN. Thank you. And then for both Ms. Biberstein and Mr. Bernstein, if we had the apportionment rules contained in 1145 in effect when your companies started, just what is your opinion you think that would have had on the progress and success of your individual companies?

Mr. BERNSTEIN. To some extent, you know, Goldman Sachs is actually one of our larger institutional investors. I could ask Mr. Squires that question. But, you know, that is actually a very good question. From our perspective, it would potentially change the entire economics of our business. You know, we rely almost entirely on our licensing revenues in terms of income. We do not have products, actual widgets that we sell to fall back upon. And, frankly, you know, we have got over 300 or close to 300 engineers innovating day in and day out. We need to see—or the market and our investors, like Goldman Sachs, needs to see an appropriate investment. And with the current language, that investment would artificially drop, we believe, below market rates.

Senator COBURN. Therefore, there would not have been this extension and this growth and then the multiplicity of continued innovation?

Mr. BERNSTEIN. I think it would put a serious question to that, and, frankly, I am personally more concerned about, you know, the InterDigitals that have not even been started yet for the health of, you know, the American economy.

Ms. BIBERSTEIN. I am actually still concerned about the health of my company, because this is the device we are working on developing right now, this is an inhaled insulin device. And part of the path leading me here today was when I read this draft legislation, and I said, Oh, this is not a codification of a provision of Georgia Pacific. This is a brand-new provision. It is prior art subtraction.

I went to my CEO and I said, Well, look, insulin exists and a hand-held inhaler exists, but, you know, what does that mean for us in getting the investment necessary to bring the ability to inhale insulin, replacing multiple daily injections to the market? I do not

think there is anyone here who does not think that is a good thing for society.

I mean, I have on of these, too, but if I had to pick I personally I pick this. And so, you know, I continue to worry today about what this apportionment language will do to my company.

Senator COBURN. OK. Let me just followup with kind of a statement and then get a reaction from you, and I will finish, Mr. Chairman.

This is a big fight about winners and losers. You know, we are not children here. We know there are high stakes here. The question is: How do we strike the balance that protects intellectual property in the right amount and does not dumb down our ability to create innovation because we have protected it in a balanced way? How do we strike that balance? I have some trouble with this bill. You can obviously tell by the questions I am asking because I do not think we have struck that balance. I would like your comments, very honest and open comments. We have got to find that balance for the best of our country and to appease, try to appease everybody so that everybody has a square shot. Where is that? How do we do that? Any comments?

Ms. DOYLE. Senator Coburn, I would love to address that and in doing so try and address some of the concerns and fears that have been—

Senator CARDIN. Can I interrupt you just for one moment? I know that Mr. Bernstein needed to leave. If you want to make a comment first, we will give you that opportunity.

Mr. BERNSTEIN. Yes, sure. Thank you.

First of all, you know, we sympathize, Ms. Doyle and Mr. Squires, we sympathize with your position. You know, we acknowledge at InterDigital that there are abusers of the current legal system. I mean, there are abusers of every system, you know, in this country and outside this country. But the current provisions of this bill are severely going to impact legitimate research, development, and innovative businesses in the United States. And, you know, we have had some fairly robust decisions coming out of the Supreme Court. I do not, frankly, think it has been long enough to really tell the outcome and how it is going to affect various industries. And I would just caution Congress and others about having sweeping reforms at this point in time, and not just—maybe doing it piecemeal and stepping back at some point in time.

Senator COBURN. Ms. Doyle?

Ms. DOYLE. Thank you, Senator. I would like to also indicate that we sympathize and empathize with others in business in this country and have no intention of undercutting the efficacy of drugs or the likelihood that they will come to market or anything of the sort. However, every day we receive what are called patent assertions over the threshold, and the first thing that the people that we talk to, the asserters we talk to, ask for is a percentage of this entire device, which is priced at between $400 and $500 to our end-user customer, the carrier customer.

The most expensive piece of componentry in this device other than the licensing is $30, and I believe the market, the free market, determines the value of that component and what it delivers to this device. And it is my belief that if a patent reads on that

component, then the reasonable royalty should be charged against that component, say $30, and that all of the factors in Georgia Pacific could be used to sort out exactly what percentage of that $30 is due to the inventor that did something innovative about, say, the screen. But it is the screen that one has to look to, not the entire device. That would avoid situations like, in our case, someone with a chip patent coming to us indicating that they will not speak to our supplier on the subject, even though we have an indemnity relationship with our supplier. They will speak only to us, and there is only one reason: because they are looking for a percentage against this, the entire device.

So I have to say that there are abuses. They are severe. They happen all the time.

Senator COBURN. There is a balance, though, we have to—

Ms. DOYLE. And there is a balance that needs to be struck.

Senator COBURN. Mr. Squires?

Mr. SQUIRES. Thank you, Senator. I would submit that mature industries with patents have procedural tools that exist that are just not available for industries that are new to patents, such as technology, software, financial services, and some of the new drivers of the economy. Therefore, I think Congress can strike that balance by some of the procedures in the bill. Particularly right now there is an "open forever" window, if you will. It is called "reexamination." But to thread the eye of the needle on reexamination, you have to have a printed publication or an issued patent. That kind of prior art does not exist in the other industries to any great extent. Therefore, an opposition window and having a second window which is triggered on notice would be a meaningful way to get prior art into the system and also engage the expert agency who can decide that matter.

As far as apportionment of damages goes, the Patent Office makes determinations as to where the scope of rights should be granted based upon the prior art, and what is obvious, in its determinations. There is no reason that the same cannot be done in terms of the economic commercial value of that. And the courts should engage, and they can start to hear and fulfill their Daubert principles, economic theories to help get at that. In fact, I just saw in the Wall Street Journal the other day that there is an exchange-traded fund that aggregates patents and lets an investor have exposure to that based upon valuations.

And, finally, because issues of claim construction are the most important and most confusing often in the lower court and there is de novo review, interlocutory appeal might be the right calibration to get those issues decided early and resolved.

Senator COBURN. Thank you.

Ms. Biberstein?

Ms. BIBERSTEIN. I do not personally believe this is—sometimes this is described as a battle between, you know, the drug companies and the IT companies. I do not believe that is true at all. I think we all have a common goal, and that is to improve the quality of patents, to discourage bad patents from being asserted, to put processes in place to make this system hum, to make it work really well for everybody. I think a lot of the things we have talked about and agree about will do that. I think that, you know, repealing in-

equitable conduct to encourage prior art coming in early, post-grant opposition process early on, it may not get everyone everything they want, but we are combining these factors, we are building here. And so by building, we are creating, you know, a better system, and we cannot always, you know, get everything that will address our immediate concern. But if we put things like, you know, pay if you lose in place, then, again, all these factors are going to be additive and help us without discouraging innovation, across the industries. I mean, Palm benefits from the smaller companies innovating as well as the rest of us do. So I think we are there, I do, While safe-guarding these key issues on which there is not consensus.

Senator COBURN. You know, there is a theory in medicine: First, do no harm.

Thank you all.

Senator CARDIN. Let me thank the witnesses. Last year, I was looking at the patent issues from a little bit different perspective. I was on the Ways and Means Committee in the House and the ranking Democrat on Trade, and I remember trying to talk to some of our trading partners and some of our countries in which we were disappointed with their enforcement of patent laws and heard rather consistently about the differences that the U.S. patent laws internationally with other countries.

So I would just like to get your perspective, if you have one, as to how important it is for us to look at what is happening internationally in the patent laws. Our patent laws are not consistent with a lot of other countries, and whether that is an important factor that this Committee should be considering in trying to bring some degree of uniformity as to patent laws, particularly with our major trading partners.

Ms. DOYLE. Senator Cardin, I am not an expert in this area, but in the first paragraph of my remarks this morning, I did indicate that I believe that we are currently at a competitive disadvantage to our competitors elsewhere in the world because our system imposes effectively a larger tax on doing business than others do. So, for example, in China, while it is now possible to get patents, it is not possible to enforce them. So if a Chinese company, for example, has U.S. patents, which they can enforce here, they have an advantage over a U.S. company that may have Chinese patents but cannot enforce them abroad. That is probably the one example that I am most familiar with that causes us quite a bit of concern.

Senator CARDIN. Of course, that does not really deal with the uniformity of the laws, more so than the enforcement, effective enforcement in China, which is certainly -I have heard lots of complaints about that. It joins the list of concerns we have about China as far as enforcing trading provisions.

Ms. DOYLE. Right. I think uniformity of laws in general is probably a good goal. But without knowing more than I do about international patent regulation, I do not think I am in a position to—

Senator CARDIN. I have heard Goldman Sachs does do a little bit of international business here, so maybe I can get a view from—

Mr. SQUIRES. On occasion, Senator, yes. There is much, much good in existing patent laws that promote innovation and economic expansion in every area of the U.S. economy, and the provisions in

the bill we think can make it better. One area that is clearly different than European systems and U.S. systems is U.S.-style litigation. A lot of that is as a result that is speculative. People have procedures that they come in armed with, including presumption of validity, which is warranted, but in cases where there are developing industries or lack of prior art that gets applied in the Patent Office, questionable as to whether they are overarmed coming into litigation.

But at the end of the day, U.S.-style litigation drains resources from really where they should be going, and that is back into R&D work that is being done that then could be patented. So it is a way that if there is appropriate calibrations put on it—and I think the bill contains those—litigation costs can be more manageable, risks can be identified, and those dollars can go back into innovation where they belong and patents on innovation that help American competitiveness.

One other difference I would point out is that the European—where I think our system is clearly better and should continue on that track is Europe requires a technical effect of some nondescript manner in order to confer jurisdiction on patentability. It has turned into a "they know it when they see it" type of regime. Here the doors to the Patent Office are much more wide open, taking innovations in all stripes and awarding patents on any process—new and useful—any method, system of manufacture, machine, or composition of matter, and that I think has fueled U.S. economic growth. And I have seen articles where people worry about Europe's competitiveness versus the U.S. because of these type of strictures.

Senator CARDIN. Is there a particular country that has a model on enforcement and law that we should be looking at?

Mr. SQUIRES. I think our model is fine. I think there is just some fine-tuning that needs to happen. For example, engage the patent agency, who is expert at making claim determinations based upon prior art, in a process where it can be available to more people, such as opposition. Right now it is all or nothing in court. A patent is granted. You have a presumption of validity. It either falls or is enforced.

In an opposition practice, and including reexamination practice, there is a third way, and that is that the claims can survive, they can be gerrymandered around prior art, and the patents still issue but in a scope that is more reasonable to what has been out there in the prior art.

So that type of calibration I think can go a long way and provide better patents at the end of the day, which the public gets a right to after the expiration, and they have a clear definition of what that is.

Senator CARDIN. Thank you.

Ms. BIBERSTEIN. I might just add that I started my career in patents in Europe, so I learned inventive step before I learned nonobvious. And this was in the early 1990's, and what I can remark on perhaps is what I think has been remarkable progress of cooperation between the United States and other countries in Europe and around the world in the patent area that really did not exist a decade and a half ago.

So I think that we have seen remarkable progress and will probably continue to see more. I think changing to a first-to-file standard in the United States will also be helpful in that respect.

Senator CARDIN. Thank you. Well, once again, let me thank all of you for your appearance here today. This is a subject that, of course, this Committee has had under consideration for many years. It is one in which I am sure we are going to be receiving a lot more attention during this Congress, and today's hearing certainly enhanced our ability to deal with this very important subject for this country.

The hearing will stand adjourned.

[Whereupon, at 11:55 a.m., the Committee was adjourned.]

[Questions and answers and submissions for the record follow.]

QUESTIONS AND ANSWERS

June 28, 2007

Hearing before the
Senate Judiciary Committee
on
"Patent Reform: The Future of American Innovation"

Responses of Mr. Bruce G. Bernstein to Post-Hearing Written Questions
Chief Intellectual Property and Licensing Officer
InterDigital Communications Corporation
King of Prussia, PA

I. Post-Hearing Written Questions Submitted by Senator Chuck Grassley:

1. In your testimony, you expressed concerns with how S. 1145 deals with the apportionment of damages issue. Do you disagree with the concerns expressed by other hearing witnesses that recent court decisions have resulted in inappropriately inflated damages?

While InterDigital cannot speak to the appropriateness of every damage award in every patent case, we believe that claims of excessive patent damages are grossly exaggerated. The fact that a patent infringement case has reached the damages stage is testament both to strength and commercial significance of the patent, as well as the commercial severity of the infringing activity. In other words, these are high stakes cases, and sizeable damage awards are to be expected. Indeed, a pattern of trivial damage awards would signal the kind of systemic weakness that we see in foreign IP regimes where patent rights are not adequately respected or enforced.

With that said, a recent study by PWC shows that the median in patent damage awards has leveled off in the past four years, with a median in 2006 of approximately $9 million. Moreover, the few cases that have significantly exceeded this amount - the $1.5 billion verdict in *Alcatel-Lucent* being the most notable example - cannot be condemned purely on the basis of the ultimate dollar figure. In *Alcatel-Lucent*, for example, the $1.5 billion verdict was attributable in significant part to the inclusion of foreign sales in the damage award, which will likely now be disallowed in view of the Supreme Court's decision in the *Microsoft/AT&T* case.

In a detailed analysis of allegedly "inflated" damages awards, former AIPLA president William Rooklidge found that none of the cases supports mandatory apportionment or any other legislative change to our well-established system for calculating royalty-based damages. In analyzing the *Alcatel-Lucent* case, Rooklidge notes that the jury's decision to base royalties on the value of the computer system (and not on the infringed patented feature) was due to a potential error in the court's instruction to the jury, and not to a deficiency in the *Georgia Pacific* principles that have guided reasonable royalty calculations for almost four decades. Specifically, the district court in *Alcatel-Lucent* appears to have misstated the "entire market value rule." As Rooklidge notes, an erroneous jury instruction is reversible error, which can and should be dealt with through the judicial appeals process, without the need for legislation.

As for the other cases cited by advocates of mandatory apportionment, Rooklidge's analysis indicates that only one other case - an unpublished and thus non-precedential opinion by the Federal Circuit - arguably misapplied the entire market value rule. The remaining cases either (i) applied the correct formulation of the entire market value rule to a debatable factual finding that the patented invention was the basis for customer demand; (ii) involved expansion of the royalty base to include convoyed sales, consistent with the entire market value rule; (iii) applied the entire market value rule because the infringer had failed to provide evidence supporting damages apportionment; or (iv) based damages on a "surrogate" royalty -- i.e., something other than the value of the infringing product or process -- and thus did not involve application of the entire market value rule or apportionment.

In short, despite rhetoric to the contrary, neither the *Alcatel-Lucent* case nor any of the other cases cited by apportionment advocates signifies the kind of systemic failure or abuse that would warrant sweeping legislative reform. Our judicial appellate process is best-suited to address and correct the kind of error made by the *Alcatel-Lucent* court, without unnecessary congressional intervention. Nevertheless, if legislation is inevitable, a far more sensible approach would be to instruct the Federal Circuit to develop model jury instructions on the proper application of *Georgia-Pacific* and the entire market value rule when calculating damages based on a reasonable royalty.

Do you believe that any change should be made to current law dealing with apportionment of damages?

No, InterDigital supports the existing market-based standard for deciding damages, as detailed in the landmark *Georgia-Pacific* decision. This well-established standard gives proper deference to established licensing terms and, where a licensing history does not exist, allows courts and juries the flexibility and discretion needed to decide a fair royalty rate. Maintaining that flexibility is critical for small companies and licensors to be able to protect their inventions against larger, better-financed competitors.

What would be the impact on your company if the provisions as currently drafted in S. 1145 dealing with apportionment of damages were enacted into law?

Under the Senate bill, a court must ensure that a reasonable royalty "is applied only to that economic value properly attributable to the patent's specific contribution over the prior art," except where a patent has been shown to be "the predominant basis for market demand for an infringing product or process." Thus, in virtually every patent case involving complex systems, this mandatory apportionment of damages would be applied above all other factors that might otherwise influence the determination of a reasonable royalty, including a patentee's history of negotiated royalty rates and other licensing terms. Although intended to guard against allegedly inflated damage awards, this mandatory apportionment test would represent a dramatic departure from the market-based principles that currently govern damages calculations. Even worse, it would result in unpredictable and artificially low damages awards for the majority of patents, no matter how inherently valuable they might be.

For innovative companies like InterDigital, mandatory apportionment would encourage free-riders and even existing licensees to risk litigation rather than pay, or continue paying, a market-

negotiated licensing fee. As a result, it would undermine the market-based licensing negotiations between the inventor and patent user that have driven our nation's innovation dynamie for more than 200 years. No longer will the market be the arbiter of our technology's value; instead, a paid expert and court will be. There will be very little downside to "rolling the dice" and litigating before taking a license.

Significantly, Congress expressly and resoundingly rejected mandatory "apportionment" in 1946 when it adopted the existing statutory standard for calculating damages, codified in Section 284 of the Patent Act. During hearings on the issue, Congress and other experts noted that apportionment was an overly complex and wholly unworkable test, resulting in excessive litigation costs, extreme delays and unfair damages awards for all parties. One patent expert described mandatory apportionment accountings as "the great evil that has grown up around the patent system." And another expert observed that many cases requiring apportionment had "run from 10 to 20 years, [...] and others I have known have gone on for 20 years. Some now are running that have been running 20 years and all the people that started in the [apportionment] accounting are dead." To revert back to an apportionment standard that was universally condemned more than 60 years ago would represent a major step backwards for our patent system -- the very antithesis of patent "reform."

2. S. 1145 extends additional rule-making authority to the Director of the USPTO. Do you believe that Congress is ceding excessive authority to the executive branch to create or make patent law? Can you elaborate on why this expansion of rule-making authority at the USPTO is problematic for your company?

Yes -I nterDigital believes that the proposed broad grant of substantive rulemaking authority is both historically unprecedented and imprudent, given the constitutionally protected property rights at stake and the vital importance of patents to U.S. economic prosperity. The Senate bill would empower the Director of the USPTO with unprecedented and expansive substantive rulemaking authority, which would encompass any "rules, regulations, and orders that the Director determines appropriate to carry out the provisions of [the Patent Act] or any other law applicable to the [USPTO] or that the Director determines necessary to govern the operation and organization of the Office." This rulemaking authority would pave the way for well-intentioned but inadvisable regulatory changes, including severe restrictions on continuation and claim practice that are opposed by the overwhelming majority of patent holders. Significantly, even the Department of Commerce voiced concerns about "unbounded discretion" in its letter to Chairman Berman and recommended against an overly broad grant of rulemaking authority.

Because of various limits on its jurisdiction, the USPTO lacks meaningful exposure to the commercial and economic complexities of patents post-issuance, and thus does not possess the breadth of perspective and experience to legislate effectively in substantive and critical areas of patent prosecution. As evidence of this, the USPTO has recently proposed significant regulatory changes that would negatively impact InterDigital and other innovators, including unprecedented limitations on continuation and claims practice. The fact that the USPTO has hastily finalized these new rules -- without disclosing its underlying studies and despite overwhelming opposition among patent holders -- confirms that its rulemaking procedures are ill-equipped to conduct administrative patent reform with the necessary deliberation and transparency.

3. In your opinion, does S. 1145 improve the quality of patents? How would you address the problem of patents of questionable quality?

No - Unfortunately, S. 1145 does not address the root cause of poor patent quality, namely inadequate patent examination resources and procedures. Patent quality is best achieved by pre-grant measures that provide examiners with the resources, training and information needed to properly assess whether an invention is, in fact, novel, non-obvious and useful. A recent study by the National Research Council also demonstrates that increases in patent examination resources yield important reductions in post-grant litigation, further underscoring the critical importance of such measures. To its credit, the USPTO has taken several steps in recent years to improve pre-grant quality, including by the hiring of thousands of new examiners and strengthening of its training programs. The results are promising. In December 2006, the USPTO reported a significant decrease in the patent allowance rate to a record low of 54 percent -- a dramatic drop from the 2000 rate of 70 percent. In addition, the USPTO in 2006 achieved its lowest error rate in 20 years -- 3.5 percent. Of course, to maintain this trend, it is imperative that the USPTO continue to receive the resources necessary to evaluate an escalating number of patent applications. ***To that end, what is most needed is legislation to permanently end patent fee diversion.***

In that same vein, increased USPTO resources will yield quality gains only if examiners have the information and incentives to recognize and reject claims for obvious or non-novel inventions. InterDigital thus supports measures that would foster an environment of cooperation between patent examiners and applicants and increase the prior art available to examiners. These include, for example, proposals to increase third-party submissions and mandate universal publication of all patent applications. At the same time, the USPTO should reconsider policies that potentially encourage patent examiners to issue questionable patents, including quotas or other benchmarks that tie compensation to the number of applications processed.

Does S. 1145 make the patent process more certain and predictable?

No - To the contrary, mandatory apportionment, post-grant opposition and broad USPTO rulemaking authority would diminish the value and enforceability of patent rights and inject considerable uncertainty and unpredictability into our patent process. As a result, such measures would encourage frivolous and expensive litigation.

What is your proposal for a less costly and efficient alternative to litigation?

As noted above, measures that would improve pre-grant patent quality are the most effective safeguards against frivolous post-issuance litigation. Similarly, strong and predictable patent rights are a powerful and necessary deterrent against infringement and wasteful litigation. With that said, InterDigital recognizes the need for a fair, robust and affordable post-grant reexamination procedure to challenge administratively the small percentage of patents that are erroneously granted each year. However, such procedures must also strive to preserve the value and enforceability of the vast majority of meritorious patents. With these principles in mind, InterDigital supports carefully-tailored improvements to the existing system of *inter partes*

reexamination in lieu of a new, duplicative and potentially burdensome post-grant opposition process.

The current administrative system of *inter partes* reexamination, introduced in 1999, is designed as a relatively quick and low-cost alternative to litigation in cases where invalidity can be established on the basis of published prior art. As its name suggests, reexamination requires the examiner to take a fresh look at a patent claim and, on the basis of prior patents and printed publications, determine whether the claim fails to satisfy the statutory conditions of patentability. A challenger may request reexamination throughout the life of the patent, provided that it demonstrates a substantial new question of patentability. However, because an unsuccessful challenger is generally estopped from asserting invalidity in a subsequent civil trial or *inter partes* proceeding, patentees are effectively shielded from the risk of abusive or duplicative reexamination. As with existing judicial procedures, this system of *inter partes* reexamination attempts to create an effective check on patent quality without diminishing the value and stability of patent rights generally.

In contrast, the proposed post-grant opposition system would combine aspects of a judicial and administrative reexamination process, but eliminate or substantially dilute existing safeguards that have effectively discouraged misuse of the system. In the process, it would create a quasi-judicial system of administrative litigation that heavily tips the balance in favor of the challenger's interests; increases incentives to litigate; and disproportionately shifts litigation costs to the patent owner. As a result, the proposed post-grant opposition system would expose emerging companies to unmeritorious or commercially motivated challenges by deep-pocketed rivals. It also unfairly (and unnecessarily) restricts the patent holder's ability to amend and adjust the scope of a patent in light of newly discovered prior art.

4. Chief Judge Paul Michel, of the U.S. Court of Appeals for the Federal Circuit, in letters to the House and Senate dated May 3, 2007 and June 7, 2007 expressed a number of concerns with the proposed patent reform bill, including apportionment of damages and interlocutory appeals. Could you discuss in detail how the problems identified by Judge Michel would impact your industry?

InterDigital shares the concerns expressed by Chief Judge Michel that (i) a novel and complex mandatory apportionment standard is unnecessary and would greatly increase the cost, delays and uncertainty of patent infringement litigation; and (ii) claim construction appeals could lead to significant inefficiencies, as well as increased litigation delays and costs at both the trial and appellate levels.

Mandatory apportionment and interlocutory appeals would be particularly damaging to small innovative firms, such as InterDigital, but also to the large and growing community of independent inventors, research firms and universities that can ill afford the added litigation costs, delays and uncertainty that such measures would engender. The threat of meaningful damages is often the only leverage that a small patentee possesses to secure a licensing agreement with a corporate giant, and the proposed mandatory apportionment standard would all but eliminate that leverage. The proposed interlocutory appeals measure would similarly benefit

deep pocket manufacturers to the detriment of small innovators, providing large infringers with yet another tool to complicate, delay and prolong patent litigation.

5. In your opinion, does S. 1145 encourage innovation and investment that businesses need in order to flourish? How?

No - Although S. 1145 does include some helpful reforms, including expansion of third party prior art submissions, other aspects of the bill - namely, mandatory apportionment of damages, post-grant opposition and broad USPTO rulemaking authority - would so weaken our patent system as to overshadow and eliminate any pro-innovation effects of the legislative package.

The premise of these so-called reforms is that the patent system is broken; the market is flooded with poor quality patents that were erroneously granted; and that patent plaintiffs are predominantly speculators who abuse the system to extract inflated settlements and judgments from large, established manufacturers. In InterDigital's view, claims of this type are grossly exaggerated and dangerous in their potential impact on our patent system. To recklessly impugn the overall quality of America's patent portfolio is to denigrate the contribution of our most innovative companies, a growing percentage of which are licensing-based, patent-rich firms like InterDigital. And to diminish the value and enforceability of all patent rights is to destabilize the very foundation of our knowledge-based economy.

6. What is the impact of the bill on the American consumer? How does it help of hurt the American public?

By devaluing patent rights, S. 1145 will ultimately reduce incentives to innovate and, in turn, slow the pace of technological development and competition. Patent-based innovation not only ensures that American consumers are provided an ever-expanding array of new and improved products, it also pressures existing manufacturers to lower prices, diversify and improve their own product offerings, and, in general, to respond more effectively to consumer demands.

Moreover, in today's knowledge-based economy, patents are vital to America's ability to generate the kind of skilled, well-paying jobs that ensure a high standard of living. Significantly, the economic promise of patent-based innovation is available to every state and community in the country, whether rural or urban, agricultural or industrial. Indeed, as we continue to cede our traditional manufacturing base to foreign markets, it is America's IP-based industries that will allow struggling local economies to find new life.

By weakening the enforceability and predictability of patent rights, S. 1145 would disrupt this cycle of innovation, competition and economic growth that distinguishes America from the rest of the world. Our consumers will pay the ultimate price in the form of less product choice, higher prices and reduced job growth and prosperity.

II.Post-Hearing Written Questions Submitted by Senator Tom Coburn:

1. Would the industry you represent object to language being added to S. 1145 which would permanently end the practice of Congressional fee diversion from USPTO? If so, why?

InterDigital strongly supports legislation to permanently end fee diversion. Indeed, the Innovation Alliance, our coalition of diverse entrepreneurial firms, views this measure as the most significant and beneficial reform that Congress could undertake to improve patent quality and reduce the threat of frivolous litigation.

Patent quality is best achieved by pre-grant measures that provide examiners with the resources, training and information needed to properly assess whether an invention is, in fact, novel, non-obvious and useful. A recent study by the National Research Council also demonstrates that increases in patent examination resources yield important reductions in post-grant litigation, further underscoring the critical importance of such measures. To its credit, the USPTO has taken several steps in recent years to improve pre-grant quality, including by the hiring of thousands of new examiners and strengthening of its training programs. The results are promising. In December 2006, the USPTO reported a significant decrease in the patent allowance rate to a record low of 54 percent -- a dramatic drop from the 2000 rate of 70 percent. In addition, the USPTO in 2006 achieved its lowest error rate in 20 years -- 3.5 percent. However, to maintain this trend, it is imperative that the USPTO continue to receive the resources necessary to evaluate an escalating number of patent applications.

2. The US Supreme Court has ruled on several recent cases that change the current environment for patent law, including the balance of power between patent owners and users and related protections for intellectual property. To what extent do such cases address the concerns that originally led to the call for patent reform legislation years ago?

The Supreme Court's recent patent decisions have fundamentally shifted the balance of power between patent holders and patent users, and have made it more difficult to satisfy the statutory requirements for patent protection. As a result, these cases directly address, and arguably satisfy, the concerns that originally led to the call for patent reform legislation, namely fears that patent holders wielded too much power over users, and that the existing standards of patentability were insufficiently rigorous to weed out patents of questionable quality and validity.

For example, since the Supreme Court's decision in *eBay v. MercExchange*, courts are increasingly reluctant to award permanent injunctions to patent holders, unless the infringement undermines competition for the patentee's product. In cases where a patent holder licenses the right to practice its patented technology to others, but does not manufacture or practice the technology itself, most courts have refused to award permanent injunctive relief. As a result, many innovative firms will be forced to permit ongoing use of their patented technologies pursuant to a court-imposed compulsory license (without the benefit of important standard non-royalty license terms such as confidentiality) and a court-dictated royalty. In the post-*eBay* world, it is thus critically important that Congress preserve the ability of patent holders to obtain adequate damages for patent infringement, as in many cases this will be the only viable remedy against infringers.

2a. Wouldn't it be wise for Congress to consider reshaping S. 1145 to focus on improving patent quality and wait and see whether, and to what extent, these Supreme Court decisions rectify the perceived imbalances and quality concerns that led to calls for patent reform legislation?

Yes - Congress should take pause before adopting unprecedented reforms that would further weaken the entire patent system; favor the interests of large corporations to the detriment of smaller innovators and licensing-based business models; and ultimately jeopardize America's competitive advantage in today's knowledge-based economy. Mandatory apportionment would serve no purpose other than to protect the interests of large manufacturers against infringement claims, no matter how meritorious. Indeed, when coupled with the heightened *eBay* standard for injunctive relief, the proposed mandatory apportionment amendment would jeopardize the very existence of smaller firms with an innovation and licensing based business model. Similarly, a post-grant opposition system, unless accompanied by adequate resources and safeguards, would subject patent owners to unwarranted delays, costs, uncertainty and harassment, without offsetting benefits to patent quality. If the United States is to remain the world's leading innovation-based economy, we cannot destabilize and weaken patent rights with measures of this type.

3. The strict apportionment language limiting the potential calculation of any damage awards would allow a patent infringer to know up front the cost of infringement, which can be weighed against the cost of legally licensing the patented product or process. Doesn't this diminish the cost of infringement and make infringement just another business cost decision?

Yes - In fact, many manufacturers already treat patent infringement as a cost of doing business. The megatechs advocating mandatory apportionment are particularly notorious for this practice, rushing products to market without clearing third party patents and assuming that most small patentees will lack the financial wherewithal to enforce their rights. Mandatory apportionment would simply encourage this practice by making patent infringement even less expensive. For innovative companies like InterDigital, mandatory apportionment would encourage free-riders and even existing licensees to risk litigation rather than pay, or continue paying, a market-negotiated licensing fee. There will be very little downside to "rolling the dice" and litigating before taking a license.

4. What evidence is there of a patent litigation crisis? Please provide objective data that shows the amount of patent litigation in the U.S., the number of patent lawsuits filed in each of the past three years, and the amount of litigation as a percentage of patents issued and as a percentage of R&D spending.

InterDigital is unaware of any credible evidence that patent litigation is more prevalent or prone to abuse than other high-stakes commercial litigation. Indeed, the Administrative Office of the Courts, the administrative arm of the Federal Judiciary Branch, reported modest increases in patent litigation over the past five years -- i.e., a 12 percent increase in cases filed between 2001 and 2006 -- and an actual decrease in patent cases since the peak year of 2004. This increase is

attributable to a range of factors, most notably the growing number of patents issued in recent years and their relative commercial significance to our knowledge-based economy. Significantly, the number of trademark and copyright cases filed throughout this period has consistently exceeded the number of patent cases.

5. A few recent cases have fueled the argument that legislation is needed to prevent "windfall" or very large licensing fees or damage awards. Please provide objective data that shows the dollar amount of license fees paid as a percentage of GDP for each of the past three years.

Unfortunately, InterDigital does not have access to the requested GDP data. However, in a global economy that is increasingly dependent on knowledge-based assets, America's licensing revenue is far more indicative of its economic strength and competitiveness than a sign of inflated settlements. The licensing fees generated by InterDigital and other innovative firms are used to fund the cycle of research, development and commercialization that is so critical to America's economic leadership. Moreover, the fact that we are able to negotiate licensing fees with otherwise recalcitrant manufacturers demonstrates that our patent system is healthy, strong and working as America's founding fathers intended.

InterDigital also takes issue with claims that large licensing fees or damages signify an imbalance in our patent system. While InterDigital cannot speak to the appropriateness of every damage award in every patent case, we believe that claims of excessive patent damages are grossly exaggerated. The fact that a patent infringement case has reached the damages stage is testament both to strength and commercial significance of the patent, as well as the commercial severity of the infringing activity. In other words, these are high stakes cases, and sizeable damage awards are to be expected. Indeed, a pattern of trivial damage awards would signal the kind of systemic weakness that we see in foreign IP regimes where patent rights are not adequately respected or enforced.

With that said, a recent study by PWC shows that the median in patent damage awards has leveled off in the past four years, with a median in 2006 of approximately $9 million. Moreover, the few cases that have significantly exceeded this amount - the $1.5 billion verdict in *Alcatel-Lucent* being the most notable example - cannot be condemned purely on the basis of the ultimate dollar figure. In *Alcatel-Lucent*, for example, the $1.5 billion verdict was attributable in significant part to the inclusion of foreign sales in the damages award, which will likely now be disallowed in view of the Supreme Court's decision in the *Microsoft/AT&T* case.

In a detailed analysis of allegedly "inflated" damages awards, former AIPLA president William Rooklidge found that none of the cases supports mandatory apportionment or any other legislative change to our well-established system for calculating royalty-based damages. In analyzing the *Alcatel-Lucent* case, Rooklidge notes that the jury's decision to base royalties on the value of the computer system (and not on the infringed patented feature) was due to a potential error in the court's instruction to the jury, and not to a deficiency in the *Georgia Pacific* principles that have guided reasonable royalty calculations for almost four decades. Specifically, the district court in *Alcatel-Lucent* appears to have misstated the "entire market value rule." As

Rooklidge notes, an erroneous jury instruction is reversible error, which can and should be dealt with through the judicial appeals process, without the need for legislation.

As for the other cases cited by advocates of mandatory apportionment, Rooklidge's analysis indicates that only one other case - an unpublished and thus non-precedential opinion by the Federal Circuit - arguably misapplied the entire market value rule. The remaining cases either (i) applied the correct formulation of the entire market value rule to a debatable factual finding that the patented invention was the basis for customer demand; (ii) involved expansion of the royalty base to include convoyed sales, consistent with the entire market value rule; (iii) applied the entire market value rule because the infringer had failed to provide evidence supporting damages apportionment; or (iv) based damages on a "surrogate" royalty -- i.e., something other than the value of the infringing product or process -- and thus did not involve application of the entire market value rule or apportionment.

In short, despite rhetoric to the contrary, neither the *Alcatel-Lucent* case nor any of the other cases cited by apportionment advocates signifies the kind of systemic failure or abuse that would warrant sweeping legislative reform. Our judicial appellate process is best-suited to address and correct the kind of error made by the *Alcatel-Lucent* court, without unnecessary congressional intervention. Nevertheless, if legislation is inevitable, a far more sensible approach would be to instruct the Federal Circuit to develop model jury instructions on the proper application of *Georgia-Pacific* and the entire market value rule when calculating damages based on a reasonable royalty.

6. S. 3818, the precursor to S. 1145, included provisions on "loser pays" for patent litigation attorney fees. Should such language be returned to the bill to help address allegations related to speculative litigation in the patent system?

InterDigital would consider supporting a "loser pays" provision, which unlike mandatory apportionment and post-grant opposition could, in fact, reduce litigation. However, we would first need to consider carefully the impact of such a measure on legitimate patent holders that are suffering real harm as a result of infringement.

A "loser pays" amendment could discourage frivolous suits and thus reduce the prevalence and cost of patent litigation. However, any such measure should be carefully tailored to provide appropriate exceptions for justifiable claims or positions asserted by the non-prevailing party. Otherwise, a loser pays provision could discourage small legitimate innovators from enforcing their patent rights in court, which may be the only means of securing fair compensation from a larger infringer.

III. <u>Post-Hearing Written Questions Submitted by Senator Specter, Ranking Member</u>:

1. Is it fair to say that the economic value that an invention adds to an infringing product is normally determined by comparing the infringing product to pre-existing competitive products, not to the "prior art"?

In general, the economic value that an invention adds to an infringing product should be determined by comparing the infringing product to non-infringing alternatives, which may, or

may not be, pre-existing. Nevertheless, it would be a mistake to legislate any one formula for evaluating a patent or calculating damages. The diversity and complexity of patented technologies demands the kind of flexible, market-based approach to damages reflected in the seminal case of *Georgia-Pacific*. The *Georgia-Pacific* court identified 15 factors that courts had historically deemed relevant in determining a reasonable royalty, the first and most important being a history of "licensing proving or tending to prove an established royalty." Moreover, it explicitly rejected any kind of mandatory formula or test in deciding the relevance or relative weight of any one factor, other than an established royalty:

> The drawing of proper conclusions from conflicting evidence concerning the amount of a reasonable royalty has been said to call "for the exercise of judicial discretion by the District Court." *General Motors Corp. v. Dailey, 93 F.2d 938, 942 (6th Cir. 1937).* Both sides agree that this Court has a broad range of judgment in evaluating the relevant factors. In the present case there is a multiplicity of inter-penetrating factors bearing upon the amount of a reasonable royalty. ***But there is no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent.*** In discharging its responsibility as fact finder, the Court has attempted to exercise a discriminating judgment reflecting its ultimate appraisal of all pertinent factors in the context of the credible evidence. (emphasis added)

This flexible, market-based process for calculating a reasonable royalty has been applied in thousands of patent cases. Congress should not depart from this well-established methodology, particularly when the proposed apportionment amendments appear to ignore hard-won lessons about the dangers of rigid damages rules and formulas.

Indeed, by resurrecting a mandatory apportionment test (particularly one based on a novel and complex "prior art" standard), Congress risks repeating mistakes of the past and subjecting patentees and infringers to the same uncertainty, excessive litigation costs and unfair damage awards that ultimately led to the flexible, market-based damages standard codified in Section 284. Congress expressly and resoundingly rejected mandatory "apportionment" in 1946 when it adopted the existing statutory standard for calculating damages. During hearings on the issue, Congress and other experts noted that apportionment was an overly complex and wholly unworkable test, resulting in excessive litigation costs, extreme delays and unfair damages awards for all parties. One patent expert described mandatory apportionment accountings as "the great evil that has grown up around the patent system." And another expert observed that many cases requiring apportionment had "run from 10 to 20 years, [...] and others I have known have gone on for 20 years. Some now are running that have been running 20 years and all the people that started in the [apportionment] accounting are dead." To revert back to an apportionment standard that was universally condemned more than 60 years ago would represent a major step backwards for our patent system -- the very antithesis of patent "reform."

2. Would repealing inter partes reexamination and third party initiated ex parte reexaminations address some of your concerns about the duplicative nature of the post-grant review process in S. 1145?

Only in part - InterDigital supports a single administrative post-issuance process for challenging a patent's validity. However, we encourage Congress to consider carefully-tailored improvements to the existing system of *inter partes* reexamination in lieu of a new, duplicative and potentially burdensome post-grant opposition process.

The current administrative system of *inter partes* reexamination, introduced in 1999, is designed as a relatively quick and low-cost alternative to litigation in cases where invalidity can be established on the basis of published prior art. As its name suggests, reexamination requires the examiner to take a fresh look at a patent claim and, on the basis of prior patents and printed publications, determine whether the claim fails to satisfy the statutory conditions of patentability. A challenger may request reexamination throughout the life of the patent, provided that it demonstrates a substantial new question of patentability. However, because an unsuccessful challenger is generally estopped from asserting invalidity in a subsequent civil trial or *inter partes* proceeding, patentees are effectively shielded from the risk of abusive or duplicative reexamination. As with existing judicial procedures, this system of *inter partes* reexamination attempts to create an effective check on patent quality without diminishing the value and stability of patent rights generally.

In contrast, the proposed post-grant opposition system would combine aspects of a judicial and administrative reexamination process, but eliminate or substantially dilute existing safeguards, including a robust estoppel effect, that have effectively discouraged misuse of the system. In the process, it would create a quasi-judicial system of administrative litigation that heavily tips the balance in favor of the challenger's interests; increases incentives to litigate; and disproportionately shifts litigation costs to the patent owner.

3. Would raising the burden of proof in S. 1145 in reviews initiated after the first window has closed to a "clear and convincing" standard address some of your concerns regarding the new post-grant review process?

Although a helpful step, the proposed post-grant opposition procedure would still lack other necessary safeguards to protect the interests of patent holders, including, for example, a robust estoppel effect, a rigorous standard for invoking post-grant opposition challenges, and the right to make any necessary amendments to the patent claims in order to arrive at the proper scope of protection for the claimed invention.M oreover, InterDigital is concerned that, even with this improvement, the USPTO would lack the resources to administer the proposed post-grant opposition system. Indeed, the Department of Commerce acknowledged as much in its May 2007 letter to the House Subcommittee on Courts, the Internet, and Intellectual Property.

InterDigital supports a single post-issuance process for challenging a patent's validity administratively and further believes that the existing *inter partes* reexamination procedure more effectively protects patent holders against the threat of duplicative, expensive and abusive challenges than the proposed post-grant opposition system. As noted above, however,

InterDigital would support narrowly tailored improvements to the existing *inter partes* system in lieu of a post-grant opposition system.

4. Do the differing standards for review of questions of validity brought before the PTO and district courts present a potential forum-shopping problem for patent challenges?

Yes - A post-grant opposition system would combine aspects of a judicial and administrative reexamination process, but eliminate or substantially dilute existing safeguards that have effectively discouraged misuse oft he system. In the process, it would create a quasi-judicial system of administrative litigation that heavily tips the balance in favor of the challenger's interests. Unlike a civil proceeding, a post-grant opposition system would facilitate invalidation by eliminating the patent's presumption of validity and reducing significantly the challenger's evidentiary burden to mere preponderance of the evidence (compared with the rigorous clear and convincing standard that governs judicial invalidity challenges). Moreover, because the proposed opposition system would unnecessarily restrict the patentee's ability to amend its claims (in contrast with the flexible *inter partes* reexamination process), it would encourage outright invalidation of a patent that may simply require an adjustment in scope. This threat will be used aggressively by accused infringers against patent owners.

Patent owners will bear the brunt of these increased litigation costs, particularly if opposition is permitted for any issue of patentability throughout the life of the patent. In contrast, a competitor or free rider -relie ved of robust evidentiary requirements and the risk of estoppel -wo uld have every incentive to seek opposition, regardless of the patent's strength. Such a system would inevitably invite abuse, allowing corporate giants to misuse opposition litigation as a means of blocking patents that frustrate their business interests. Indeed, by stripping a patent holder of the protections that guard against baseless challenges, an open-ended opposition threat would cast a permanent cloud over a patent's legitimacy and enforceability.

5. Do you anticipate foreign companies, who may be reluctant to challenge patent validity in federal courts, to make heavy use of the new post-grant review process that S. 1145 seeks to create? If so, to what effect?

Yes - InterDigital's patented technologies are respected and highly valued, and our licensing history is extensive and well-established. Even still, we have every reason to believe that large users of our technologies - including U.S. and foreign manufacturers - will exploit post-grant opposition and expanded reexamination procedures to block our patents through endless administrative and judicial challenges. While most of these companies say they respect third party patent rights, their sole objective is to avoid, reduce, or at a minimum severely delay making any licensing payments. Mandatory apportionment of damages will provide yet another weapon to reduce the cost of infringement and diminish the value of our patents.

6. Would you expect there to be a substantial increase in the number of appeals filed with the Federal Circuit since there will be a right to appeal post grant review decisions? Would this increased case load be in addition to the interlocutory appeals of Markman decisions?

Yes -There is every reason to believe that the proposed post-grant opposition procedure would result in a large volume of challenges each year, which in turn would yield a substantial increase in appeals to the Federal Circuit. When combined with the proposed interlocutory appeals provision, the aggregate increase in Federal Circuit appeals could result in significant delays at the appellate level and increased litigation costs.

7. The National Academy of Sciences recommends amending the defense of unenforceability. There was language on this point in both the House and Senate patent reform bills considered during the 109th Congress but not this Congress. Do you believe that Congress should address the question of unenforceability.

InterDigital would support legislation to preserve but clarify the defense of inequitable conduct in a manner that reduces litigation costs and uncertainty.

8. Some have argued that the Court of Appeals for the Federal Circuit's application in *SanDisk Corp. v. STMicroelectronics Inc* of the Supreme Court's *MedImmune v. Genentech* decision significantly lowers the bar for when a party may bring a declaratory judgment action and will have the practical effect of stifling licensing negotiations. Do you agree with these statements? If so, do you think Congress should address this in the patent reform debate?

SanDisk and *MedImmune* lower the bar for declaratory judgment actions in a manner that will unquestionably complicate, and in some cases impede, licensing negotiations, particularly for small innovators that may lack the resources to fend off a declaratory judgment action. Although it may be too soon to know fully the effect of these decisions, it is possible that congressional action will be warranted.

Hearing before the
Senate Judiciary Committee
on
"Patent Reform: The Future of American Innovation"

Responses of Mr. Bruce G. Bernstein to Senator Kyl's Post-Hearing Written Questions

Chief Intellectual Property and Licensing Officer
InterDigital Communications Corporation
King of Prussia, PA

1. One of the most controversial provisions of S. 1145 is its rearticulation of the standard for computing reasonable-royalty damages. Statements made by proponents and opponents of this provision suggest that the two sides do not disagree so much over the relevant principles as they do over the means of codifying those principles. It appears to me that both sides generally agree that reasonable-royalty damages should be calculated as follows:

> ***First*, if the patented invention is the principal basis for consumer demand for the product, then the patentee should be awarded damages based on the entire market value of the product or process. Under no other circumstances should damages be based on the entire market value of the product or process.**
>
> ***Second*, if the entire-market-value test is not applicable, and market-based measures of a reasonable royalty – such as negotiated royalties paid for the same invention by third parties, or prices paid for non-infringing substitutes – are available, then those measure should be used to determine a reasonable royalty. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.**
>
> ***Third*, if neither the entire-market-value nor the market-based measures are applicable, then apportionment should be used to calculate damages. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.**

Do you agree or disagree with this articulation of the principles that should govern the calculation of patent reasonable-royalty damages? If you disagree, please provide a specific explanation, or please suggest any other way in which you believe that this expression of the principles governing the award of reasonable-royalty damages should be modified.

Answer to Question 1:

While accurate in certain respects, the above articulation oversimplifies the principles used to calculate "reasonable royalty" damages and overstates the relevance of apportionment. In that regard, one of the most significant deficiencies of the so-called apportionment proposal is its introduction of rigid mandates, formulas and generalizations that fail to address adequately the complexities of patent-dependent technologies, business models and licensing negotiations.

In general, there are three measures of monetary damages in patent infringement suits:

(i) lost profits, where the patentee can prove market demand for the product, its ability to meet that demand, and the lack of non-infringing substitutes.
(ii) an established royalty as evidenced by a pattern of licensing that is pertinent to the infringing use at issue; or
(iii) a reasonable royalty where the patent holder establishes the likelihood of monetary damage but is unable to quantify or prove lost profits or an established royalty.

The third category of a "reasonable royalty," which took root in the late 19th and early 20th centuries, is intended to ensure that all patentees, regardless of their size, business model or commercial strength, are able to obtain fair monetary compensation for injury caused by an infringer. Under the seminal case of *Georgia-Pacific*, the court endorsed the "hypothetical negotiation" construct as a general approach for determining a reasonable royalty where evidence of lost sales or relevant licensing terms are lacking. The objective of this methodology is to consider all of the relevant factors that would have influenced a licensing negotiation between the willing licensor and licensee at the time the infringing use began. (Note that this "willing buyer-willing seller" rule is a well-accepted method for determining the fair market value of all intellectual property assets.) With this market-based approach in mind, the *Georgia-Pacific* court identified an extensive list of factors that other courts had deemed potentially relevant in determining a reasonable royalty.

The *Georgia-Pacific* list of *potentially* relevant factors includes "apportionment" (i.e., factor 13), which considers the value of the patented invention vis-à-vis other features of the product or process. In the *Georgia-Pacific* case, the defendant-infringer asserted apportionment as a relevant factor that would have reduced the royalty paid for the patented invention in a hypothetical negotiation. The court rejected apportionment as a relevant consideration on the basis of the entire market value rule, i.e., finding that the infringed patent was the basis for market demand for the product.

However, nothing in *Georgia-Pacific* or its progeny suggests that apportionment and the entire market value rule are "either/or" propositions. In other words, the entire market value rule is clearly an exception to an apportionment analysis, as is the existence of an established royalty. Nevertheless, the fact that a patented invention is not the basis for market demand does not dictate that apportionment is determinative of a patent's value. Other *Georgia Pacific* factors may be far more probative of the royalty that would have resulted from a negotiation than the

"apportioned" value of the patented invention. This is particularly the case where a patent's value cannot be assessed with reasonable certainty through an artificial process of carving up the product or process. In such cases, the infringer bears the risk of uncertainty.

Even if apportionment is appropriate, however, its relevance will vary depending upon the product or process at issue. In other words, royalties are calculated in a variety of ways, with simplicity in accounting and administration being an important real-world consideration. Many licensors, for example, assess royalties on a per-product basis - e.g., $5.00 per product sold, or 1 percent of the purchase price. The fact that a patented invention is not the basis for market demand merely suggests that the agreed royalty rate would be lower - e.g., $5.00 per product sold, as opposed to $50.00.

The key goal of a reasonable royalty analysis is to permit each party to introduce evidence of the full range of market factors that would have influenced the agreed royalty base and rate in a hypothetical negotiation, recognizing that each party would have likely considered several factors and weighted those factors based on the specific patent, product and market conditions at issue. Each party bears the burden of establishing the relevance of the factors offered as favorable to its position, and typically attempts to meet that burden through the submission of financial data, economic expert testimony and other evidence of fair market value. The resulting process is highly fact specific, often complex and not amenable to any one statutory formula. But, then again, real-world royalty negotiations are similarly complex, fact-specific and unsuited to rigid formulas.

Georgia-Pacific has stood the test of time because of its endorsement of market principles and flexibility in damages proceedings, and its outright rejection of any specific formula or mandate. In contrast, the mandatory apportionment proposal wrongly assumes that in every negotiation, the parties would have necessarily and in the first instance undertaken a process of apportionment and treated that valuation as the single-most important consideration in deciding licensing terms. In reality, other factors may be equally or even more important, including (to paraphrase the *Georgia-Pacific* factors), the relationship between the parties; the nature and remaining life of the patent; the proposed use of the patent and the likely benefits accruing from such use; the patent's utility and advantages over competing alternatives; and the patent holder's general licensing policies and opportunity costs in permitting use of the patent. As explained by two experts:

> "The [hypothetical license] analysis involves calculating the prospective returns to the patent owner/licensor from allowing a licensee to use the patent, and the comparison of those returns with the owner's other opportunities for exploiting patent. For the licensee/infringer, determination is made of the profits reasonably anticipated from using the patent compared with those available from relevant alternatives. An analytical approach allows determination of a range of royalties to a reasonable licensor and a reasonable licensee*[sic]*. The range is typically narrowed to a single amount by adjusting

the range to account for factors specific to the case and the parties."[1]

Given the inherent complexity of an apportionment analysis, it is unlikely that parties to a negotiation would base value solely or even primarily on this single calculation. As noted in one commentary on apportionment, "From an economic standpoint . . . trying to determine what portion of the profits earned from a multicomponent product are attributable to any one component, or combination of components, is often a meaningless inquiry."[2]

By resurrecting a mandatory apportionment test (particularly one based on a novel and complex "specific contribution over the prior art" standard as opposed to one based upon *Georgia-Pacific*), Congress risks repeating mistakes of the past and subjecting patentees and infringers to the same uncertainty, excessive litigation costs and unfair damage awards that ultimately led to the flexible, market-based damages standard codified in Section 284 and clarified in *Georgia-Pacific*. Congress expressly and resoundingly rejected mandatory "apportionment" in 1946 when it adopted the existing statutory standard for calculating damages. During hearings on the issue, Congress and other experts noted that apportionment was an overly complex and wholly unworkable test, resulting in excessive litigation costs, extreme delays and unfair damages awards for all parties. One patent expert described mandatory apportionment accountings as "the great evil that has grown up around the patent system." And another expert observed that many cases requiring apportionment had "run from 10 to 20 years, [...] and others I have known have gone on for 20 years. Some now are running that have been running 20 years and all the people that started in the [apportionment] accounting are dead." To revert back to an apportionment standard that was universally condemned more than 60 years ago would represent a major step backwards for our patent system -- the very antithesis of patent "reform."

2. Some advocates of patent reform have stated that the Federal Circuit has inappropriately broadened the criteria for applying the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. If you agree that the Federal Circuit has inappropriately broadened the criteria for applying this damages measure, please identify the cases in which it has done so.

Answer to Question 2:

Although InterDigital cannot speak to every relevant case, we have yet to see any credible evidence that the Federal Circuit has inappropriately broadened the criteria for applying the entire market value rule. In fact, this allegation was recently addressed and refuted by former AIPLA president William Rooklidge in response to claims by Georgetown Law Professor John Thomas that expansion of the entire market value rule has led to a pattern of "inflated" damages awards. Of the ten allegedly offending cases cited by Professor Thomas, Rooklidge found only

1 William O. Kerr & Gauri Prakash-Canjels, *Patent Damages and Royalty Awards: The Convergence of Economics and Law*, LES Les Nouvelles 83, at p. 91 (June 2003).
2 Roger D. Blair & Thomas F. Cotter, *Rethinking Patent Damages*, 10 Tex. Intell. Prop. L.J. 1, at p. 15 (Fall 2001).

one - the *Alcatel-Lucent* case - in which a federal district court arguably broadened the entire market value rule beyond its usual bounds. Similarly, only one of the Federal Circuit decisions cited by Thomas - a short unpublished and thus non-precedential opinion from 1997 - affirmed what could be construed as an expansive interpretation of the entire market value rule.

In each of the other Federal Circuit and district court cases criticized by Thomas, (i) the entire market value rule was correctly stated, but the jury reached a debatable factual finding that the patented invention was the basis for customer demand (note that this was the case in the Federal Circuit's *Tec Air* decision cited by Mr. Squires); (ii) the entire market value rule was correctly stated but applied to include convoyed sales, consistent with applicable law; (iii) the entire market value rule was applied because the infringer had failed to provide evidence supporting damages apportionment; or (iv) damages were based on a "surrogate" royalty -- i.e., something other than the value of the infringing product or process -- and thus did not involve application of the entire market value rule or apportionment.

In short, despite rhetoric to the contrary, none of the Federal Circuit decisions cited by Thomas suggests consistent and repeated expansion of the entire market value rule beyond its traditional bounds; nor do these cases signify the kind of systemic failure or pattern of excessive damages that would warrant sweeping legislative reform. Our judicial appellate process is best-suited to address and correct the kind of errors alleged by Thomas without unnecessary congressional intervention. Nevertheless, if legislation is inevitable, a far more sensible approach would be to instruct the Federal Circuit to develop model jury instructions on the proper application of *Georgia-Pacific* and the entire market value rule when calculating damages based on a reasonable royalty.

Significantly, recent surveys disprove claims of dramatically escalating damage awards and out-of-control juries. A 2007 study by PWC found that the median in patent damage awards has leveled off in the past four years, with a median in 2006 of approximately $9 million. Another economic study found that a significant percentage of damages awards each year are below $1 million.[3] Damages of this size are certainly not trivial, but nor are they disproportionate to the growing importance and value of patent rights in today's economy or the commercial significance of infringement cases. The fact that a patent infringement case has reached the damages stage is testament both to strength and economic value of the patent, as well as the commercial severity of the infringing activity. In other words, these are high stakes cases, and sizeable damage awards are to be expected. Indeed, a pattern of trivial damage awards would signal the kind of systemic weakness that we see in foreign IP regimes where patent rights are not adequately respected or enforced.

Finally, while each year typically produces a handful of cases that significantly exceed the median - the $1.5 billion verdict in *Altcatel-Lucent* being the most notable example - such decisions cannot be condemned purely on the basis of the ultimate dollar figure. In *Alcatel-Lucent*, for example, the $1.5 billion verdict was attributable in significant part to the inclusion

3 *See* supra note 1.

of foreign sales in the damage award, a situation addressed by the Supreme Court's decision in the *Microsoft/AT&T* case.

3. In his testimony (at page 11), Mr. Squires suggested with regard to the entire-market-value rule that the committee should "ensure the market value is based overwhelmingly on the patent's specific contribution over prior art." The bill currently states that the patent's contribution must be the "predominant" basis for consumer demand for the product. Do you believe that "predominant" is the appropriate word to employ here? Would "overwhelming" be more appropriate? Would "principal" be more appropriate? Please explain your answer.

Answer to Question 3:

Use of the term "overwhelming" would significantly narrow and restrict application of the entire market value rule beyond its historical bounds and thus would not be appropriate. The entire market value rule applies whenever the patented invention is the basis for market or customer demand. To the extent that courts have defined the extent of value or market demand that must be attributable to the patent, they have typically used terminology such as "principal" or "substantially". Application of the entire market value rule rests on the financial and/or economic dependence of the product or process on the patented invention. The fact that other features of the product may have economic value is not relevant; the key question is whether the product's profitability or market demand is substantially attributable to the patented invention.

Moreover, where the patent provides evidence supporting application of the entire market value rule, the burden is on the infringer to rebut that evidence with proof that the value of the product is substantially attributable to elements other than the patent. The term "overwhelmingly" suggests some novel and excessive quantitative threshold that would potentially eliminate the application of the entire market value rule to any product or process that combines a patented invention with other third party features.

Although the term "predominant" is preferable to "overwhelmingly," the new formulation of the entire market value rule would limit its application to cases where the "specific contribution over the prior art" is the "predominant" basis for market demand. The existing rule instead considers whether the patented invention is the principal basis for market demand. As with the bill's revised apportionment test, this reformulation of the entire market value rule appears to have only an overriding goal, namely to make it far more difficult for patent holders to prove royalty-based damages and thus to significantly reduce the cost of infringement.

4. In some cases, courts appear to have applied the entire-market-value standard to measure damages, and then awarded the patentee only a small percentage of that value as the damages. Assuming that the entire-market-value test is the appropriate means of calculating damages in a particular cases, is this approach correct? For example, if the infringed invention is the basis for consumer demand for the product, is it appropriate for a court to award a percentage of the sale price of a product as the royalty, or should the

court award the patentee all profits earned from the sale of the product?

Answer to Question 4:

In the context of a reasonable royalty analysis, application of the entire market value rule merely confirms that the court or jury may use the entire value of the product or process as the compensation base. In some cases, the court may deem it appropriate to assess a royalty rate of 100 percent - meaning that the patent holder would be entitled to all profits stemming from the infringer's sales. In other cases, however, a lower royalty rate may be appropriate in light of the full range of relevant market factors, provided that the royalty rate is assessed against the full compensation base.

To borrow the popular automobile example, consider a patented invention that doubles the gas mileage for SUVs. A jury could quite reasonably conclude that this patented feature is the principal basis for the SUV's market demand, and thus extend the compensation base to include the price of the car. However, the fact that the invention is the principal reason for the car's profitability does not necessarily mean that the parties would have negotiated a 100 percent royalty rate. Recognizing that the SUV would likely achieve some - albeit far less - profits even without the invention (for example, by using an alternative but inferior feature), the parties might instead have negotiated a 50 percent royalty rate.

This example highlights a fundamental misconception perpetuated by mandatory apportionment advocates, namely, that application of the entire market value rule dictates that a patent owner will necessarily recover all of the infringer's profits and thus achieve some kind of a windfall. Apportionment and the entire market value rule are but part of the analytical toolkit available to a court and jury in a damages proceeding. The guiding principle of a reasonable royalty calculation is to use these and other tools to predict with as much accuracy as possible the royalty that the parties would have negotiated at the hypothetical bargaining table, recognizing the condition and expectations of the parties at the time of infringement.

With that said, a reasonably royalty is meant to be the minimum amount of damages recoverable, and thus other factors may warrant a higher damages recovery. Similarly, evidence of an established royalty is typically deemed the minimum - but not the maximum - damages payable to the patent holder. If this were not the case, patent damages would provide no disincentives against infringement, no matter how egregious or injurious. Thus, a court will typically use the established royalty as the starting point for a damages calculation but then increase the "reasonable royalty" award to reflect other relevant considerations.

5. If apportionment is used to calculate damages, should the infringer bear the burden of proving that his and others' contributions added value to the product and should be deducted from damages? Please explain your answer.

Answer to Question 5:

Yes. As noted in Chief Judge Michel's recent letter to Chairman Leahy and Senator Hatch, the infringer currently bears the burden of proving (i) that apportionment is relevant and appropriate, and (ii) the relative value of the features or improvement contributed by others. Moreover, the risk of uncertainty in calculating damages is currently borne by the infringer and not the patent holder. To shift this burden or risk to the patent holder would favor the interests of the wrongdoer over those of the injured party, a result that would be completely antithetical to fundamental principles of patent rights and damages. In this regard, it is important to remember that the issue of damages is only relevant once the issues of infringement and validity have been resolved, i.e., once the wrongdoing has been confirmed.

6. The bill's articulation of the apportionment test as based on "the patent's specific contribution over the prior art" appears to require the trier of fact to determine what, if anything, the invention added to prior art. Given that, if the trier of fact is measuring damages, it has already decided that the patent is valid and infringed –*i.e.*, that it did add to prior art – doesn't the bill's way of articulating the apportionment test require the trier of fact to revisit questions that it necessarily already decided when it found that the patent is infringed? If so, is this appropriate?

Answer to Question 6:

It does appear that, under the current bill, a trier of fact must revisit issues relating to how the patented invention is distinguished over the prior art. However, because of the uncertainty of the apportionment language – namely, the requirement that a reasonable royalty be based upon the value of the patent's "specific contribution over the prior art" – it is unclear how much duplicative effort will be required by the jury. In fact, it is entirely unclear how, in practice, a jury is to identify and quantify the value of a patent's "specific contribution over the prior art."

The proposed reformulation of apportionment to "specific contribution over the prior art" is both unprecedented and inappropriate. Under the Senate bill, a court must ensure that a reasonable royalty "is applied only to that economic value properly attributable to the patent's specific contribution over the prior art," unless "the claimant shows that the patent's specific contribution over the prior art is the predominant basis for market demand for an infringing product or process." Thus, in virtually every patent case involving complex systems, this mandatory apportionment of damages would be applied above all other factors that might otherwise influence the determination of a reasonable royalty, including a patentee's history of negotiated royalty rates and other licensing terms. Although intended to guard against allegedly inflated damage awards, this mandatory apportionment test would represent a dramatic departure from the market-based principles that currently govern damages calculations. Even worse, it would result in unpredictable and artificially low damages awards for the majority of patents, no matter how inherently valuable they might be.

The only proposed exception to mandatory apportionment is a new and much-heightened formulation of the "entire market value rule", which requires the patentee to show that the patent's "specific contribution over the prior art is the predominant basis for market demand for

the infringing product or process." Here again, the terminology "specific contribution over the prior art" has no defined or well-understood meaning under existing patent law and, as a result, will inject considerable uncertainty into damages proceedings. Similarly, the requirement that a patent's "specific contribution" be the "predominant" basis for market demand will for most complex technologies erect an insurmountable burden of proof that will gut the "entire market value rule" of any relevance.

Perhaps most troubling is the fact that the bill relegates evidence of negotiated licensing terms to a secondary consideration that can and must be ignored by the court to the extent that such terms conflict with the dictates of apportionment. Under the Senate bill, a court must apply the new apportionment analysis even in cases where the patentee demonstrates a history of negotiated royalties and licensing terms; moreover, the court has discretion to ignore these terms altogether. There is simply no economic or legal justification for mandating that a court and jury second-guess the market, and doing so will only encourage infringement.

Under the new mandatory apportionment provision, many infringers will feel emboldened to continue their infringing activity because their exposure to damages under the amended Section 284 is dramatically decreased or at least made less certain. Infringers, to the extent they are willing to engage at all in licensing discussions with a patent holder, will adopt negotiating positions with intractably low financial elements, thereby significantly reducing the likelihood of arriving at a negotiated license agreement. At the same time, patent holders that rely upon licensing as the mechanism for securing a return on their investment in innovation will be forced to litigate in order to achieve at least a modest financial reward for their inventive contribution to society. Along with an increase in litigation, costs for legal proceedings will also grow as the new process for calculating damages will in virtually every case require the court to determine "the patent's specific contribution over the prior art."

The extreme difficulty and cost of administering such a novel and complex standard was emphasized in Chief Judge Michel's recent letter to Chairman Leahy and Senator Hatch. In his letter, Chief Judge Michel noted that courts and juries are ill-equipped to interpret or apply this new apportionment test, and the requirement that they do so will inevitably lead to costly battles between expert witnesses and increased litigation costs and delays:

> This is a massive undertaking for which courts are ill-equipped. For one thing, generalist judges lack experience and expertise in making such extensive, complex economic valuations, as do lay jurors. For another, courts would be inundated with massive amounts of data, requiring extra weeks of trial in nearly every case. Resolving the meaning of this novel language could take years, as could the mandating of proper methods. The provision also invites an unseemly battle of "hired-gun" experts opining on the basis of indigestible quantities of economic data. Such an exercise might be successfully executed by an economic institution with massive resources and unlimited time, but hardly seems within the capability of already overburdened district courts.

Chief Judge Michel concludes by stating that he is "unaware of any convincing demonstration of the need" for this new mandatory apportionment standard.

7. Does the bill's "specific contribution over prior art" articulation of the apportionment test depart from current law? (If so, please cite cases that articulate the test differently.)

Answer to Question 7:

Yes, this specific language and the overall damages proposal represent a dramatic departure from existing patent damages law and more generally from fundamental principles of patent property rights. In fact, InterDigital is unaware of any case using the "specific contribution over the prior art" articulation of the apportionment test.

The apportionment test, as stated in *Georgia-Pacific*, considers "the portion of the realizable profit that should be credited to the *invention* as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer." (emphasis added). The *Georgia-Pacific* articulation of the apportionment test has been consistently followed by other courts (*see, e.g., Novozymes v. Genencor Int'l,* 474 F. Supp. 2d 592 (D. Del. 2007); *GAUS v. CONAIR Corp.,* 2003 U.S. Dist. LEXIS 1445 (S.D.N.Y. 2003); *Fromson v. Western Litho Plate and Supply Co., 853 F.2d 1568* (Fed. Cir. 1988); *Trio Process Corp. v. L. Goldstein's Sons, Inc.,* 612 F.2d 1353 (3d Cir. 1980)) and is routinely recited in model jury instructions on royalty-based patent damages.[4]

The *Georgia-Pacific* reference to "invention" instructs the court or jury, as the case may be, to consider the value of the patented claim as a whole vis-à-vis other product features. In contrast, the new "specific contribution over the prior art" formulation suggests that part, but not all, of the patent is valuable and thus entitled to damages. This language would introduce considerable uncertainty into damages proceedings, encourage a court to substitute its subjective opinion of a patent's "true" value for that of the market, and resurrect long-rejected notions that a patent must evidence a flash of creative genius to be valid and enforceable.

Beyond these deficiencies, the "specific contribution over the prior art" formulation misstates and unduly restricts the normal process for valuing a patent's contribution to a product or process. In general, the economic value that an invention adds to an infringing product should be determined by comparing the infringing product to non-infringing alternatives, which may, or may not be, pre-existing. Nevertheless, it would be a mistake to legislate any one formula for evaluating a patent or calculating damages. The diversity and complexity of patented technologies demands the kind of flexible, market-based approach to damages reflected in *Georgia-Pacific.* As noted by the *Georgia-Pacific* court:

---

4 *See, e.g.,* http://www.fedcirbar.org/documents/forms/LINKS/-%20FED.%20CIR.%20FINAL%20VERSION%20(3).PDF; http://www.aipla.org/Content/ContentGroups/Publications1/Guide_to_Model_Patent_Jury_Instructions.htm

> The drawing of proper conclusions from conflicting evidence concerning the amount of a reasonable royalty has been said to call "for the exercise of judicial discretion by the District Court." *General Motors Corp. v. Dailey, 93 F.2d 938, 942 (6th Cir. 1937).* Both sides agree that this Court has a broad range of judgment in evaluating the relevant factors. In the present case there is a multiplicity of inter-penetrating factors bearing upon the amount of a reasonable royalty. ***But there is no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent.*** In discharging its responsibility as fact finder, the Court has attempted to exercise a discriminating judgment reflecting its ultimate appraisal of all pertinent factors in the context of the credible evidence. (emphasis added)

This flexible, market-based process for calculating a reasonable royalty has been applied in thousands of patent cases. Congress should not depart from this well-established methodology, particularly when the proposed apportionment amendments appear to ignore hard-won lessons about the dangers of rigid damages rules and formulas.

(For all witnesses except Ms. Biberstein.)

8. In her testimony (page 9), Ms. Biberstein criticizes the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. She states:

> **In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.**

Do you agree with Ms. Biberstein that deducting all prior art would deny appropriate compensation to the inventor of a novel-combination invention? Please explain your answer.

Answer to Question 8:

Yes, InterDigital agrees with these concerns. This proposed "subtraction" language appears to be nothing more than a thinly veiled attempt to severely minimize (and potentially effectively eliminate) the cost of infringement. A fundamental premise and objective of the patent system is to encourage a ripple effect of invention through disclosure of the "prior art." Few, if any, patented inventions arise in a complete vacuum without inspiration from previous inventions. In

order to encourage a continuum of innovation, the patent system rewards and protects inventors who configure or improve prior art in a useful, novel and non-obvious way.

How is a court to subtract the value of "prior art" in a way that appropriately reflects these nuances or the fact that a product's profitability may, as Ms. Biberstein's suggests, be largely due to the novel and non-obvious configuration or functionality of the prior art? To return to the automobile example above, the SUV and all of its various parts arguably constitute prior art. And even my novel fuel efficiency feature may have precedent in the market. But perhaps my improvement to the prior art allows this feature to be manufactured for a nominal sum, or to function without risk of explosion, or to increase fuel efficiency by a far greater amount. How should the court evaluate the "prior art" in this case?

Among the many problems with this proposed subtraction mandate is that it prevents a court from giving due consideration to the full array of market considerations that may impact a patent's value and the economic relevance of so-called prior art. Moreover, it places all of the risk of uncertainty on the patent holder. Nothing in the proposed language suggests that the infringer-wrongdoer must prove the relative value of the prior art; to the contrary, the burden of proof falls entirely on the court and presumably the patent holder. As a result, there is little question that the proposed language would lead to arbitrary and artificially low valuations of patents and in turn diminish the economic rewards and incentives associated with patent rights.

(For Ms. Biberstein only.)
8. In your testimony (page 9), you criticized the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. You stated:

> **In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.**

If a combination truly is novel, nonobvious, and useful, wouldn't the whole be worth more than the sum of its parts? In other words, if the combination of prior art really did add value to a product beyond that which already existed in the prior-art elements when used separately, wouldn't the value added by the combination of elements (the added worth of the whole) remain once that prior art (the sum of the parts) had been deducted?

9. If you believe that the bill's "specific contribution over prior art" articulation of the apportionment test is inappropriate, please suggest alternative ways in which you believe

that the test should be articulated.

10. S. 1145 also requires that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages. Do you believe that the use of the language "specific contribution over prior art" is appropriate to identify that part of the invention that generates consumer demand when applying the entire-market-value test? If not, please suggest other language that you believe is appropriate.

11. Please identify any Federal Circuit decisions (other than those identified in your answer to question 2) that you believe adopt an incorrect legal standard for calculating patent damages.

12. At page 7 of his May 18, 2007 letter commenting on S.1145, the General Counsel of the U.S. Department of Commerce endorsed some but not all of the bill's limits on the award of treble damages for willful infringement. In particular, he excluded from his endorsement proposed section 284(b)(3)(A) and (B), which create a defense to willfulness that the infringer had an "informed good faith belief" that the patent was invalid or was not being infringed. If you support this provision, please explain why you believe that this provision is appropriate. Do you believe that this provision goes beyond current law? If not – or if you believe that it only adds to a defense that exists under current law – please cite any judicial decisions that articulate this defense in current law. Should the provision also require that the good-faith belief be a reasonable one? Are there any other limits that you believe should be placed on this defense?

13. The Commerce Department GC's letter also excluded from its endorsement proposed section 284(b)(4), which requires that willfulness be plead only after the patent has been found to be valid and infringed, and which requires the court to make the finding of wilfulness. Do you support, oppose, or have no objection to this provision? If you support or oppose it, please explain why.

14. It appears that the Federal Circuit's recent *Knorr-Bremse* decision precludes a trier of fact from drawing an adverse inference with regard to willfulness from the failure of an alleged infringer to obtain legal advice with regard to a patent. In light of that decision, is proposed section 284(b)(3)(C) of the bill necessary?

15. In his testimony (at page 10) with regard to proposed section 284(b)(2)(B), Mr. Squires states that:

> **While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice**

threshold.

Do you agree that proposed 284(b)(2)(B) should be modified to ensure that it describes "blatant copying" and not "mere notice?" Should paragraph (B) specify that, in addition to requiring that the infringer had knowledge of the patent, the infringer also must be aware of a substantial risk that his product infringes the patent? Should paragraph (B) require a showing that the infringer learned of the patented art from the patent itself or from a product licensed under the patent (or should it be a defense to an "intentional copying" finding that the infringer show that he learned the patented art from other sources)?

16. Is there any other element of proposed section 284(b) that you believe inappropriately limits the award of treble damages? If so, please provide a specific explanation.

[No responses required to Questions 8-16]

(For Mr. Bernstein only.)

17. You stated in your testimony (page 9) that apportionment is only appropriate "if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate."

A. Assuming that market-based measures such as established royalties are unavailable, do you believe that apportionment should not be used unless the patented invention is only an insignificant and separable part of the overall product?

Answer to Question 17.A:

First off, to be clear, it is our view that the concept of "apportionment," as it exists in the current bill and which, again, is not the same as it is set forth in *Georgia-Pacific* factor 13, is not an appropriate measure of damages in any situation. For at least the reasons set forth above, the current apportionment language is not only practically unworkable, but makes no sense legally.

It is also our view, however, that consideration of apportionment as set forth in *Georgia-Pacific* factor 13, may be appropriate in combination with other relevant factors as articulated in that case, or, if no such other relevant factors exist, then by itself. Thus, consideration of apportionment as set forth in *Georgia-Pacific* factor 13 is appropriate for some reasonable royalty determinations – but not all.

Turning to your specific question, if you are referring to apportionment as set forth in *Georgia-Pacific* factor 13, and if you are suggesting a scenario where no other relevant factors exist, then the *Georgia-Pacific* concept of apportionment by itself may be appropriate to determine a

reasonable royalty. However, it is unclear whether that is the scenario you are trying to describe. Also, I should clarify the quote from my written testimony. My statement that "courts have long held that the parsing of a patent's value is sensible only if the patent represents a relatively insignificant and separable part of the overall product" was not intended to mean that in those scenarios, i.e., where the patent represents a relatively insignificant and separable part of the overall product, ONLY *Georgia-Pacific* factor 13 should be considered when determining a reasonable royalty. Rather, I was suggesting that *Georgia-Pacific* factor 13, in addition to any other relevant factors, should be considered. If there are such other relevant factors, they should not be ignored just because factor 13 is relevant.

B. There presumably are a wide range of patented inventions that, while constituting more than an insignificant and separable part of the infringer's product, also do not constitute the principal basis for consumer demand for the product. Again assuming that market-based measures are unavailable, what measures do you believe should be employed to gauge royalties for inventions that fall within this range?

Answer to Question 17.B:

The question suggests that an established royalty is the only market-based measure by which to evaluate a reasonable royalty -- and, consequently, that apportionment is appropriate and decisive in all other cases, unless the entire market value rule applies. To the contrary, the full list of *Georgia-Pacific* factors are "market-based measures" that may be more probative of a patent's value than apportionment, or at least among the relevant factors that should be considered in addition to apportionment.

Moreover, to the extent relevant, an apportionment analysis cannot and should not take place in a vacuum without considering other factors that would have influenced the patent's fair market valuation in a hypothetical negotiation. In other words, apportionment becomes a completely artificial analysis unless guided by consideration of other *Georgia-Pacific* factors that affect the patented invention's contribution to a product's value or profitability, including, for example, "the established profitability of the product made under the patent; its commercial success; and its current popularity" and the "the utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results." To complete the hypothetical negotiation, the court or jury should also consider the parties' commercial relationship, the relative returns and opportunity costs of licensing the invention, and the duration of the patent, among other factors. The current apportionment proposal pays lip service to the potential relevance of other market factors and forces a court to treat such factors as secondary considerations.

(For Mr. Bernstein only.)

18. You state in your testimony (page 12) that:

> **A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention is novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention*, not merely a parsing of claim elements, that reflects the patent's contribution over the prior art.**

What is the difference between showing that an invention is "novel" and showing that it makes a "specific contribution over prior art?" Your last sentence quoted above appears to suggest that merely the invention as a whole (rather than each of its claims) must add to prior art. Is this what you mean? If so, and if merely the "invention as a whole" (rather than each of its elements) must add to prior art, why should elements of the invention that do *not* add to prior art be considered when applying either apportionment or the entire-market-value rule? To state this question differently, to the extent that a validly patented invention includes elements that do *not* constitute a specific contribution over prior art, why should the patentee be compensated for such elements in an apportionment analysis – or be allowed to use the market demand generated by such elements to advocate for application of the entire-market-value rule to gauge the value of his invention?

Answer to Question 18:

One of the difficulties I have in answering this question is the unworkable and nonsensical nature of the apportionment language found in the current bill. As I tried to explain in my testimony, under current law and applicable rules and regulations, a patent applicant is obliged to demonstrate that the claimed invention as a whole is novel and nonobvious over the prior art before a patent is granted. Thus, it is the entire claimed invention, not merely a parsing of claim elements (which is apparently what the current bill requires), that reflects the patent's contribution over the prior art. This distinction from the language of the current bill is significant.

First, consider the situation where all elements of a claimed invention were known, yet the combination of those elements was not. For example, suppose a patent applicant files an application claiming an invention having elements A+B+C+D. One prior art reference teaches A+B, another teaches C+D. Since there is no single prior art reference teaching the combination of A+B+C+D, the invention is clearly novel. And, assuming it would not be obvious to combine the two references, then the applicant is entitled to a patent. In this example, applying the apportionment language of the current bill by ignoring the elements that are found in the prior art will result in there being no perceived contribution over the prior art, which is obviously an absurd result. This simple example (and there are others) clearly illustrates that it is the *entire invention* that has meaning and that is the subject of the patentability analysis. Parsing elements of the claim to try to divine a patent's specific contribution over the prior art is simply not workable in practice.

Moreover, even if apportionment is an appropriate factor in calculating a reasonable royalty, the historical objective of this test as set forth in *Georgia-Pacific* factor 13 is to limit the patent holder's damages to the value of the patented invention, not to some subjectively defined component of the invention deemed to be a "specific contribution over the prior art." Given the novelty of this language both in the context of the patent examination process and damages case law, InterDigital is frankly uncertain of its intended relationship to the statutory requirements of novelty and non-obviousness, which appropriately define the patent claim and the scope of exclusive rights and remedies granted to the patent holder in the first place. As noted above, we share the concerns voiced by Chief Judge Michel and others that a mandatory and novel apportionment test will greatly increase the cost, uncertainty and delays associated with patent litigation. We also believe that this test would inappropriately call into question the value and rights associated with a patent claim even after such claim has been deemed valid and enforceable by the patent examiner and a court or jury.

The strength of our patent system is its recognition that an issued patent creates valid, enforceable and predictable property rights that confer meaningful remedies intended to ensure fair compensation for, and effective disincentives against, infringement. If the proposed apportionment language is enacted, Congress will effectively signal to the inventive community that an issued patent, despite having met rigorous standards of novelty and non-obviousness, is something less than a property right and of questionable enforceability.

Significantly, the large tech manufacturers advocating mandatory apportionment would successfully avoid this cloud of uncertainty, given that the specific contribution language of the current bill applies only to reasonable royalty awards. A large manufacturer with an established product and market base would be able to recoup lost profits for infringement under existing case law without having to bear the risks and costs of proving the patent's "specific contribution over the prior art." The end result will be a discriminatory, stratified patent system, in which the patent rights of large, established manufacturers will remain strong and unscathed, while the rights of small inventors, universities, research firms and licensing-based businesses will be greatly weakened. The American consumers will pay the ultimate price in the form of weakened competition, limited product choice and higher prices, and ultimately reduced job growth and prosperity.

(For Ms. Doyle only.)

19. At pages 7-8 of your testimony, you described a situation in which a patent plaintiff sued Palm on account of an allegedly infringing component in a Palm product, rather than the supplier of the component. You described this as "gaming behavior." Do you believe that it is always inappropriate for a patent plaintiff to sue a manufacturer who purchases an allegedly infringing component and incorporates that component into its product, rather than (or in addition to) suing the supplier of the component itself? Setting aside the specific case that you described, if a manufacturer does incorporate into its product a component that infringes a valid patent, it would appear to me possible that this

manufacturer paid a lower price for the component because of that infringement – and thus profited from that infringement. In such a case, should the patentee be permitted to recover for that infringement from the manufacturer that purchased and used the component?

20. In his testimony, Mr. Dudas expressed concern about the PTO's ability to handle the volume of post-grant review petitions, particularly if (as in S. 1145) such review is available for patents granted prior to the enactment of such a procedure. In order to prevent the volume of petitions from overwhelming PTO's resources, would you favor the following limits on the post-grant review procedure? (Please explain your answers):

> **A. A provision in the legislation that the post-grant review procedure shall not become available until the PTO certifies that it has sufficient resources to hear post-grant review petitions.**
>
> **B. A provision making PTO's exercise of post-grant review discretionary, akin to the U.S. Supreme Conrt's certiorari review. (Perhaps to be accompanied by a requirement that the PTO decide whether to hear a post-grant review petition within a specific amount of time.)**

21. S. 1145 requires that post-grant review be completed within 12 months, with a possibility of a six-month extension. Do you believe that this deadline is realistic – that the PTO will be able to abide by it in the large majority of cases – if the procedure that is implemented is identical to that in S. 1145 as introduced in the Senate? Do you believe that this deadline (or a longer deadline) would be realistic if the post-grant review procedure were limited as described in the preceding question?

22. The post-grant review procedure proposed in S. 1145 does not apply a presumption of validity to patents reviewed in such a proceeding. Do you believe that this omission is appropriate or necessary? If so, why?

23. Under the post-grant review procedure proposed in S. 1145, a party challenging a patent is only estopped from raising those claims that he did raise before the PTO, not those that he could have raised.

> **A. Do you believe that this restriction on estoppel to claim preclusion (rather than issue preelusion) is appropriate or necessary? If so, why?**
>
> **B. It appears to me that under the post-grant review procedure as proposed in the bill, a party who wishes to challenge a patent and who knows of five bases to allege invalidity could assert only two of those bases in the post-grant review procedure, saving the remaining bases to assert in federal district court. Are such taetics possible under the procedure as proposed in**

the bill? Should the bill be modified to preclude such tactics, or are such tactics an acceptable price to pay for the advantages of not precluding a party that exhausts post-grant review from asserting additional validity challenges in district court?

24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown. Do you believe that this limitation is appropriate or necessary? Please explain your answer. If you believe that this limit is not appropriate, please suggest an alternative proposal.

25. If a patent challenge is pending in district court, and the alleged infringer commences post-grant review proceedings before the PTO, should the district-court action be stayed pending resolution of the post-grant review? Should such a stay be granted if requested by the patentee? Should any other restrictions be placed on such stays?

26. In his testimony (at page 15), Mr. Bernstein expressed concern about the breadth of the rulemaking authority that S. 1145 would grant to the PTO. For what purposes do you believe that the PTO needs rulemaking authority? To what subject matter should the rulemaking authority granted by this bill be limited?

27. One concern expressed about the current patent-litigation environment is that a few bad actors send large numbers of letters asserting infringement or "inviting" licensing of their patents without conducting a reasonable investigation as to whether the letter-recipient's product actually infringes their patents. (*See, e.g.* Doyle testimony at pp.6-7.) Would you support a provision requiring that a district court impose an appropriate sanction at the conclusion of an infringement suit if, on the motion of the defendant, the court found that no reasonable person skilled in the art would conclude that the plaintiff's patent was infringed by the defendant's product? Should such sanctions be paid to the defendant or to the PTO – and if to the PTO, should the district court be permitted to consider assertions of invalidity made against other parties and their products by the plaintiff?

[No responses required to Questions 19-27]

SPECTER QUESTIONS:

Ms. Kathryn L. Biberstein, Senior Vice President, General Counsel and Secretary, and Chief Compliance Officer, Alkermes, Inc.:

1. Ms. Biberstein, would your company have been able to raise the capital necessary to develop the products you've developed had the language in S. 1145 on apportionment been in effect when your company was founded?
   As described in my Senate Judiciary Committee testimony, the strength and predictability of the US patent system is the foundation for investment in early stage biotechnology products. Each product my company has conducted development for over its twenty year existence has been funded by investment from private sources such as venture capital funds and R&D limited partnerships, from the public capital markets and from licensing and development agreements with larger pharmaceutical partners. Patent due diligence is the most important part of any investors decision to invest in early stage technology. In each case, the investor has relied on the the ability to enforce valid patents against potential infringers in order to recoup its investment should a product ultimately reach the market place. Weakening the ability of the investor to recoup this investment, coupled with the uncertainty of how an apportionment of damages provision such as that contained in S. 1145 would be interpreted by the courts, would I believe have made raising money for early stage and unproven technology such as that developed by Alkermes virtually impossible.

2. You argue that adding statute to judicial precedent on apportionment could also make infringement cheaper—what do you mean by that? Can you provide a hypothetical for us?
By basing the royalty award on the "patent's specific contribution over the prior art," the bill basically attempts a valuation of the infringed patent on the basis of its technological contribution over preexisting technology. This, in our view, is the wrong inquiry, because the technological merit of an invention is not determinative of its commercial value: there are inventions which represent a great leap in technology that are commercially worthless – and there are inventions that are only a small improvement over existing technology that are commercially tremendously valuable. Many, if not most inventions in biotechnology are not made in a great leap forward, but through methodical, persistent development work that results in valuable, but incremental, improvements in technology. It is the bill's principle: "a small technological improvement deserves only a small damages award" that will systematically undervalue the bulk of the inventive work done in biotech.
Assume, for example, that a new buffer formulation results in an "only" 10% improvement in the shelf life of a biotech drug product. Even though the technological advance over the preexisting formulation is relatively small, such

an improved product can take a large market share of the previously-existing product because, for example, it allows distributors and wholesalers more flexibility in shipping and warehousing and reduces the amount of unused, expired product that is returned each month. In this example, the royalty award for infringement should be based on the significant economic benefit conferred by the invention, not on the relatively small technological advance.

3. Do you think that there is the potential for abuse of the current post-grant review language? If so, how do you think Congress could amend it to make it a more predictable and understandable process that would encourage investment?
We believe that the bill's post-grant review language should provide incentives for bringing the validity challenge as early as possible, before the patent owner and the public begin to rely on a newly-issued patent. Post-grant proceedings will not come cheap; they will involve significant legal costs for challengers and patent owners alike, and we estimate the cost of such a proceeding to easily reach several hundred thousand dollars. Businesses cannot normally justify such expenses without a strong reason. For a would-be challenger, the rational thing to do will be to wait as long as possible to bring the challenge, to wait and see if somebody else invalidates the patent first, to wait and see if the patent owner makes narrowing amendments to the patent; to watch and learn which of the legal theories pursued by other challengers show promise and which ones don't, and the like. The bill's post-grant language, by providing for second-window challenges, provides opportunities and incentives to do just that.
Conversely, a patent owner who invests vast amounts of corporate funds and effort into developing a patented product may find itself under huge pressure when faced with a post-grant challenge that occurs years into product development, at a point where the patent owner is committed to the product and cannot turn around and develop something else, or risk losing the patent. In such a scenario, the patent owner stands to lose very much – the patent that protects the investment already made – and the challenger may stand to lose relatively little – the cost of bringing the proceeding. As is always the case, the settlement pressure will be on the party that stands to lose more. Even a patent owner who is relatively confident that it will prevail in a post-grant proceeding, say 80% confident, may decide that a 20% risk of losing the patent is too much, and settle, or grant a cheap license. This arithmetic of risk, probability, and value can be gamed for purposes unrelated to patent quality and encourages aggressive commercial practices under the guise of patent quality review.

4. Would you explain why you think we should repeal the best mode requirement?
The best mode requirement was recommended for repeal by the National Academies because it represents a subjective vestige in patent law that today has outlived its usefulness as a requirement of patentability and is, instead, used as a litigation tool to probe the state of mind of the inventor for purposes of invalidating the patent. Best mode has no equivalent in the patent laws of other industrialized countries, which instead rely solely on high-quality technical

disclosures. Typically, at the time the patent is litigated, the commercial patented product has matured to a point where it is no longer relevant what the inventor contemplated 10 or more years earlier, when the invention was made, as the "best mode" for practicing the invention. Thus, in the overwhelming number of cases where best mode violations are alleged, this validity attack has little to do with the merits of the underlying litigation and should be repealed to make patent litigation more objective and predictable, and to bring U.S. patent law more in step with the patent laws of other industrialized nations.

5. Is it true that courts invalidate an entire patent if they find inequitable conduct in any aspect of prosecuting a patent application, even if the patent claims are completely valid and/or the inequitable conduct was irrelevant to prosecution of the claims? Should S. 1145 amend the current defense of unenforceability? If so, what recommendations would you make for such an amendment?
It is true that, currently, courts declare the entire patent unenforceable if they find inequitable conduct, even if the patent is otherwise valid and infringed. This is, for example, what happened in the Purdue Pharma case with the OxyContin patent, and the Ferring case with the DDAVP patent. In both examples, the underlying patent was valid and the alleged misconduct had nothing to do with the validity of the claims. We believe the doctrine of inequitable conduct should be repealed because courts should focus on core questions of validity and infringement, not probe into allegations of misconduct that caused no discernable defect in the patent. If, however, the Senate decided to reform the law of inequitable conduct, such reforms should provide a clear legal standard under which the court must find that, but for the applicant's misconduct, the Patent Office would not have issued at least one invalid claim. The reforms should also contain a mechanism whereby entities who buy or in-license a patent, and who later learn that the prior owner engaged in misconduct during the patent application process, can submit the necessary correct and true information to the patent office and repair any defects in the patent without being subjected to the patent-unenforceability sanction.

6. What effect do you think that the patent bill – if signed into law today – would have on the research and development of new drugs?
We believe that the bill will, in the aggregate, impair biotech's access to capital, because so many biotech businesses depend on the strength of their patent portfolios to secure external financing of their costly and lengthy product development programs. More biotech products will experience delays on their way to the marketplace, and others will be shelved entirely until the investment climate improves.

7. Some have argued that the Court of Appeals for the Federal Circuit's application in *SanDisk Corp. v. STMicroelectronics Inc* of the Supreme Court's *MedImmune v. Genentech* decision significantly lowers the bar for when a party may bring a declaratory judgment action and will have the practical effect of

stifling licensing negotiations. Do you agree with these statements? If so, do you think Congress should do address this in the patent reform debate?
We agree that these two decisions are already impacting the way commercial parties conduct and memorialize licensing transactions, and it is probably true that the bar for bringing a declaratory judgment action is now lower than the previous "reasonable apprehension of suit-" standard. We believe, however, that the marketplace should be given more time to adjust current licensing and transactional practices to these court decisions and their progeny, before we can conclude that a legislative solution is required.

COBURN QUESTIONS:

1. Would the industry you represent object to language being added to S. 1145 which would permanently end the practice of Congressional fee diversion from USPTO? If so, why?

Reply: The Biotechnology Industry Organization would have no objections to such language. In fact, BIO has long supported a permanent end to PTO fee diversion as a predicate to ensuring adequate PTO resources for patent examination, examiner hiring, staff training, and other measures that support patent examination quality.

2. The US Supreme Court has ruled on several recent cases that change the current environment for patent law, including the balance of power between patent owners and users and related protections for intellectual property. To what extent do such cases address the concerns that originally led to the call for patent reform legislation years ago?

Reply: These cases address many of the concerns that led to the call for legislative patent reform years ago. For example, three issues that were part of the early patent reform debate during the 109th Congress: permanent injunctions, standards for obviousness, and extraterritorial infringement, have all been addressed by the U.S. Supreme Court in its decisions in *eBay*, *KSR*, and *AT&T*, respectively. The courts continue to address questions of law that are part of the current reform debate. For example, recently the full U.S. Court of Appeals for the Federal Circuit issued its *Seagate* decision, which may well obviate the need for legislative reforms to the standards for willful infringement contained in the current bill. Moreover, we have every reason to believe that the Supreme Court will, in the not too distant future, take up the question of patentability of business methods. Far from permitting rampant confusion and uncertainty in the patent system (as some would portray the need for legislative reform), the Judiciary has demonstrated that it is fully willing and able to take up and dispose of even fundamental questions of patent law. We believe this process should be allowed

to continue before enacting drastic reforms in areas of the law better suited for judicial disposal, such as the law on patent damages.

2a. Wouldn't it be wise for Congress to consider reshaping S. 1145 to focus on improving patent quality and wait and see whether, and to what extent, these Supreme Court decisions rectify the perceived imbalances and quality concerns that led to calls for patent reform legislation?

Answer: We believe that, contrary to their stated purpose, many of the proposed legislative provisions in the bill have nothing to do with patent quality, and everything with making it harder to obtain patents, and - if they can be obtained - making it easier to invalidate them, and - if they can't be invalidated - making them cheaper to infringe. In our view, this is a very patent-hostile bill, there being hardly any provision that shifts the balance to the benefit of inventors and patent owners. Accordingly, we agree that Congress would indeed be well-advised to focus on those provisions on which there appears to be broad consensus, such as the transition from a first-to-invent to a first inventor to file-system that would harmonize U.S. patent law more with the laws of other industrialized countries and help U.S. businesses compete more effectively internationally, and patent quality measures such as ending PTO fee diversion and allowing more public participation and openness in the patent examination process.

3. The strict apportionment language limiting the potential calculation of any damage awards would allow a patent infringer to know up front the cost of infringement, which can be weighed against the cost of legally licensing the patented product or process. Doesn't this diminish the cost of infringement and make infringement just another business cost decision?

Answer: We do not believe that the damages provisions in the bill will allow litigants to gage with any more certainty the probable up-front cost of infringement than would be possible under current law. We strongly believe, however, that these provisions systematically under-value the commercial value of patented inventions – so that, seen this way, litigants will likely be able to predict, at least, that royalty awards will be significantly lower than they would be under existing law. Accordingly, by making infringement cheaper, infringement would indeed become just another business decision.
But the bill's damages provisions do more than that. By setting a new benchmark for monetary damages after patent infringement, these provisions really create a whole new standard for the valuation of patent rights: Making infringement cheaper will affect the normal commercial marketplace for licensing inventions, because anyone who might want to take out a license to a patent would rationally first ask whether it would not be cheaper to just infringe. Therefore, normal commercial royalties, offered during licensing negotiations, will also be lower

under the bill's provisions. Technology transfer from universities to the private sector, also a form of patent licensing, will be impacted. And thousands of already existing licensing agreements, where parties have already agreed by contract what they believe the technology that's being exchanged is worth, may need to be revisited in light of the bill's damages provisions. Seen this way, the bill's damages provisions do much more than reform the calculation of monetary compensation for infringement – at least for biotechnology, they will profoundly affect the way our industry has ordered its marketplace through technology licensing and technology transfer. In this kind of marketplace uncertainty, biotech innovation cannot flourish.

4. What evidence is there of a patent litigation crisis? Please provide objective data that shows the amount of patent litigation in the U.S., the number of patent lawsuits filed in each of the past three years, and the amount of litigation as a percentage of patents issued and as a percentage of R&D spending.

Answer: See our answer, below, to question 5.

5. A few recent cases have fueled the argument that legislation is needed to prevent "windfall" or very large licensing fees or damage awards. Please provide objective data that shows the dollar amount of license fees paid as a percentage of GDP for each of the past three years.

Answer: Please see attached a recent study by PriceWaterhouse Coopers, which, we believe, contains a good dataset that addresses you question.

5a. Additionally, please highlight any company that has identified large patent litigation damage awards or patent licensing fees as a "material risk" in their SEC filings?

Answer: We regret that we do not have these data available at this time.

6. S. 3818, the precursor to S. 1145, included provisions on "loser pays" for patent litigation attorney fees. Should such language be returned to the bill to help address allegations related to speculative litigation in the patent system?

Answer: BIO notes that a "loser pays" provision is inherently likely to have a stronger chilling effect on financially weaker litigants, and is therefore likely to favor the wealthier party to the litigation. The biotechnology industry is comprised mainly of smaller businesses which are barely able to fund their research and development activities, let alone assume the risk of approximately USD 3 – 5 million in additional attorney fees and litigation costs in patent litigation that could

be awarded to the prevailing party (this number is the current benchmark of what it costs to bring a complicated patent infringement action to conclusion). Accordingly, we had no objections to

Below, starting at question 12, please find our remaining answers to Senator Kyl's questions. I believe that concludes my performance for you today. I will now start drinking heavily, so please provide any feedback soon while I am still responsive.

KYL QUESTIONS:

1. One of the most controversial provisions of S. 1145 is its rearticulation of the standard for computing reasonable-royalty damages. Statements made by proponents and opponents of this provision suggest that the two sides do not disagree so much over the relevant principles as they do over the means of codifying those principles. It appears to me that both sides generally agree that reasonable-royalty damages should be calculated as follows:

> *First*, if the patented invention is the principal basis for consumer demand for the product, then the patentee should be awarded damages based on the entire market value of the product or process. Under no other circumstances should damages be based on the entire market value of the product or process.
>
> *Second*, if the entire-market-value test is not applicable, and market-based measures of a reasonable royalty – such as negotiated royalties paid for the same invention by third parties, or prices paid for non-infringing substitutes – are available, then those measure should be used to determine a reasonable royalty. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.
>
> *Third*, if neither the entire-market-value nor the market-based measures are applicable, then apportionment should be used to calculate damages. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.

Do you agree or disagree with this articulation of the principles that should govern the calculation of patent reasonable-royalty damages? If you disagree, please provide a specific explanation, or please suggest any other way in which you believe that this expression of the principles governing the award of reasonable-royalty damages should be modified.

In all cases, the overriding principle is that the court or jury should look to what the infringer would have paid for a license, and what the patent owner (claimant) would have agreed to accept, had they negotiated a license at the time the infringement began. For purposes of this determination, the infringer is assumed to be a willing licensee, the patent owner is assumed to be a willing licensor, and both parties are assumed to understand that the patent is valid, enforceable and will be infringed by the licensor's intended conduct. This "hypothetical negotiation" is a legal fiction that is used to assess the value of the use made of the invention by the infringer by looking to the then-prevailing market conditions that would have dictated the terms prudent business people would have agreed to. The kinds of factors that would have been taken into account in such a negotiation are generally summarized in the *Georgia Pacific* case (and are known as the *Georgia Pacific* factors).

In such negotiations, the two elements that are typically used to determine damages are the royalty rate, and the royalty base. The royalty rate is often, but not always, a percentage that reflects the relative importance of the invention to the product or process that has been shown to infringe. The royalty base is the economic value of the infringing product or process. Often, but not always, the royalty base is the total of the infringer's sales of the infringing product or process. Typically then, reasonable royalties are determined by multiplying the amount of the infringer's sales by the royalty rate. For example, it the infringement involves the sale of a complicated device incorporating a single patented feature, courts and juries will typically continue to use the total sales of the device as the royalty base, but use a very small royalty rate to fairly reflect the value of the use made of the invention. Using this approach, note that it is neither necessary to determine what drove the consumer demand for the device, nor to apportion the royalty base to the single patented feature. In the vast majority of patent case, therefore, neither the "entire market value rule" nor "damages apportionment" come into play.

The entire market value rule only comes into play when a party, usually the claimant, wants to expand the royalty base beyond that which is accused of infringement. In the example mentioned above, if the complicated machine consumes disposable products that are also supplied by the infringer, the claimant may endeavor to show that it is the incorporation of the patented feature in the machine that is driving the demand for such consumables. If the claimant is successful in doing so, the court or jury may elect to add the sales of the consumables into the royalty base to which the royalty is applied. Accordingly, the entire market value rule is not used, as suggested in the question, to justify collecting a royalty on the infringing product or process, but rather when the claimant shows that the royalty should be collected on the economic value of other, unpatented products that are provided to satisfy a demand created by the invention.

Damages apportionment only comes into play when a party, usually the infringer, wants to contract the royalty base to less than the totality of the infringing product or process. To do this, the infringer must show that the parties to the hypothetical negotiation would have agreed to a contracted royalty base for fair and legitimate business reasons. In the example mentioned above, if the complicated machine is customizable at the request of the infringer's customer, and many different versions are supplied that differ in respects having nothing to do with the invention, the parties might prefer a constant per machine payment to one based on a variable sales price. One approach to achieving this result might be for the court or jury to conclude that the parties would have agreed to a fixed dollar amount per machine. The other, which would involve damages apportionment, would be for the court or jury to determine a portion of the sales value of the machine that is attributable to the invention, and then to apply a royalty rate to just that portion of the infringer's sales. Which the court or jury would do will of course depend upon the trial strategies elected and persuasiveness of the evidence presented by the litigants.

Evidence of a regular and established royalty is one of the *Georgia Pacific* factors, that may be considered in arriving at the outcome of the aforementioned hypothetical negotiation. As in all tort cases, however, the settlement value of the cause is not normally considered probative evidence of the value of the claim if proven at trial. Accordingly, the value of a reasonable royalty sufficient to compensate for an infringement is normally greater than any regular and established royalty, as there is normally some settlement discount built into licenses entered to avoid litigation. Otherwise, infringers would be in a a "heads-I-win-tails-you-lose position with respect to the patent owner.

Even when evidence of a regular and established royalty is present, , the parties would, of course, still also look to the other *Georgia Pacific* factors, including, if applicable, the valuable additions or improvements that the licensee (infringer) independently made to its product, the business risks the licensee (infringer) undertakes in marketing the product, the cost of manufacturing and expected profit margins, the next best alternative that the licensee could use instead of the patented invention, other licenses that need to be obtained to commercialize the product, the cumulative royalty burden on the product – the list runs on and on.

Royalty negotiations, in the real world and in the judicial "hypothetical negotiation" context, are complex and so highly fact-specific that we believe that no codification can meaningfully lay out an analysis that can be fairly applied in every case. However, if we had to advance some general principles based on our experience with real-world biotechnology licensing negotiations, we have found that the royalty *base* to which parties agree in such negotiations is overwhelmingly some measure of sales of the entire commercial product into which the licensed invention is incorporated – even if the invention is only one of several components that make up the product. Some measure of sales of the entire product is the most practical and easily ascertainable royalty base for real-

world purposes, and should therefore be the appropriate default for a "hypothetical negotiation" for litigation purposes. The royalty *rate* is then adjusted to reflect what the licensed invention is "worth," given the commercial use to which it is put.

Accordingly, we believe that the default for starting a reasonable royalty analysis should be, as a royalty base, the economic value of the entire product that, as a marketable article or process, incorporates the invention. This royalty base reflects what parties would typically agree to in a normal commercial context, because it is the most practical and ascertainable royalty base. It is also a practical and unambiguous royalty base for litigation purposes, because the court has already determined that the accused product as a whole contains every element of the claimed invention. As a practical matter, the economic value of the entire infringing product can also more readily be determined than some other, fractional royalty base that only looks to the value of a patented component (which will often have no independent commercial value and cannot be sold separately).

Then, if the claimant shows that the royalty base should fairly be adjusted to include sales of convoyed or derivative goods, the court could deviate from the default royalty base. The burden of establishing the royalty base should be on the claimant, and the court's analysis should reflect, *ex ante*, using the "hypothetical negotiation" approach, what commercially reasonable parties would have agreed to at the time infringement began, assuming the patent to be valid and necessary for commercialization of the product or products, and both expecting to derive a reasonable profit. Consideration of all applicable *Georgia Pacific* factors would inform this analysis.

After establishing the royalty base, the court would proceed to setting the royalty rate (either as an ongoing royalty, or as a lump sum). Again, the *Georgia Pacific* and other factors would inform the court's search. Comparable licenses and common industry licensing practices could be considered, as well as the remaining patent life, the availability of next-best non-infringing alternatives, the reasonably acceptable cumulative royalty burden on the infringing product, and so on. Again, the burden of going forward and presenting evidence supporting a reasonable royalty rate should be on the claimant, subject to rebuttal by the infringer. One category of such rebuttal evidence could be the economic value of other elements, not invented by the patentee that the infringer incorporated into the infringing product.

The end result should be a royalty that reasonably reflects the royalty that would have resulted from a real commercial negotiation. We strongly believe that a flexible, but strictly *ex ante* "hypothetical negotiation" approach is the only feasible approach to take. Under this approach, it would not matter, for example, whether the infringed patent claim is drawn to "an improved windshield wiper," to "an automobile, comprising an improved windshield wiper," or to "an automobile

assembly plant capable of producing an automobile comprising an improved windshield wiper." The evidence introduced at trial should, and can, establish a rational approximation of what commercially reasonable parties would or would not have agreed to, had they negotiated a license. We are frankly not convinced that judges and juries are today naively awarding grossly inflated damages based only on the way patent claims are drafted.

2. Some advocates of patent reform have stated that the Federal Circuit has inappropriately broadened the criteria for applying the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. If you agree that the Federal Circuit has inappropriately broadened the criteria for applying this damages measure, please identify the cases in which it has done so.

Although the question (incorrectly in our view) presupposes that the entire market value rule relates to the demand for the patented product, as opposed to other non-patented products supplied to satisfy demand created by the invention (see above), we nonetheless do not believe that the Federal Circuit has inappropriately broadened the criteria for applying the entire market value rule. We believe Federal Circuit jurisprudence in this area, including its supplemental "functional relationship" test, reflects that damages determinations are today, by and large, more complex than when the law on apportionment and entire market value was first developed in the 19th century. We see this increased economic complexity in cases that deal with royalty claims on products that are related to - or downstream from - the infringing product, in cases where infringing products are marketed in complex bundling schemes inextricably linked with noninfringing products or services, or in cases that reach for surrogate royalties on complex articles that are produced using infringing processes or methods. Federal Circuit jurisprudence also reflects a change in underlying law: the leading cases on apportionment and entire market value were decided at a time when the predominant remedy in patent cases was disgorgement of the infringer's ill-begotten profits. In this context, an apportionment or entire market value analysis was often necessary to ensure that the infringer would not have to disgorge profits that were not fairly related to the infringed patent. The leading cases that are advanced for the proposition that the Federal Circuit has departed from Supreme Court precedent all stem from this era, most were decided in equity, and all address apportionment as a necessary precaution to avoid harsh results where an infringer who made valuable contributions to the accused product would be compelled to disgorge its entire profits. Under this regime, the burden was sometimes, rightly, shifted to the plaintiff to prove which portion of the infringer's profits were owed. See *Garretson v. Clark*, 111 U.S. 120 (1884)("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's *profits* and the patentee's damages between the patented feature and the unpatented feature...); *Westinghouse Elec. & Mfr. Co. v. Wagner*

Elec. & Mfg. Co., 225 U.S. 604 (1912)(holding that improvements added by the defendant contributed to the overall value of the accused product, and that "the burden of apportionment was then logically on the plaintiff, since it was only entitled to recover such part of the commingled *profits* as was attributable to the use of its invention."); *Dowagiac Mfg Co. v. Minnesota Moline Plow Co.,* 235 U.S. 641 (1915)(" In so far as the *profits* from the infringing sales were attributable to the patented improvements they belonged to the plaintiff, and in so far as they were due to other parts or features they belonged to the defendants."); *Whitney v. Mowry*, 29 F. Cas. 1102 (S.D. Ohio 1868)("[I]t would seem to be a pretty hard measure of justice in a court of equity, to say that the entire *profits* made on that large article should go into the pockets of the inventor and patentee of this small thing. . .").
Damages law today is far less harsh than it was in the 19th century; it no longer permits disgorgement of profits, and both parties to the litigation can normally expect to be left with no more and no less than a fair profit for each. It was in no small part due to persistent difficulties in fairly apportioning the infringer's profits under complex and counterintuitive rules - not unlike those proposed today - that the damages statute (35 U.S.C. 284) was changed in 1946 to the form we know today.[1] Cases from an era where, as a default, even innocent infringers stood to lose everything they had worked for are inapposite in today's hypothetical negotiation/reasonable royalty context, where, by law, a royalty may be no more than "reasonable."

3. In his testimony (at page 11), Mr. Squires suggested with regard to the entire-market-value rule that the committee should "ensure the market value is based overwhelmingly on the patent's specific contribution over prior art." The bill currently states that the patent's contribution must be the "predominant" basis for consumer demand for the product. Do you believe that "predominant" is the appropriate word to employ here? Would "overwhelming" be more appropriate? Would "principal" be more appropriate? Please explain your answer

We note at the outset that the "patent's specific contribution over the prior art" has no place in the proper determination of patent damages. The differences between the claimed invention and the prior art are determined as part of the *Grahm* test for patentability – a test that the invention has passed prior to the time any patent damages are awarded. Moreover, such differences are not relevant to what a willing-licensor would pay for a license to use the invention at the time the infringement began. Real world negotiations focus on the economic value to the infringer of using the invention as compared to his/her other commercially available, unpatented alternatives.

As to the application of the entire market value rule, Federal Circuit jurisprudence on the subject tends to articulate the standard to require that the "invention" be "the" basis for customer demand for the infringing product or process. As a practical matter, evidence introduced at trial often brings out the infringer's own representations as to the importance of the patented feature to the overall market value of the infringing product. For example, in *Bose Corp. v. JBL, Inc.* and *Fonar Corp. v. Gen. Elec. Co.* the Federal Circuit relied significantly on the infringers' own evaluation of the patented feature. In *Bose*, JBL's marketing executive had acknowledged that the improved bass performance made possible by the patented port tube was a prerequisite for JBL's decision to manufacture and sell the infringing speaker systems. Similarly, in *Fonar*, GE's own technical literatures and brochures highlighted the infringing technology as a significant advantage of its medical imaging system. Courts have also used an infringer's own internal profit projections for the infringing article at the time the infringement began. In *Interactive Pictures Corp. v. Infinite Pictures, Inc.*, the court affirmed a jury award of $1 million in lump sum payment based on projected sales figures obtained from the infringer's business plan created just two months before the start of the infringement. In the case of *Eolas Technologies Inc. v. Microsoft Corp.*, Eolas' patent claimed a method for running embedded interactive programs, such as "plug-ins," "applets," and ActiveX Controls, in a computer network environment. At trial, Eolas pointed to statements made by one of Microsoft's marketing executives that the most compelling feature that will cause customers to switch from Netscape to Internet Explorer was IE's support for ActiveX Controls. Rather than implementing an "all or nothing" rule that inquires only into overwhelming reasons for customers' purchasing decisions, courts should retain the ability to hear and take into account this kind of important evidence.

We also believe that courts should retain the ability to take into account the marketing and product development strategies of infringers. For example, if the infringer chooses to inextricably design an infringing feature into a highly integrated product that incorporates numerous other features and services, none of which can be purchased separately, then we believe it should not matter whether the patented feature is the "overwhelming reason" or only "a reason" why customers purchase the integrated product. As a practical matter, the infringer's own design and marketing strategies can, in such a case, make it impossible to parse the relative value of the infringing feature versus all other features of the product. The more features the infringer adds, the less likely a court is to find that any one feature is the "overwhelming" basis for customer demand. For such products, where the impossibility of parsing the value of different features is at least in part traceable to the infringer's own design decisions, we believe that a requirement that the patented feature be the "overwhelming" or "principal" basis for customer demand would impose an unfair burden on patentees to establish a fair damages case.

4. In some cases, courts appear to have applied the entire-market-value standard to measure damages, and then awarded the patentee only a small percentage of that value as the damages. Assuming that the entire-market-value test is the appropriate means of calculating damages in a particular cases, is this approach correct? For example, if the infringed invention is the basis for consumer demand for the product, is it appropriate for a court to award a percentage of the sale price of a product as the royalty, or should the court award the patentee all profits earned from the sale of the product?

As stated in our answer to question 1, above, we believe that the market value of the entire infringing product is generally the most practical and most easily ascertainable royalty base; it is also the base that parties would typically look to in a commercial licensing transaction, outside of litigation. Often, it is not reasonably possible to parse the royalty base to account only for the contribution of the patented component. For example, the patented feature may not be capable of being sold independently, and may not have any commercial value outside of the infringing context. Assume that a patent claims a new pharmaceutical excipient that confers longer shelf-life to several drug formulations that incorporate it. The patented excipient, in and of itself, has no intrinsic value, so that a willing licensor and licensee would naturally look, typically, to net sales of the *entire* final drug product as a royalty base. The haggling would occur over the royalty *rate*.

The problem of parsing the royalty base is exacerbated in some industries by extensive bundling practices, where products are often not sold separately, or consumers are not given a practical option for doing so. For example, to our knowledge Internet Explorer and Media Player are both bundled with Windows and cannot be purchased separately. Our experience as consumers also tells us that new home computers for retail sale are overwhelmingly marketed as single integrated systems that combine hardware, an operating system, embedded software, and various services and offers for services under pricing structures that would make it unreasonable to purchase all elements separately, if that were even possible.

Such extensive bundling of features, functional elements and services into single, integrated products may make good sense under some business models, and may benefit consumers in the form of convenient integrated package deals. From a patent perspective, however, the downside of choosing bundling as a marketing strategy lies in the fact that infringing products that are *sold* as single, integrated wholes also *infringe* as single, integrated wholes. Sometimes, it is the infringer's marketing and product development strategy that itself makes it impossible to rationally ascertain the specific value contribution of an infringing feature that has been inextricably designed into the overall product. In such situations, the only sensible approach is to use the economic value of the entire infringing product, in the form in which it is marketed, as the royalty base. The royalty rate should then be used, in a hypothetical negotiation context, to determine *ex ante* what the parties, as willing licensors and licensees, would

have agreed to be the economic value of the patented invention for the infringing use.
This does not mean, however, that excessive royalties are awarded in cases where multiple features and functionalities are marketed as a single product. The question's observation that the royalty rate is often small is correct. This is a reflection of the fact that the court and jury are normally capable of assessing the relative contribution of the invention to the whole of the marketed product, and lower the royalty rate accordingly in order to achieve a fair result. Accordingly, in such circumstances, it is not unusual for judges and juries to award royalties using rates of less than 1%.

5. If apportionment is used to calculate damages, should the infringer bear the burden of proving that his and others' contributions added value to the product and should be deducted from damages? Please explain your answer.

Yes. In our view, apportionment should come into play after the plaintiff has established that the accused product, as a marketable article, infringes the asserted patent. The burden up to that point is on the claimant to establish an entitlement to damages. On its face, the economic value (sales) of the infringing product, in the form in which it is sold, should be the royalty base to which the royalty rate is appied. We believe this to be a plain, simple, and practicable approach, supported by caselaw. At that point, if the infringer wishes to have the royalty base contracted to something less, the burden should shift to the infringer just like it would in any other affirmative defense to show, by apportionment, why a royalty should be owed on *less* than the infringing product. As a practical matter, if the infringing product is amendable to an apportionment analysis, such apportionment should be conducted by determining the value of the infringing feature in relation to the value of all the other features in the accused product. The infringer is perhaps in the best position to come forward with evidence of the relative value of the various contributions that were made to an infringing product than the party that actually manufactures and markets that product. Accordingly, we believe that the infringer should properly bear the burden of showing the value of contributions that should be deducted from the royalty base.
Of course, as stated in our answers to previous questions, we believe that a more practical and real-world approach would be to not artificially contract the royalty base, but instead to address the relative value of the patented feature by setting the royalty *rate* at an appropriate level in the context of an *ex ante* hypothetical negotiation.

6. The bill's articulation of the apportionment test as based on "the patent's specific contribution over the prior art" appears to require the trier of fact to determine what, if anything, the invention added to prior art. Given that, if the trier of fact is measuring damages, it has already decided that the patent is valid and infringed –*i.e.*, that it did add to prior art – doesn't the bill's way of articulating the apportionment test require the trier of fact to revisit questions that it

necessarily already decided when it found that the patent is infringed? If so, is this appropriate?

Yes, as mentioned above, the "specific contribution over the prior art" is not an issue relevant to the damages phase of a trial. In order to establish infringement, the patentee must prove that every single element of the patent claim is present in the accused product. When proceeding to the damages stage, the court would be invited to revisit the claim and determine on which of the already-litigated claim elements a royalty is owed. We believe it is neither fair nor appropriate to require a patentee to carry the burden of proof on each and every claim element, and then to base royalties only that part of the claim that represents an elusive "specific contribution over the prior art." This is especially true because, at some level, all inventions are combinations of new elements (albeit ones that have been put together in a new way), thus meaning that the "prior art subtraction" approach of the pending bills will systematically under value inventions for damages purposes.

7. Does the bill's "specific contribution over prior art" articulation of the apportionment test depart from current law? (If so, please cite cases that articulate the test differently.)

The bill's "specific contribution over the prior art" language does depart from both existing law and commercial practice. It would be an untried and untested concept in patent law, unsupported by statute and case law. *Georgia-Pacific* itself articulated the test, in factor 13, as the portion of the realizable profit that should be credited to the "invention," and variously uses the terms "patented invention," invention," and "patented specialty" when referring to the patentee's property right in its articulation of other factors. 35 USC 284 itself states that a reasonable royalty is the minimum measure of damages for the use made of the "invention." A review of modern case law reveals a remarkable paucity of cases in which an apportionment analysis was performed, especially in the reasonable royalty context, so that, other than as factor #13 set forth as "a list of evidentiary facts relevant, in general, to the determination of a reasonable royalty," we do not believe there exists a modern articulation of the apportionment test. *See Georgia Pacific v. United States Plywood,* 318 F.Supp. 1116, 1120. (S.D.NY., 1970). Leading 19th century apportionment case law, which we believe to be inapplicable to the reasonable royalty context for the reasons stated above, uses terms such as "patented feature," "patented improvement," or simply "invention" (see cases cited our answer to question 2, above). Our review of the case law indicates to us that, when conducting an apportionment analysis, courts have apportioned the value contribution of the *invention as defined in the patent claims* against the value of other features of the infringing product. We have not been able to identify a single case where a court has used a "specific contribution over the prior art" approach, or something like it, to define that which is to be apportioned.

(For all witnesses except Ms. Biberstein.)

8. In her testimony (page 9), Ms. Biberstein criticizes the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. She states:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

Do you agree with Ms. Biberstein that deducting all prior art would deny appropriate compensation to the inventor of a novel-combination invention? Please explain your answer.

(For Ms. Biberstein only.)
8. In your testimony (page 9), you criticized the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. You stated:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

If a combination truly is novel, nonobvious, and useful, wouldn't the whole be worth more than the sum of its parts? In other words, if the combination of prior art really did add value to a product beyond that which already existed in the prior-art elements when used separately, wouldn't the value added by the combination of elements (the added worth of the whole) remain once that prior art (the sum of the parts) had been deducted?

The problem with the bill's new language is that it replaces a multifactorial market-based value system for determining royalty damages with one that has no basis in, or logical relationship to, real world valuation of patent rights, and is, as the very least, fraught with uncertainty and ambiguity. The language appears designed to address combination patents, but is overinclusive as drafted and leads to unpredictable and bizarre results in other contexts. Assume, for example, three insulin products competing in the diabetes market: Products A, B, and C. The inventor chemically modifies the insulin molecule A to form the improved molecule A' and obtains a patent. The infringer launches a product containing A' and takes 20% of the market. Under current law, the patentee could seek a reasonable royalty on a relatively straightforward base of net sales of the infringing product.

Under the bill's "specific contribution" language, however, the inquiry would change. Courts would ask, as a threshold matter: just how much more valuable is the patented molecule A' compared to the unimproved molecule A? What is the value of the "specific contribution," i.e. the value of the chemical modification that was made? Surely we must somehow subtract the value of the base molecule A, as the bill specifically instructs us to. Should the court also look to products B and C, which are also prior art? Would the entire market value rule apply if 80% of all patients continue to use noninfringing alternatives? At the very least, the bill's language will lead to more litigation, expert battles, befuddled judges and confused juries.

Uncertainties also arise in the convoyed goods context. Assume an infringer markets a new drug formulation together with an infringing reusable applicator. The infringer sells the drug for $500 per course of treatment, and provides the infringing applicator for free. Under current law, the patentee could seek a royalty based on some measure of sales of the drug that is administered by use of the infringing applicator. The bill's language, however, instructs us to "ensure" that a reasonable royalty is applied only to the patent's "specific contribution over the prior art." Quickly, damages litigation would devolve into irrelevant disputes over the benefits of the patented applicator over preexisting applicator technology and over alternative modes of administering the drug.

In scenario after scenario, the bill's language leads us to confusing and bizarre results when applied in a biotechnology setting. In the aggregate, we strongly believe that the multiple prior art subtractions embedded in section 5 of the bill will lead to residual royalties that are no longer tethered to commercial realities. We also believe that, as a practical matter, section 5 of the bill will create tremendous pressure to apply the entire market value rule in attempts at circumventing the troublesome apportionment rule, thus further adding to the already enhanced litigation burden on both parties.

9. If you believe that the bill's "specific contribution over prior art" articulation of the apportionment test is inappropriate, please suggest alternative ways in which you believe that the test should be articulated.

We believe the default royalty base should be the economic value of the infringing product that, as a marketable article or process, incorporates the claimed invention. Apportionment should not be a threshold determination in every reasonable royalty determination. The royalty base can be expanded to cover functionally related other products or services of the infringer if the claimant shows that the claimed invention has created the market demand for such other products or services. Once that royalty base is established, the burden would shift to the infringer to show the economic value of features, elements or processes that the infringer separately contributed to or incorporated into the infringing product. That evidence would preferably be used to set a royalty rate that fairly recognizes the infringer's valuable contributions, but could be used to reduce the royalty base.

10. S. 1145 also requires that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages. Do you believe that the use of the language "specific contribution over prior art" is appropriate to identify that part of the invention that generates consumer demand when applying the entire-market-value test? If not, please suggest other language that you believe is appropriate.

We believe that the use of the terms "specific contribution over the prior art" suffers from the same problems in this context as it does in the apportionment context, for the reasons set forth in our answers to questions 6, 7, and 8 above.

11. Please identify any Federal Circuit decisions (other than those identified in your answer to question 2) that you believe adopt an incorrect legal standard for calculating patent damages.

For the reasons set forth in our answer to question 2, above, we believe that the Federal Circuit is taking an appropriate approach to the calculation of patent damages.

12. At page 7 of his May 18, 2007 letter commenting on S.1145, the General Counsel of the U.S. Department of Commerce endorsed some but not all of the bill's limits on the award of treble damages for willful infringement. In particular, he excluded from his endorsement proposed section 284(b)(3)(A) and (B), which create a defense to willfulness that the infringer had an "informed good faith belief" that the patent was invalid or was not being infringed. If you support this provision, please explain why you believe that this provision is appropriate. Do you believe that this provision goes beyond current law? If not – or if you believe

that it only adds to a defense that exists under current law – please cite any judicial decisions that articulate this defense in current law. Should the provision also require that the good-faith belief be a reasonable one? Are there any other limits that you believe should be placed on this defense?
BIO has in the past supported the bill's willfulness provisions, including its formulation of the "informed good faith belief"-standard. We note, however, that the full U.S. Court of Appeals for the Federal Circuit in its recent *Seagate* decision has clarified the standards that are applicable to a finding of willfulness, drawing into question whether these provisions, as currently included in the bill, will even be necessary going forward.

13. The Commerce Department GC's letter also excluded from its endorsement proposed section 284(b)(4), which requires that willfulness be plead only after the patent has been found to be valid and infringed, and which requires the court to make the finding of wilfulness. Do you support, oppose, or have no objection to this provision? If you support or oppose it, please explain why.
BIO supports this provision. We believe that courts should not focus on questions of willfulness before the underlying core issues of validity and infringement are resolved. Seen this way, this pleading limitation is based on a mootness theory that requires, appropriately, that all the necessary predicates under which willful infringement could be found must first be established before the litigation can proceed to willfulness itself. This limitation will serve to reduce litigation costs in cases where findings of invalidity or noninfringement are case-dispositive, and is commensurate with the reforms recommended by the National Academies.

14. It appears that the Federal Circuit's recent *Knorr-Bremse* decision precludes a trier of fact from drawing an adverse inference with regard to willfulness from the failure of an alleged infringer to obtain legal advice with regard to a patent. In light of that decision, is proposed section 284(b)(3)(C) of the bill necessary?
As stated in our answer to question 12, above, we believe that the Federal Circuit's recent *In Re Seagate* decision is, if anything, even more pertinent to this question. At this time, it is unclear whether the willfulness section of the bill is necessary in light of recent judicial developments, although a definitive answer will require more legal analysis.

15. In his testimony (at page 10) with regard to proposed section 284(b)(2)(B), Mr. Squires states that:

> While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice threshold.

Do you agree that proposed 284(b)(2)(B) should be modified to ensure that it describes "blatant copying" and not "mere notice?" Should paragraph (B) specify that, in addition to requiring that the infringer had knowledge of the patent, the infringer also must be aware of a substantial risk that his product infringes the patent? Should paragraph (B) require a showing that the infringer learned of the patented art from the patent itself or from a product licensed under the patent (or should it be a defense to an "intentional copying" finding that the infringer show that he learned the patented art from other sources)?

Under *In Re Seagate*, the current standard is no longer mere notice and negligence. The infringer must now have acted with recklessness, despite an objectively high likelihood that its actions constituted infringement of a valid patent. We believe that the *Seagate* decision is an excellent example of a judicial development that essentially moots significant aspects of long-going legislative debate. In fact, in light of this decision, it could well be asked whether Congress should let this new standard play out in the courts for a while before proceeding with willfulness reform.

16. Is there any other element of proposed section 284(b) that you believe inappropriately limits the award of treble damages? If so, please provide a specific explanation.

BIO has no particular objections to section 284(b) of the bill, but notes that recent judicial developments (*In Re Seagate*) raise the question whether this recent new judicial standard for finding willful infringement should be given more time to play out in the courts before proceeding with legislative willfulness reform.

(For Mr. Bernstein only.)

17. You stated in your testimony (page 9) that apportionment is only appropriate "if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate."

A. Assuming that market-based measures such as established royalties are unavailable, do you believe that apportionment should not be used unless the patented invention is only an insignificant and separable part of the overall product?

B. There presumably are a wide range of patented inventions that, while constituting more than an insignificant and separable part of the infringer's product, also do not constitute the principal basis for consumer demand for the product. Again assuming that market-based measures are

> unavailable, what measures do you believe should be employed to gauge royalties for inventions that fall within this range?

(For Mr. Bernstein only.)

18. You state in your testimony (page 12) that:

> A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention is novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention*, not merely a parsing of claim elements, that reflects the patent's contribution over the prior art.

What is the difference between showing that an invention is "novel" and showing that it makes a "specific contribution over prior art?" Your last sentence quoted above appears to suggest that merely the invention as a whole (rather than each of its claims) must add to prior art. Is this what you mean? If so, and if merely the "invention as a whole" (rather than each of its elements) must add to prior art, why should elements of the invention that do *not* add to prior art be considered when applying either apportionment or the entire-market-value rule? To state this question differently, to the extent that a validly patented invention includes elements that do *not* constitute a specific contribution over prior art, why should the patentee be compensated for such elements in an apportionment analysis – or be allowed to use the market demand generated by such elements to advocate for application of the entire-market-value rule to gauge the value of his invention?

(For Ms. Doyle only.)

19. At pages 7-8 of your testimony, you described a situation in which a patent plaintiff sued Palm on account of an allegedly infringing component in a Palm product, rather than the supplier of the component. You described this as "gaming behavior." Do you believe that it is always inappropriate for a patent plaintiff to sue a manufacturer who purchases an allegedly infringing component and incorporates that component into its product, rather than (or in addition to) suing the supplier of the component itself? Setting aside the specific case that you described, if a manufacturer does incorporate into its product a component that infringes a valid patent, it would appear to me possible that this manufacturer paid a lower price for the component because of that infringement – and thus profited from that infringement. In such a case, should the patentee be permitted to recover for that infringement from the manufacturer that purchased and used the component?

20. In his testimony, Mr. Dudas expressed concern about the PTO's ability to handle the volume of post-grant review petitions, particularly if (as in S. 1145) such review is available for patents granted prior to the enactment of such a procedure. In order to prevent the volume of petitions from overwhelming PTO's resources, would you favor the following limits on the post-grant review procedure? (Please explain your answers):

> A. A provision in the legislation that the post-grant review procedure shall not become available until the PTO certifies that it has sufficient resources to hear post-grant review petitions.
>
> B. A provision making PTO's exercise of post-grant review discretionary, akin to the U.S. Supreme Court's certiorari review. (Perhaps to be accompanied by a requirement that the PTO decide whether to hear a post-grant review petition within a specific amount of time.)

BIO favors neither provision, but instead favors a provision that would make the new proceeding available only on a prospective basis, i.e. for patents issuing from applications filed on or after the effective date of the act. We believe that such a provision will provide the PTO with sufficient time to promulgate regulations and prepare for the time when the first patents that could be subject to post-grant review issue, after which the numbers of proceedings would gradually, and naturally, ramp up.

21. S. 1145 requires that post-grant review be completed within 12 months, with a possibility of a six-month extension. Do you believe that this deadline is realistic – that the PTO will be able to abide by it in the large majority of cases – if the procedure that is implemented is identical to that in S. 1145 as introduced in the Senate? Do you believe that this deadline (or a longer deadline) would be realistic if the post-grant review procedure were limited as described in the preceding question?

BIO believes that the new post-grant proceeding can be completed within the proposed "12+6" timeframe, especially if the PTO is given sufficient time for "ramp-up" as proposed under our answer to the preceding question.

22. The post-grant review procedure proposed in S. 1145 does not apply a presumption of validity to patents reviewed in such a proceeding. Do you believe that this omission is appropriate or necessary? If so, why?

BIO believes that the proceeding must apply a presumption of validity and an evidentiary standard under which patents can only be invalidated on clear and convincing evidence in any "second window" proceeding – the only exception being claims that the patent owner her- or himself amended during the course of

the proceedings so as to place them in a form in which they have not previously been examined, and granted, by the patent office. The second window proceeding, if it were included at all in the bill, should only be available as an alternative to litigation. This means that the proceeding should only be available to parties who would otherwise have standing to bring a district court action, and once instituted, the proceeding should provide the same presumptions and evidentiary standards that would otherwise apply in district court. BIO wants people to use this proceeding because it is faster and cheaper than litigation, not because it provides an easier route to invalidate patents under lowered legal standards.

23. Under the post-grant review procedure proposed in S. 1145, a party challenging a patent is only estopped from raising those claims that he did raise before the PTO, not those that he could have raised.

A. Do you believe that this restriction on estoppel to claim preclusion (rather than issue preclusion) is appropriate or necessary? If so, why?

We do not believe this estoppel provision is appropriate. The post-grant proceeding must be conducted with the strongest evidence under the best legal theories available to the parties in order to result in a quality disposition. Accordingly, parties – if they decide to seek a post-grant proceeding - should be encouraged to bring their strongest case, and hold no arguments or evidence "in reserve" for later district court litigation.

B. It appears to me that under the post-grant review procedure as proposed in the bill, a party who wishes to challenge a patent and who knows of five bases to allege invalidity could assert only two of those bases in the post-grant review procedure, saving the remaining bases to assert in federal district court. Are such tactics possible under the procedure as proposed in the bill? Should the bill be modified to preclude such tactics, or are such tactics an acceptable price to pay for the advantages of not precluding a party that exhausts post-grant review from asserting additional validity challenges in district court?

We agree with your assessment. We believe that a stronger "could have raised" estoppel will provide a partial solution to this problem.

24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown. Do you believe that this limitation is appropriate or necessary? Please explain your answer. If you believe that this limit is not appropriate, please suggest an alternative proposal.
We note that, under the European opposition proceeding, claim amendments and substitute claimsets are liberally permitted. Claim amendments made to exclude newly-discovered prior art, for example, sometimes give rise to other inadvertent formal defects, such as those relating to sufficient written description support, or enablement, or vagueness, or proper cross-reference to other claims in the patent. Rather than relying solely on a vague "for cause" standard, we believe that patentees should be given more than just one opportunity to amend as of right during a post-grant proceeding, and to amend in a form other than just substitute claims.

25. If a patent challenge is pending in district court, and the alleged infringer commences post-grant review proceedings before the PTO, should the district-court action be stayed pending resolution of the post-grant review? Should such a stay be granted if requested by the patentee? Should any other restrictions be placed on such stays?

To permit or require a stay of ongoing infringement litigation after commencement of a post-grant proceeding would be a convenient way for accused infringers to stop the litigation in its tracks and delay enforcement of the patent. BIO would be opposed to such a provision, except if the stay is requested by or with the consent of the patent owner.

26. In his testimony (at page 15), Mr. Bernstein expressed concern about the breadth of the rulemaking authority that S. 1145 would grant to the PTO. For what purposes do you believe that the PTO needs rulemaking authority? To what subject matter should the rulemaking authority granted by this bill be limited?

The rulemaking authority provisions of the bill are poorly defined and have not been sufficiently justified. We are not sure for which purposes the PTO is believed to need this broad substantive rulemaking power and we prefer not to speculate at this point. BIO believes that every Federal agency should have no more and no less than the rulemaking powers it needs to meet its statutory mandate, and until there is a clearer justification for a broad grant of substantive rulemaking power, we urge that this provision be struck from the bill.

27. One concern expressed about the current patent-litigation environment is that a few bad actors send large numbers of letters asserting infringement or "inviting" licensing of their patents without conducting a reasonable investigation

as to whether the letter-recipient's product actually infringes their patents. (*See, e.g.* Doyle testimony at pp.6-7.) Would you support a provision requiring that a district court impose an appropriate sanction at the conclusion of an infringement suit if, on the motion of the defendant, the court found that no reasonable person skilled in the art would conclude that the plaintiff's patent was infringed by the defendant's product? Should such sanctions be paid to the defendant or to the PTO – and if to the PTO, should the district court be permitted to consider assertions of invalidity made against other parties and their products by the plaintiff?

We do not believe such a provision is necessary at this point, because current law already provides for sufficient sanctions for objectively baseless litigation.

1. In your testimony, you expressed concerns with how S. 1145 deals with the apportionment of damages issue. Do you disagree with the concerns expressed by other hearing witnesses that recent court decisions have resulted in inappropriately inflated damages? How would you address this issue? Do you believe that any change should be made to current law dealing with apportionment of damages? What would be the impact on your company, as well as the biotechnology industry, if the provisions as currently drafted in S. 1145 dealing with apportionment of damages were enacted into law?

Judicial damages determinations in patent cases are highly fact-specific and generally very complex. Without a thorough review of the record, and without having attended the proceedings to see and hear the parties' witnesses and evidence, we believe it is very difficult to comment on the *appropriateness* of damages verdicts, and we do not wish to substitute our conclusions for those of the deciding courts without being privy to the full basis for the verdicts and without awaiting such verdicts' appeals. With respect to the *size* of the awards, it is true that there has been significant media focus on large damages awards. However there is in our view little evidence that damages awards have, by and large, increased significantly in recent years. Prof. Janicke of the University of Houston Law Center found the median winning verdict in damages cases decided during 2005-2006 to be in the range of about $ 4.2 million, which is in the range of the costs of litigation. A recent PricewaterhouseCoopers study similarly indicates that damages awards, while subject to significant year-to-year fluctuation, appear to be level during the past six years.

If there need to be changes, it may be useful to create a thorough record for appellate review, under which courts must identify every relevant factor that was taken into account for damages determination. Under current law, jury verdicts will be set aside only if unsupported by substantial evidence or if they are grossly excessive or monstrous. This is a deferential standard difficult for appellate courts to review on fragmentary records, and it is therefore important that every damages case have a clear and complete record.

If enacted into law, the bill's royalty provision would have a very negative impact on Alkermes and the biotechnology industry as a whole. The provision appears to be drafted to address a perceived problem with determining royalty awards for infringing complex articles of manufacture. But as drafted, the provision is overinclusive and leads to absurd or paradoxical results when applied to biotechnology products, which ultimately devalues the intellectual property on which biotechnology businesses rely to finance the costly, and lengthy, development of their products.

2. S. 1145 extends additional rule-making authority to the Director at the USPTO. Do you believe that Congress is ceding excessive authority to the executive branch to create or make patent law? Can you elaborate on why this expansion of rule-making authority at the USPTO is problematic to your company and the biotechnology industry?

To our knowledge, the main argument that has been advanced for the grant of this new rulemaking power is that other federal agencies have such power. We believe that every executive agency should have no more and no less than the rulemaking authority it needs. Therefore, the need for plenary substantive rulemaking authority for the PTO needs to be justified with greater specificity than merely with a reference to other federal agencies. We also believe that there is a good reason the PTO does not currently have such rulemaking authority.

Even before Congress gave the Court of Customs and Patent Appeals (CCPA) exclusive jurisdiction over administrative patent appeals in 1929, appellate courts were tasked to ensure that the administrative patent examination process would be carried out fully consistent with the substantive provisions of the Patent Act. Patentability disputes, because they are related to rapidly-evolving technologies, often give rise to fundamentally new questions of law. In this respect, questions of patent law are different from other areas of the law. Under the Constitution, such questions are emphatically reserved for the Judiciary. More importantly, patentability disputes - and the new questions of law they engender - arise not only during the administrative process between examiners and applicants, but also in district court between private litigants. All such new questions of patent law are currently appealed to the U.S. Court of Appeals for the Federal Circuit (which replaced the CCPA in 1982), ensuring that patent law is applied consistently - no matter whether new legal questions arise in the PTO or in district court. To now give the PTO new, unfettered substantive rulemaking power, however, could compel the reviewing court to a level of judicial deference under which the PTO's interpretation of the Patent Act would often control the outcome of patentability appeals from the PTO. In appeals from district courts, however, new patent law questions would still be reviewed without deference. Such an appellate double-standard – deference to the PTO but no deference to district courts - can lead to inconsistent and bizarre applications of the Patent Act and would significantly shift the power to develop patent law from the courts to the agency.

In summary, we believe that this proposed delegation of rulemaking authority has not been sufficiently justified, can lead to unintended consequences and PTO mission creep, and will upset a long-standing and carefully-crafted legislative scheme that has long balanced the administrative task of examining patent applications against the judicial task of interpreting the Patent Act.

3. In your opinion, does S. 1145 improve the quality of patents? Does S. 1145 make the patent process more certain and predictable? How would you address the problem of patents of questionable quality? What is your proposal for a less costly and more efficient alternative to litigation?

We believe that the bill's expanded prior art submission and mandatory publication processes will benefit patent quality. Also, a first window opposition system under which

members of the public can seek patent quality review for a limited time soon after grant may benefit patent quality if accompanied by reasonable protections for patent owners against harassment. Any new proceeding should ensure that patents of questionable quality be reviewed soon after they are granted.

We also note that many of the quality problems that are being complained about arise not from a lack of statutory provisions, but from a lack of training and adequate allocation of resources at the PTO. Patent examiners have less than the equivalent of three workdays from start to finish to search and examine a patent application, and operate under significant production pressures that encourage hurried examination. In addition, extraneous legal pressures disincentivize applicants from helping examiners with the examination task. In this respect, we strongly believe that repeal or significant reform of the doctrine of inequitable conduct, which was excluded from S.1145, would go to great lengths in improving the quality of patent examination.

With respect to your question on alternatives to litigation, in our opinion there does not currently exist an administrative post-grant proceeding that is used as a true alternative to litigation. The reexamination proceedings, both *ex parte* and *inter partes*, are instead all too often used as tactical tools together with litigation. Leading up to and during litigation, challengers sometimes request multiple ex parte reexamination proceedings to maneuver the patent owner into a less favorable position for litigation. Inter partes reexamination, created in 1999 with the explicit goal of establishing an alternative to costly litigation, is equally subject to abuse as a litigation tactic. For example, 38% of all inter partes reexams brought between 2001 and 2005 were filed after patent litigation between the same parties had already begun (*See* Chen, 10 Comp. L. Rev.&Tech. J. 193, 2006), showing that this proceeding, to a very significant part, is not used *instead of* litigation, but *on top of* litigation, and sometimes even *after* litigation in attempts at undoing adverse district court judgments.

If one wanted a true alternative to litigation, one would have to apply the lessons learned from the currently-existing reexamination system and craft a proceeding that would have to be available only to parties who would otherwise be available to get into litigation with each other, under commercial circumstances that could otherwise give rise to litigation. The proceeding should have some of the protections otherwise available in court, such as a presumption of validity for claims in the form in which they were examined and issued. Challengers should have to choose whether they want to contest validity of the patent in the PTO or in court, but not both. Challengers should be encouraged to present their best case if they choose to bring a post-grant proceeding, and hold no arguments in reserve for later litigation. The goal should be to create a proceeding that is used because it is quicker and more economical than district court litigation – not because it can be used to invalidate patents on a legal basis that would be too weak to succeed in court.

4. One of the issues being discussed is whether the second window in a post grant review procedure could actually harm innovation because potential challengers of patents would wait to use the second window. Do you see this as a potential harm? Do you believe that a third party who has prior art that could be used to challenge a patent would more likely bring the challenge in the first window or wait until a second window?

The new post-grant proceeding would be cheaper than litigation, but not cheap in absolute terms. We expect the legal fees and costs of such a proceeding to easily exceed several hundred thousand dollars. At such costs, it would be economically irrational to challenge a patent without a good commercial reason. From a business perspective, companies could not justify such an expense of corporate funds without first establishing that the continued existence of the patent is likely to cause a significant economic harm. Accordingly, we believe that most corporate challengers would not bring a challenge anyway absent a likelihood of significant economic harm, and would wait until the second window. There will also be instances where competitors will rationally delay their challenge until the post-grant proceeding presents the greatest possible commercial threat to the patent owner, with the goal of extracting licenses to the patent on more favorable terms at that point. For these reasons, we believe it is likely that third parties who have prior art will generally wait until they have a true economical stake in the proceeding, which will often mean that such a proceeding is not brought until long after the first window closes.

5. Some feel that a first window does not provide them with enough notice to find patents they may want to challenge. If the mandatory publication of all patent applications at 18 months is enacted into law, do you believe that the period from publication until the ultimate issuance of a patent, plus the subsequent 9 month first window, would be sufficient enough time to identify patents that a third party may want to challenge?

The system should incentivize diligent and early surveys of the patent landscape. Mandatory publication would make patent applications available to the public long before these applications mature into patents. Current pendency times in the PTO easily exceed three years or more in many art units, so that together with a 9-12 month first opposition window, potential challengers would have between two and three years or longer notice to "do something" about a problematic patent. Even if the PTO in the coming years successfully reduces its backlog of cases and long pendency times, we are confident that, with a modicum of investment in patent due diligence, a first window-only system will provide sufficient time to identify potentially problematic patents and mount a challenge.

6. S. 1145 would amend the current inter partes reexamination process and estoppel provision. Do you support these changes? Do you believe that these provisions will help parties challenge a patent during its term before full blown litigation?

The inter partes proceeding would be made available for patents that issued on applications filed prior to November 1999, and would remove the "could have raised" estoppel according to which third party requesters cannot later assert the invalidity of a claim in district court litigation on grounds that they could have raised earlier during reexamination. The intent of the estoppel provision is to force parties to put on their best case during inter partes reexamination and to not hold legal or factual arguments "in reserve" for use in later district court litigation. It troubles us that it is now argued that this limitation should be removed – parties should indeed be incentivized to put on their best possible case in whatever forum they litigate. However, we believe that removal of

the estoppel provision may remove some parties' reluctance to bring inter partes reexamination proceedings, and may lead to more widespread use of this proceeding. Whether that will be for the better or worse remains to be seen, because the risk is real that inter partes reexamination requests could be used as a form of prodromal litigation in which challengers put on their "second-best" evidence in order to probe the patentee's legal position, build estoppel for later litigation, and generally test the strength and resolve of patent owners in preparation for later district court proceedings without any real downside for the challenger. Accordingly, removing this estoppel provision would require a significant leap of faith.

We are also troubled by making inter partes reexamination available for patents filed prior to 1999. Such applications were drafted and filed without notice that the resulting patents could ever be subject to this kind or reexamination. Opening up such patents to inter partes reexamination raises fundamental fairness- and ex post facto concerns, and should not be undertaken without additional safeguards.

Finally, in our view the current legislative discussion surrounding inter partes reexamination is somewhat premature. The proceeding was established only about seven years ago for patents issuing on applications filed after the effective date of the American Inventors Protection Act. It took several years for the first eligible patents to issue and the first requests for inter partes reexamination to be filed. The right to appeal to the U.S. Court of Appeals for the Federal Circuit was added for third party requesters only in 2002. Ever since, the use of inter partes reexamination has been growing rapidly, although the numbers of proceedings are still small in absolute terms. We believe more experience with this proceeding would be beneficial before concluding that it must be repealed and replaced with a second-window opposition system.

7. Chief Judge Paul Michel, of the U.S. Court of Appeals for the Federal Circuit, in letters to the House and Senate dated May 3, 2007 and June 7, 2007 (letters attached) expressed a number of concerns with the proposed patent reform bill, including apportionment of damages and interlocutory appeals. Could you discuss in detail how the problems identified by Judge Michel would impact the biotechnology industry?

We agree with Chief Judge Michel that mandatory apportionment would be a great strain on judicial resources in the majority of cases where such a step is unnecessary.

The same holds true with respect to the "interlocutory appeal" proposal contained in the present bill. This provision would create the right to appeal a district judge's claim construction order to the U.S. Court of Appeals for the Federal Circuit before the district court case can advance to core issues such as infringement or validity. We believe that this provision will do little to bring patent infringement litigation to conclusion and provide the parties with much-needed certainty. First, it is, in our view, illusory to expect the Federal Circuit to be able to quickly dispose of large numbers of claim construction appeals so that the underlying district court litigations can resume expediently. To the contrary, such appeals must be expected to clutter the Federal Circuit's docket with piecemeal appeals, bog down the appellate process, and hold up the underlying infringement suits for years. Second, this interlocutory appeal provision would be a godsend for litigants who, for one reason or another, might wish to protract the ongoing

infringement litigation for as long as possible. Plaintiffs with otherwise "weak" patents could maintain litigation pressure on defendants for much longer than would otherwise be possible. Conversely, defendants who are unable to build a strong defense case would be able to delay an inevitable finding of infringement for years by insisting on an interlocutory appeal. Parties would be less willing to stipulate to mutually acceptable claim constructions at the outset. Cases that could be disposed of at the summary judgment stage could be frozen pending lengthy appeals. Settlements, not uncommon in the wake of claim construction orders today, would be discouraged.

We are fully aware that no small percentage of claim construction orders are today reversed when patent cases are ultimately appealed from the district courts. This state of affairs is sometimes perceived as inefficient and fraught with uncertainty. However, we believe that now creating a right to immediately appeal such orders would create other, and vastly greater, inefficiencies and uncertainties in patent litigation, and that the time for a draconian interlocutory appeal-as-of-right has not yet come. We note that the appellate standard for review of claim constructions is the topic of ongoing and lively debate within the patent bar and the courts, and that experience over the past years has demonstrated that the Judiciary, given the right opportunity, will not shy from addressing even the most fundamental questions of patent law. In the case of the current interlocutory appeal proposal, with its vast implications on judicial economy, we believe that Congress should give the courts more time and enact no such provision at this time.

8. **In your opinion, does S. 1145 encourage innovation and investment that businesses need in order to flourish? How?**

At least for the biotechnology industry, the bill as a whole does not encourage innovation and investment. The vast majority of biotechnology businesses depend on the value of their patent portfolios for access to much-needed capital. For the reasons stated in our written testimony to this Committee, we believe that S.1145 would reduce that value, thereby removing investment incentives in biotechnology and ultimately adversely impacting our industry.

9. **In your opinion, does S. 1145 adequately protect small and independent inventors?**

It has been argued that the bill's first inventor to file-provisions create pitfalls for unwary or legally less sophisticated small inventors because the new system would create certain opportunities for "self-collision" whereby inventors could inadvertently destroy the patentability of their inventions through their own disclosures. We believe that these concerns can be addressed through a robust grace period and adequate inventor disclosure exceptions

In other respects, however, we believe the bill changes the patent system in ways that will significantly disadvantage financially weak patent owners such as small and independent inventors. The proposed post-grant opposition system, for example, would impose significant – and at times unbearable - financial burdens on small inventors who wish to defend their patents in such a proceeding. Other provisions, in the aggregate, change the patent system to the benefit of infringers generally: the reform of willful infringement, apportionment of damages, the lack of inequitable conduct reform and retention of the

outdated best mode requirement, an expansion of the prior user defense and changes to venue for patent cases, taken together, will make it harder and more costly for patent owners to enforce their patents. While we support fair and equitable patent reform including some of these elements, we believe that, under the current configuration of S.1145, many patent owners, including many small and independent inventors, will have neither the resources nor the financial staying power to ultimately prevail and enforce their patents against financially stronger competitors or infringers.

10. What is the impact of this bill on the American consumer? How does it help or hurt the American public?

One in 10 Americans over the age of 65 suffers from Alzheimer's disease today; more than 25% of people in this age group suffer from diabetes, more than 60% from arthritis, and more than 70% from hypertension – the list runs on and on. Many millions of patients today depend on products that were invented decades ago, and that would not have reached the marketplace without strong patent protection. For many Americans in their prime today, the age is not so far off when they themselves will come to depend on products that, at this time, are described only in patent applications. We believe that, in the long run, a robust patent system will be one of the best incentives for continued healthcare innovation which will sustain the hope for a steady stream of much-needed products that improve our health and enrich our lives. For the reasons stated in our written testimony to this Committee, however, we believe that the aggregate effect of the provisions of S.1145 will be the removal of incentives to invest in biotechnology product development and a decreased rate of healthcare innovation.

11. The agricultural members of the Biotechnology Industry Organization sent a letter to Congress on May 29, 2007 expressing concerns with S. 1145. (Letter attached) Specifically, how would S. 1145 impact agriculture?

The impact of S. 1145 on BIO's agricultural members will be similar to those of our healthcare focused members. S. 1145 will disincentivize investment in risky and lengthy R&D projects for all of the reasons set forth in our testimony. In addition, the United States' lead in the development and planting of biotechnologically-improved crops will be jeopardized as result of weakened protections, reduced monetary damages and constant threat of patent challenges. Innovative research into the development of innovative environmental products, clean and renewable biofuels, and disease-, pest- and drought-resistant crops will be diverted into less risky projects because there is little if any deterrence to infringement. Competitors would weigh the risk of infringing (reduced damages) against the potential for windfall profits from—for example, the next source of renewable energy, and may decide it is a decision worth making.

Farm yield, reduction of soil erosion and reduction of fossil fuel consumption will all be impacted negatively because of the threat of constant patent challenges and PTO authority and mandatory apportionment provisions. The vast majority of companies in

this sector are small, innovative businesses that do not yet have any products, and that depend on the patent system to commoditize the one thing they really have: their creativity, their platform technology, and their quick, smart ideas. Such companies depend on clear, predictable, and enforceable patent rights to attract the investment that they need during the long and risk-prone path of product development. Investors, however, will not invest where patent rights are uncertain and can easily be challenged.

Furthermore, agricultural companies constantly face unpredictable and patent-hostile systems in other countries. We are concerned that diminishing the value of a U.S. patent as some of the provisions currently under consideration would not only undermine the U.S. patent system and biotech innovation, but would open up the prospect of other countries following suit in denying adequate and effective remedies for patent infringement in the agricultural area.

Responses to Post-Hearing Questions Submitted to:

Mary E. Doyle
Senior Vice President, General Counsel and Secretary
Palm, Inc.

"Patent Reform: The Future of American Innovation"
Hearing Before the Senate Judiciary Committee
June 6, 2007

Written Questions Submitted by Senator Chuck Grassley:

1. At the hearing, with respect to post-grant review, you testified in favor of a second window. But if the law provides for a second window that allows a third party to challenge a patent at any time during a patent's term. Why wouldn't the third party wait until as late as possible to challenge that patent? With a second window available, wouldn't there be an incentive for a third party to wait on the sidelines and avoid spending money and resources to challenge the patent by waiting until and unless the patent owner brought the patent to their attention? What incentive is there for a challenger to use a first window? Wouldn't this change in law actually harm patent quality? How can patent quality be improved if there is no real, meaningful incentive to use a first window?

Palm is both a patent holder and a defendant in patent infringement lawsuits. We believe that the robust post-grant review procedures proposed in S.1145 would improve patent quality and reduce litigation costs, while also ensuring that patent holder's rights remain adequately protected.

It is our view that any third party would have a strong incentive to use the first window where possible. If a company becomes aware of a newly issued patent that might cover the company's products, there are several risks to waiting for the second window to challenge. First, and most importantly, by waiting to raise a challenge, the company only increases its potential exposure by continuing to accrue sales of possibly infringing product and continuing to invest in the development of products whose manufacture and sale may later be enjoined. Second, under current law, companies who are aware of issued patents and do nothing risk damages for willful infringement.

Further, immediate review benefits everyone. If the patent is upheld, the patent holder is placed in a stronger position. If the patent is invalidated, the patent holder has no opportunity to create an unwarranted perception that the patent is valid and valuable by extracting payments from vulnerable or litigation-averse companies in the meantime.

Even though there are incentives for a company to use the first window, the second window remains an important aspect of the post-grant review process for those of us who cannot anticipate all the ways that a patent may be interpreted by the patent holder or the courts. For example, as I have testified, Palm did not expect that its Treo smartphone product would be argued to comprise a "card" under a patent that would not otherwise have applied to our products.

2. How do you respond to concerns that the reforms contained in S. 1145 will only prolong the ability of patents to be attacked outside of the court process and will actually be disincentive for investment in new products?

There already is an administrative procedure to challenge a patent throughout its lifetime: reexamination. Post-grant review procedures would not change the ability of a party to challenge a patent outside the court process, but rather would provide a party a greater incentive to avoid litigation, which is far more expensive than post-grant review. To further encourage wider use of post-grant review, a narrower estoppel standard should be adopted as well. In a 2004 report to Congress, the United States Patent and Trademark Office noted that estoppel was "the most frequently identified inequity that deters third parties from filing requests for inter partes reexamination."[1] The new standard still will prevent challengers from re-litigating issues that have been raised during reexamination, but will no longer preclude raising any issue that "could have been raised" during the prior proceeding.

3. I've attached a June 7, 2007 letter to Congress from Chief Judge Paul Michel, of the U.S. Court of Appeals for the Federal Circuit, in which he states that "plucking limited language out of the long list of factors summarized in the Georgia Pacific case that may be relevant in various cases is unsatisfactory, particularly when cast as a rigid requirement imposed on the court, and required in every case, rather than an assignment of a burden of proof under a clear standard of proof imposed on the party that should bear that particular burden, and that would only arise in a rare case." He also states that the proposed legislation would require "a new kind of macroeconomic analysis that would be extremely costly and time consuming," and would result in severe court delays as well as increased attorneys' fees and costs. Do you agree or disagree with Chief Judge Michel's assessment? Why?

We respectfully disagree with Chief Judge Michel's assessment.

First, while apportionment is listed as but one of the Georgia Pacific factors, it has long been recognized as a key factor in determining a reasonable royalty. As one commentator noted:

---

[1] U.S. Patent and Trademark Office, Report to Congress On Inter Partes Reexamination, at 6 (2004).

> **[T]reating apportionment as merely one factor in the reasonable royalty analysis, which may be given more or less weight or ignored altogether, is insufficient to meet long-standing apportionment requirements. Simply put, if a patentee could not, historically, at least, collect the infringer's profits attributable to the nonpatented portions of the infringer's product and cannot recover lost profits on the nonpatented portions of its product, then it stands to reason that a patentee should not be able to collect a reasonable royalty on the nonpatented portions of an infringing product. Thus, apportionment should be a required part of every reasonable royalty analysis, not just a factor that may or may not be given any weight.[2]**

We also believe that the concern that additional analysis will be required of trial judges in applying apportionment is overblown. Currently, in order to find a patent valid, the court must analyze the prior art to determine the patent's novel and non-obvious contribution. S. 1145 correctly requires the court to focus on the value of that contribution. Further, the apportionment analysis set forth in S. 1145 is no harder (and at its base no different) than the market analysis already conducted by District Courts and reviewed by the Federal Circuit in cases based upon lost profits.

Congress is not writing on a clean slate here. It has long been the rule that "the burden of establishing the existence and extent of damages rests with the person seeking those damages."[3] The language in the bill correctly captures, albeit using slightly different words, pre-Federal Circuit law on apportionment. See Garretson v. Clark, 111 U.S. 120 (1884) ("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented feature, and such evidence must be reliable and tangible, and not conjectural or speculative); Westinghouse Elec. & Mfr. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604 (1912) (holding that improvements added by the defendant contributed to the overall value of the accused product, and that "the burden of apportionment was then logically on the plaintiff, since it was only entitled to recover such part of the commingled profits as was attributable to the use of its invention."); Dowagiac Mfg Co. v. Minnesota Moline Plow Co., 235 U.S. 641 (1915) ("the evidence, although showing that the invention was meritorious and materially contributed to the value of the [accused products], made it clear that their value was not entirely attributable to the invention, but was due in a substantial degree to the unpatented parts or features. . ."); Whitney v. Mowry, 29 F. Cas. 1102 (S.D. Ohio 1868) ("[I]t would seem to be a pretty hard measure of justice in a court of equity, to say that the entire profits made on that large article should go into the pockets of the inventor and patentee of this small thing. . .").

---

[2] Bensen, Eric E. and White, Danielle M., "Using Apportionment to Rein in the Georgia-Pacific Factors" (April 2007), available at http://ssrn.com/abstract=982897, pages 29-30.

[3] Bensen & White, note 2, at page 20, citing 3-43 Federal Litigation Guide § 43.16. See also *Garretson v. Clark*, 111 U.S. 120, 121 (1884), holding that "the patentee" must proffer evidence "tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented feature. . ."

Apportioning damages is no more difficult than the proof required today to determine the reasonable royalty. Rather than requiring "a new kind of macroeconomic analysis," S. 1145 creates a framework to focus the trial court on the appropriate measure of reasonable royalty damages without dictating how the court's analysis should be carried out. Because apportionment is already one of the Georgia Pacific factors, this analysis is not new to the courts. Further, the district courts have significant experience in developing analytical tools to assist them in these sorts of computations.

Palm faces both sides of this issue, as a patent holder and as an accused infringer. We do not believe that S. 1145 will significantly increase our litigation costs when we act as a patent holder. We do believe that S. 1145 will restore balance to the patent system by properly valuing inventors' contributions.

4. In your opinion, does S. 1145 encourage innovation and investment that businesses need in order to flourish? How?

Yes. Strong patent protection is a pillar of America's unparalleled economic success and competitiveness in the global marketplace. Palm relies on the patent system to protect its key innovations, its design freedom, and its most valuable intellectual property. At the same time, Palm has been subject to an increasing flurry of patent assertions and patent litigation, a majority of those assertions and lawsuits from non-producing patent owners holding patents of questionable merit.

S. 1145 works to nurture American business by modernizing our patent system and ensuring it is balanced. Companies, both large and small, are being forced to shift their resources toward legal costs and away from new innovations and jobs. At the same time, engineers are spending too much time thinking about patent law issues rather than focusing on good science, new products and imaginative solutions.

For example, the apportionment provisions of S. 1145 help limit excessive royalty awards and bring them back in line with fundamental patent precepts and economic reality. The money now spent settling and fighting speculative patent infringement lawsuits can be used instead in research and development.

As another example, the post-grant review procedure contained in S. 1145 will lead to better patent quality, which will benefit everyone – patent holders, patent users, and consumers. Greater certainty about the breadth and scope of patents reduces later litigation, and enables businesses to make better decisions about product development.

We also support the repeal of the so-called "Baldwin Rule," as set forth in 28 U.S.C. § 44(c) (1997), which limits the pool of candidates for Federal Circuit judges to only those who are willing to reside within a 50-mile radius of Washington, DC. Because

American businesses are located all over the nation, patents are a national issue. We believe that the broader perspective of judges from all over the United States would enhance decision-making at the Federal Circuit by bringing insights from technology centers from around the country.

5. What is the impact of this bill on the American consumer? How does it help or hurt the American public?

We believe that S. 1145 would help the American consumer. Elements of our patent law create uncertainty and undue risk for innovating companies, deterring them from developing new products and entering new markets. Consumers are shouldering mounting costs created by these risks and uncertainties, in addition to excessive licensing fees that can be demanded in the current patent environment, as well as litigation costs and exorbitant damage awards. In today's system, consumers are harmed by hidden "technology taxes." Companies may choose to avoid adding new technological features or even remove desirable but relatively less costly features from their products in order to avoid putting the entire profit of their product (and more) at risk.

S. 1145 helps restore balance to the patent system. Patent holders would still be entitled to license their inventions, but would not be able to use the threat of exorbitant damage awards to "tax" product companies (and, consequently, consumers) well beyond the legitimate value of their inventions. Further, patent holders would be incentivized to approach the component vendor – the actual infringer of their invention – rather than the downstream company that incorporates that component into its product. Knowing that more revenue can't be had from the downstream company that sells the more expensive product provides an incentive to the patent holder to approach the real infringer (and the entity most knowledgeable about the value of the implicated technology) and negotiate reasonable licensing fees. Thus, the price of the patented invention will be incorporated into the price of the allegedly infringing component, and downstream companies are able to focus more of their resources on research and development and lower prices to consumers.

Written Questions Submitted by Senator Tom Coburn:

1. Would the industry you represent object to language being added to S. 1145 which would permanently end the practice of Congressional fee diversion from USPTO? If so, why?

As a member of the Coalition for Patent Fairness, which represents many different industries, we would support language being added to S. 1145 that would permanently end the practice of Congressional fee diversion from the USPTO.

2. The U.S. Supreme Court has ruled on several recent cases that change the current environment for patent law, including the balance of power between patent owners and users and related protections for intellectual property. To what extent do such cases address the concerns that originally led to the call for patent reform legislation years ago?

The Supreme Court has taken up more patent-related cases this term than it has in many years, a strong signal of the high court's concerns about the patent system. Moreover, in each of its recent patent rulings, the Justices decided overwhelmingly for the position taken by proponents of reform.

Even with these rulings, however, none of the issues addressed in S. 1145 have been resolved (or even addressed) by the Supreme Court's recent patent decisions. Further, none of these issues are pending before the Supreme Court, or are likely to be before the Supreme Court any time in the foreseeable future. Thus, the only practical way to achieve the changes contemplated by S. 1145 is through this legislation.

2a. Wouldn't it be wise for Congress to consider reshaping S. 1145 to focus on improving patent quality and wait and see whether, and to what extent, these Supreme Court decisions rectify the perceived imbalances and quality concerns that led to calls for patent reform legislation?

No. All stakeholders in the U.S. patent system, including the USPTO, agree that patent quality has deteriorated in recent years. Consequently, patents that should never have issued in the first place likely will be the subject of litigation in the near future. Absent the litigation reforms proposed by S. 1145, companies like Palm will continue to suffer under the significant financial burden occasioned by the current inequities in the patent enforcement system.

In any case, Congress is far better equipped than the Supreme Court to make the comprehensive changes addressed in S. 1145. The Supreme Court can only address the issues before it in a particular case. It could take years for appropriate cases to reach the Court and even then all issues wouldn't be resolved. For example, the Court does not have the power to change the review process in the USPTO. For

these reasons, we do not believe that American competitiveness can afford the wait and see approach.

3. The strict apportionment language limiting the potential calculation of any damage awards would allow a patent infringer to know up front the cost of infringement, which can be weighed against the cost of legally licensing the patented product or process. Doesn't this diminish the cost of infringement and make infringement just another business cost decision?

We do not believe that restoring balance to the patent system will encourage infringement. The scenario proposed by the question, i.e., choosing to infringe rather than take a license, would be a willful infringement issue under S. 1145, and would likely result in triple damages and an award of attorneys' fees and costs. S. 1145 instead corrects perverse incentives in today's patent system that motivate patentees to assert their patents at a point in the customer value chain far downstream from the manufacturer of the allegedly infringing component. S. 1145 also addresses the very real abuses of our system that result in royalties to patent holders far in excess of a patent's actual inventive contribution.

In today's world, products such as Palm products can be made up of hundreds if not thousands of different components. The question is whether a patentee holding a patent on only one of those many components should be entitled to a royalty based on the value of the entire product rather than the value of the component in question. Under current law, patentees argue that they are entitled to assert a patent at any point in the value chain, no matter the relative contribution of the patented invention. The current system therefore incents patent holders to assert their patents at the point in the chain where an integrated product has achieved its highest valuc, typically the end of the chain. This result makes economic nonsense for several reasons. First, a patentee that receives a royalty calculated based on the value of the entire product rather than his own invention receives value attributable to the inventions of others, a result fundamentally unfair and entirely inconsistent with the objectives of patent law. Second, if the holder of a patent on one component is entitled to a percentage of the entire value of the product, so are the holders of patents on each of the other components. Royaltics calculated on this basis could easily exceed the entire value of the product, and certainly the amount of any profit. This result defies any logic, as it should be impossible by definition for the value of the inventions comprising a product to exceed the fair market value of that product.

In Palm's view, S. 1145 rightly establishes an apportionment standard for calculating damages based on the actual value of the patented invention, not the value of a whole product. Apportionment would also provide the correct incentive for the patent holder to pursue the actual infringer since it could recover a larger portion of any misbegotten profits from that component. Take, for example, a patented computer modem. Under current laws, if a patent holder alleges infringement of the modem patent, it may demand reasonable royalty damages

based on the value of the entire computer. This threat of artificially high damages encourages litigation, premature settlements and distorts the value of patents.

It is important to note, however, that S. 1145 provides a flexible framework for the calculation of damages. In addition to setting out a proper standard for apportionment, it also recognizes the real possibility that a particular patent may be the market driver for the consumer demand for the product it sells. S. 1145 therefore codifies the entire market value rule, which would calculate the royalty in such a case based on the value of the entire product. Finally, the same damages provision permits a judge to consider any other relevant factor in considering the appropriate measure of damages for the trier of fact to consider.

4. What evidence is there of a patent litigation crisis? Please provide objective data that shows the amount of patent litigation in the U.S., the number of patent lawsuits filed in each of the past three years, and the amount of litigation as a percentage of patents issued and as a percentage of R&D spending.

Palm to date has not conducted the research necessary to answer this question for the U.S. as a whole. We can testify as to our own experience, which demonstrates that companies like ours, whose products are at the end of the customer value chain, face substantial and increasing patent litigation. As of January, 2000, only one patent litigation case was pending against the company. In the subsequent seven years, the company has been sued 19 times more for patent infringement, 11 of which cases were filed in the last three years.

5. A few recent cases have fueled the argument that legislation is needed to prevent "windfall" or very large licensing fees or damage awards. Please provide objective data that shows the dollar amount of license fees paid as a percentage of GDP for each of the past three years.

The vast majority of licensing data is not public, and is unavailable to Palm. In addition, licenses often are difficult to value, because they may involve corporate-wide patent cross-licenses or other "soft" provisions that do not involve money changing hands. Thus, Palm is not able to respond to this inquiry.

5a. Additionally, please highlight any company that has identified large patent litigation damage awards or patent licensing fees as a "material risk" in their SEC filings?

Many companies doubtless have identified patent litigation as a material risk, including Palm, RIM and Symbol Technologies, but Palm to date has not conducted the substantial research necessary to provide a comprehensive response to this question.

6. S. 3818, the precursor to S. 1145, included provisions on "loser pays" for patent litigation attorney fees. Should such language be returned to the bill to help address allegations related to speculative litigation in the patent system?

No. We do not believe that "loser pays" provisions should be included in S. 1145. Although there may be some speculative litigation that might be discouraged by such a provision, the fact that the overwhelming majority of cases are settled before a verdict leads us to believe that on the whole a "loser pays" provision would primarily serve to ratchet up settlement demands and, consequently, settlements. As a defendant, a party would have to include in its risk calculation the potential liability attributable not only to any damages for infringement, but to the millions of dollars in legal fees that would be expended by both parties in pursuing the case. That would have the effect of pushing settlement amounts up. Also, smaller patent holders may be discouraged altogether from pursuing legitimate claims because of the additional risk involved from an unsuccessful suit.

We believe that, rather than increasing the stakes for the loser, a better and fairer balance is struck by reducing the possible windfall to a winning plaintiff by more accurately reflecting the real economic value of the plaintiff's patent. If the chances for an enormous windfall are reduced through apportionment, as implemented in S. 1145, this would have the desired effect of reducing speculative patent litigation, without the "loser pays" effect of penalizing a party, acting in good faith, who loses the litigation.

Written Questions Submitted by Senator Arlen Specter, Ranking Member:

1. In a letter to Chairman Leahy and Senator Hatch, Chief Judge Michel stated that requiring the trial court to determine as a preliminary matter the economic value properly attributable to the patent's specific contribution over the prior art is unworkable and will flood the court with expert reports. Isn't it fair to say that the economic value that an invention adds to an infringing product is normally determined by comparing the infringing product to pre-existing competitive products, not to the "prior art?"

The increased value of a new product over pre-existing competitive products is typically attributable to many factors other than the inclusion of a single patented improvement. Apportionment focuses on the value of the improvement alone, which is generally all that the patent holder should benefit from. In the rare case where a patented improvement is so significant that it is the predominant basis for market demand for the infringing product or process, S. 1145 allows the patent holder to use the entire market value to compute a reasonable royalty.

The court must already analyze the prior art in order to determine validity of the patent at issue. And trial courts currently hear expert testimony to determine damages, so S. 1145 should not create new problems in that regard either. Further, juries have shown that they are capable of understanding complex damage analyses in other contexts with the proper instructions from the judge. We believe that juries will similarly be able to understand and apply apportionment.

2. Your testimony mentions that effective post issuance administrative review procedures are widely available in other countries. Would you expect foreign companies to make heavy use of post-grant review procedures of S.1145? What effect do you think this might have on American competitiveness?

Just as U.S. companies now take advantage of the post-grant review procedures available in other countries, including in Europe and Japan, we would expect foreign companies to use the post-grant review procedures in the United States. American and foreign companies would be on equal footing. However, because American companies face a large burden from the threat of expensive litigation, we would expect the wider availability of post-grant review, which is more efficient and cheaper than litigation, to benefit American competitiveness.

3. **(On the Post-Grant Review.)** I understand that other international patent regimes, such European Patent Office, have an opposition period where there is only a single window to challenge a patent post-issuance and do not have any alternative means of challenging or correcting a patent such as our reexamination or reissuance process. Why then should the U.S. create a post-grant process with a "second window," if a single window would more closely harmonize our system internationally?

The United States has a massive amount of (generally more expensive) patent litigation compared to Europe or other countries. The second window provides a cheaper, more efficient alternative to litigation that will benefit U.S. companies significantly. It is to everyone's advantage to weed out poor patents; doing so in a way that is better and cheaper than litigation is just common sense.

4. The current venue language does not address declaratory judgment actions. Do you think that these are subject to forum shopping in the same manner as infringement suits? If so, should Congress include venue language for declaratory judgment actions?

Palm agrees that declaratory judgment actions and infringement suits should be treated the same with respect to venue.

5. How many claim constructions do you think the Court of Appeals for the Federal Circuit considers on appeal of dispositive motion, such as in the summary judgment motion that you discuss in your testimony? If there is no jury trial, which means that there were no genuine issues of fact, how would interlocutory appeal have affected your costs?

In our experience, cases decided by dispositive motion are typically appealed, regardless. If claim construction is key to a dispositive motion, the claim construction (which is reviewed *de novo* by the Federal Circuit) would certainly be among the issues appealed under present law. Thus, if claim construction can be resolved before a decision on a dispositive motion, any appeal of a decision on the dispositive motion would be greatly simplified to the extent it did not include claim construction issues. Further, courts could avoid the potential increases in costs by combining Markman and summary judgment proceedings, as some courts presently do.

Even if interlocutory appeal of claim construction might increase costs where there are no genuine issues of fact, the costs in jury trials would be greatly reduced. Given that the Federal Circuit reverses claim construction decisions nearly half the time, a jury verdict stands a good chance of being vacated because of a claim construction decision made much earlier in the process, requiring the time and expense of a new trial. We believe that the savings in time, money, and judicial resources justify interlocutory appeals of claim construction rulings.

6. Given that settlement negotiations do not begin in earnest until after the court issues its Markman order, would not interlocutory appeals as a matter of right push back when parties begin to engage in settlement negotiations by a year or more as it works its way up to the Court of Appeals for the Federal Circuit?

Settlement negotiations often begin well before the Markman order and are not infrequently concluded before the Markman hearing. Given the high costs of continued litigation, parties have a strong incentive to discuss settlement throughout the process.

7. The National Academy of Science, the ABA, and the American Intellectual Property Law Association all recommend repeal of the "best mode" requirement. Since this is the most subjective element in any validity assessment should Congress include such repeal in any patent reform bill?

The best mode requirement has its purpose in the patent law. Palm takes no position on this issue.

8. The National Academy of Sciences recommends amending the defense of unenforceability. There was a language on this point in both the House and Senate patent reform bills considered during the 109th Congress but not this Congress. Do you believe that Congress should address the questions of unenforceability?

Palm takes no position on this issue.

Written Questions Submitted by Senator Jon Kyl:

1. One of the most controversial provisions of S. 1145 is its rearticulation of the standard for computing reasonable-royalty damages. Statements made by proponents and opponents of this provision suggest that the two sides do not disagree so much over the relevant principles as they do over the means of codifying those principles. It appears to me that both sides generally agree that reasonable-royalty damages should be calculated as follows:

> *First*, if the patented invention is the principal basis for consumer demand for the product, then the patentee should be awarded damages based on the entire market value of the product or process. Under no other circumstances should damages be based on the entire market value of the product or process.
>
> *Second*, if the entire-market-value test is not applicable, and market-based measures of a reasonable royalty – such as negotiated royalties paid for the same invention by third parties, or prices paid for non-infringing substitutes – are available, then those measure should be used to determine a reasonable royalty. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.
>
> *Third*, if neither the entire-market-value nor the market-based measures are applicable, then apportionment should be used to calculate damages. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.

Do you agree or disagree with this articulation of the principles that should govern the calculation of patent reasonable-royalty damages? If you disagree, please provide a specific explanation, or please suggest any other way in which you believe that this expression of the principles governing the award of reasonable-royalty damages should be modified.

Palm disagrees with this articulation, both with respect to some of the language employed and the order of the proposed calculation. Fundamentally, we believe that a patentee should be entitled to a reasonable royalty based on the economic value properly attributable to the patent's specific contribution over the prior art.

As I've mentioned previously in my testimony, our belief is founded on several principles. First, a patentee that receives a royalty calculated based on the value of the entire product rather than his own inventive contribution receives value attributable to the inventions of others, a result that is fundamentally unfair and entirely inconsistent with the objectives of patent law. Second, if the holder of a patent on one component is entitled to a percentage of the entire value of the product, so are the holders of patents on each of the other components. Royalties calculated on this basis could easily exceed the entire value of the product, and certainly the amount of any profit. This result defies any logic, as it should be

impossible by definition for the value of the inventions comprising a product to exceed the fair market value of that product.

It follows, then, that apportionment should first provide the framework for the calculation of the multiplicand against which a reasonable royalty rate is then applied.

The next step in the process should be to determine the royalty rate. Numerous factors may be relevant to this analysis, including negotiated royalties paid for the same invention or prices paid for non-infringing substitutes.

And finally, if it is determined by the trier of fact that the principal determinant of consumer demand for the product is the patent's specific contribution over the prior art, then S.1145 provides for application of the entire market value rule.

In terms of the language employed in the formulation, Palm believes it important to focus on language such as that employed in the bill, namely, economic value properly attributable to "the patent's specific contribution over the prior art" versus language with a completely different meaning—"patented invention." In what looks like mere semantics lies a significant substantive difference. Specifically, due to new and evolving claiming conventions, the scope of a claimed invention may extend well beyond the novel element to include an entire product. For example, a novel modem may be claimed as a modem incorporated into a conventional computer, rendering the computer itself as part of the patented invention, though it is not in and of itself novel. In this example, the words "patented invention" are no longer synonymous with the novel element.

2. Some advocates of patent reform have stated that the Federal Circuit has inappropriately broadened the criteria for applying the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. If you agree that the Federal Circuit has inappropriately broadened the criteria for applying this damages measure, please identify the cases in which it has done so.

The problem is not so much that the Federal Circuit has broadened the criteria for application of the entire market value rule. Rather, as noted in the answer to Question 1, the problem arose with a new claiming convention. Hence, while "patented invention" has historically been synonymous with that which comes within the scope of the claim, new claiming tactics brought much more within that scope than was traditionally the case. With claim scope now often coextensive with the product that is sold in the marketplace, the courts no longer had to decide whether to apply an "entire market value" assessment to ascertain how much of the product's value was attributable to patented features as opposed to unpatented features. Everything in the product was a patented feature.

3. In his testimony (at page 11), Mr. Squires suggested with regard to the entire-market-value rule that the committee should "ensure the market value is based

overwhelmingly on the patent's specific contribution over prior art." The bill currently states that the patent's contribution must be the "predominant" basis for consumer demand for the product. Do you believe that "predominant" is the appropriate word to employ here? Would "overwhelming" be more appropriate? Would "principal" be more appropriate? Please explain your answer.

Current law requires that the patented invention be more than just "a" basis for consumer demand. This is clear from both Supreme Court and Federal Circuit precedent:

> **The patentee . . . must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.** [4]

Similarly, the Federal Circuit has articulated the basis for the entire market value rule as applying "where the patent related feature is the basis for customer demand." [5]

While Congress could argue at length over the choice of "predominant" or "overwhelming", the use of either of these objective terms ensures clarity in the application of the entire market value rule. Palm, however, does not believe the less objective term of "principal" is appropriate.

4. In some cases, courts appear to have applied the entire-market-value standard to measure damages, and then awarded the patentee only a small percentage of that value as the damages. Assuming that the entire-market-value test is the appropriate means of calculating damages in a particular cases, is this approach correct? For example, if the infringed invention is the basis for consumer demand for the product, is it appropriate for a court to award a percentage of the sale price of a product as the royalty, or should the court award the patentee all profits earned from the sale of the product?

The entire market value rule is simply a tool to decide how much to include within the damages base. If an apportionment analysis suggests that only 20% of the economic value of a product is attributable to the "patent's specific contribution over the prior art," then only 20% of the product's value should be included in the damages base. If application of the entire market value rule suggests that the patent's specific contribution over the prior art is the reason why customers buy the product, then 100% of the product's value should be included in the damages base. In either case, the "damages base" is the multiplicand against which the applicable royalty rate is multiplied. The result is the reasonable royalty awarded as damages for the infringing sale of that product. A "percentage of the sale price of a product as a royalty" is precisely what a reasonable royalty is.

---

[4] *Garretson v. Clark*, 111 U.S. 120, 121 (1884).
[5] *Imonex Servs. v. W.H. Munzprufer Dietmar Trenner GmbH*, 408 F.3d 1374, 1379 (Fed. Cir. 2005).

Further, it is also well settled law that generally speaking royalty damages must leave the infringer with a profit:[6]

> **GP asserts, and the court below appears to have accepted, the proposition that under the willing buyer-willing seller rule a reasonable "royalty must be fixed so as to leave the infringer, or suppositious licensee, a reasonable profit." . . . Even if a small degree of profit is added for collateral sales in order to justify the court's subsequent finding that "GP's reasonably expected rate of profit on the sale of striated fir plywood would have been $50.00 per thousand square feet," id. at 1141, n2 the royalty imposed still gobbles up all of GP's expected profit. We also note that the trial court's $800,000 award more than encompasses the $685,837 which the Master found to be GP's actual profits. . . . Thus, although we affirm the other findings, we feel that despite the trial court's professed intention to do so, it did not allow GP a reasonable profit after paying the suppositious royalty.**[7]

What that reasonable royalty should be will depend on a host of factors, such as prior licensing fees received by the patentee, the extent to which the infringer has used the patented invention, and the nature and benefits of the patented invention. Sometimes it is a small percentage of the total value of the product.[8]

5. If apportionment is used to calculate damages, should the infringer bear the burden of proving that his and others' contributions added value to the product and should be deducted from damages? Please explain your answer.

No. We see no reason for adopting a different rule in patent cases than in other civil cases. As noted in the answer to Question 3, above, the Supreme Court has held that the burden of proving damages belongs on the patentee as the claimant. In analogous business torts such as antitrust, the antitrust claimant bears the burden of proving what damages arise from the defendants' unlawful conduct and what losses were attributable to other factors.[9]

6. The bill's articulation of the apportionment test as based on "the patent's specific contribution over the prior art" appears to require the trier of fact to determine what, if anything,

---

[6] Under the current statute, a patentee can never recover the profits earned by the defendant. Under section 284, a patentee can only recover either its lost profits, or if it cannot show that it lost profits, then its damages are a reasonable royalty. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 506-07 (1964) (plurality opinion); *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1442-43 (Fed. Cir. 1998).

[7] *Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295, 299 (2d. Cir. 1971).

[8] Mark A. Lemley and Carl Shapiro, Patent Holdup and Royalty Stacking, Stanford Law and Economics Olin Working Paper, No. 324 (2007) to be published in the 2007 University of Texas Law Review (http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1066&context=iber/epc).

[9] *See Blue Cross & Blue Shield United v. Marshfield Clinic*, 152 F.3d 588, 592-93 (7th Cir. 1998).

the invention added to prior art. Given that, if the trier of fact is measuring damages, it has already decided that the patent is valid and infringed –*i.e.*, that it did add to prior art – doesn't the bill's way of articulating the apportionment test require the trier of fact to revisit questions that it necessarily already decided when it found that the patent is infringed? If so, is this appropriate?

The issues underlying infringement, validity and damages are closely related, and the court will lose nothing by making reference to earlier findings in order to make a subsequent finding. For example, infringement lies if the accused product incorporates every element of the claim; a patent claim is invalid under Section 102 if a single reference discloses every element of the claim; and a claim is invalid under Section 103 if the "subject matter as a whole" would have been obvious to the person of ordinary skill in the art. Coming to conclusions on infringement and validity requires a detailed analysis of the accused product and of the asserted prior art. All of that will inform any assessment of precisely what it is in the patent that amounts to an improvement over the prior art as well as a determination of appropriate damages.

We believe that the concern that additional analysis will be required of trial judges in applying apportionment is overblown. Currently, as acknowledged in the Question, in order to find a patent valid, the court must analyze the prior art to determine the patent's novel and nonobvious contribution. S. 1145 correctly requires the court to focus on the value of that contribution in determining reasonable royalty damages.

7. Does the bill's "specific contribution over prior art" articulation of the apportionment test depart from current law? (If so, please cite cases that articulate the test differently.)

No. The language in the bill correctly captures, albeit using slightly different words, pre-Federal Circuit law on apportionment. See *Garretson v. Clark*, 111 U.S. 120 (1884) ("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented feature, and such evidence must be reliable and tangible, and not conjectural or speculative); *Westinghouse Elec. & Mfr. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604 (1912) (holding that improvements added by the defendant contributed to the overall value of the accused product, and that "the burden of apportionment was then logically on the plaintiff, since it was only entitled to recover such part of the commingled profits as was attributable to the use of its invention."); *Dowagiac Mfg Co. v. Minnesota Moline Plow Co.*, 235 U.S. 641 (1915) ("the evidence, although showing that the invention was meritorious and materially contributed to the value of the [accused products], made it clear that their value was not entirely attributable to the invention, but was due in a substantial degree to the unpatented parts or features. . ."); *Whitney v. Mowry*, 29 F. Cas. 1102 (S.D. Ohio 1868) ("[I]t would seem to be a pretty hard measure of justice in a court of equity, to say that the entire profits made on that large article should go into the pockets of the inventor and patentee of this small thing. . ."). We believe S. 1145 ensures that

apportionment is more than just another *Georgia Pacific* factor for a court to consider.

8. In her testimony (page 9), Ms. Biberstein criticizes the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. She states:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

Do you agree with Ms. Biberstein that deducting all prior art would deny appropriate compensation to the inventor of a novel-combination invention? Please explain your answer.

We disagree with Ms. Biberstein. A large number of inventions are combinations of old elements. However, only non-obvious combinations are entitled to a patent. Determining precisely what rendered the combination non-obvious is well within the purview of a court, as is the value of that combination.

Consider the example that another of the opponents of apportionment used in his testimony—the well known Post-It brand note paper. Post-It notes have two components: (1) scraps of paper; and (2) a glue that enables a user to peel apart the glued together scraps of paper from the pad without damaging the paper. Ordinarily, one would pay no more than a few pennies for either the scraps of paper or for the glue. Yet, a pad of Post-It notes costs over a dollar. The reason is the combination of the glue and paper has a value that is worth much more than the value of the components alone. Obviously, 3M conceived of a novel combination of the mundane elements of glue and paper. This combination, which presumably was a patentable contribution over the prior art of the paper and the glue separately, is quite valuable. Thus, in this example, if one were to apply the apportionment language of the bill, the result would be an award to the patentee based on almost one hundred percent of the value of the product.[10]

8a. In your testimony (page 9), you criticized the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard

[10] Of course, in actuality in this example under the compromise language in S. 1145 on the entire market value rule, one would not apportion because the predominant value of the Post-It note comes from the patentee's inventive contribution.

would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. You stated:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

If a combination truly is novel, nonobvious, and useful, wouldn't the whole be worth more than the sum of its parts? In other words, if the combination of prior art really did add value to a product beyond that which already existed in the prior-art elements when used separately, wouldn't the value added by the combination of elements (the added worth of the whole) remain once that prior art (the sum of the parts) had been deducted?

Question for Ms. Biberstein.

9. If you believe that the bill's "specific contribution over prior art" articulation of the apportionment test is inappropriate, please suggest alternative ways in which you believe that the test should be articulated.

We believe the bill's articulation of the apportionment test is exactly right. The increased value of a new product over pre-existing competitive products typically is attributable to many factors other than the inclusion of a single patented improvement. Apportionment focuses on the value of the improvement alone, which is generally all that the patent holder should benefit from. In the rare case where a patented improvement is so significant that it is the predominant basis for market demand for the infringing product or process, S. 1145 allows the patent holder to use the entire market value to compute a reasonable royalty.

10. S. 1145 also requires that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages. Do you believe that the use of the language "specific contribution over prior art" is appropriate to identify that part of the invention that generates consumer demand when applying the entire-market-value test? If not, please suggest other language that you believe is appropriate.

Yes. Requiring focus on the "specific contribution over the prior art" is the right way to ascertain the basis of consumer demand in an entire market value analysis. As discussed above, there can be many factors that drive the increased value of a new product. The patent holder should only be entitled to the value that is attributable to the patented improvement, regardless. If the patented improvement is the predominant basis for consumer demand for the entire product, S. 1145

correctly identifies that value as the entire market value for the product. However, the principle is the same: the patent holder is only entitled to the value of its patented improvement.

11. Please identify any Federal Circuit decisions (other than those identified in your answer to question 2) that you believe adopt an incorrect legal standard for calculating patent damages.

Palm to date has not conducted the research necessary to answer this question comprehensively. We believe the decisions in *Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004) (allowing a reasonable royalty in excess of infringer's profits) and *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989) (same) are representative of cases in which an inappropriate legal standard was applied in calculating patent damages.

12. At page 7 of his May 18, 2007 letter commenting on S.1145, the General Counsel of the U.S. Department of Commerce endorsed some but not all of the bill's limits on the award of treble damages for willful infringement. In particular, he excluded from his endorsement proposed section 284(b)(3)(A) and (B), which create a defense to willfulness that the infringer had an "informed good faith belief" that the patent was invalid or was not being infringed. If you support this provision, please explain why you believe that this provision is appropriate. Do you believe that this provision goes beyond current law? If not – or if you believe that it only adds to a defense that exists under current law – please cite any judicial decisions that articulate this defense in current law. Should the provision also require that the good-faith belief be a reasonable one? Are there any other limits that you believe should be placed on this defense?

A conclusion that a defendant "willfully infringed" a patent can only be justified if the evidence shows that the defendant was more than merely negligent as regards the existence of a patent, and infringement of its claims. Rather, the defendant must have acted reprehensibly.[11] ANY evidence tending to rebut reprehensible conduct should be admissible, and, if proven, should be a complete defense to the charge of willfulness. This provision maintains long established defenses against charges of willfulness. *Knorr-Bremse* lays out in some detail the defense and controlling precedent.

The language of the bill requires an "informed" good faith belief. "Informed" imposes an objective criteria to the same extent as the word "reasonable."

13. The Commerce Department GC's letter also excluded from its endorsement proposed section 284(b)(4), which requires that willfulness be plead only after the patent has been found to be valid and infringed, and which requires the court to make the finding of wilfulness. Do you support, oppose, or have no objection to this provision? If you support or oppose it, please explain why.

---

[11] *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 1350-51 (Dyk, J. dissenting).

Palm has not taken a position on this issue.

14. It appears that the Federal Circuit's recent *Knorr-Bremse* decision precludes a trier of fact from drawing an adverse inference with regard to willfulness from the failure of an alleged infringer to obtain legal advice with regard to a patent. In light of that decision, is proposed section 284(b)(3)(C) of the bill necessary?

Yes. The Federal Circuit holding in *Knorr-Bremse* held only that an adverse inference instruction should not be given to the jury in circumstances where an alleged infringer does not obtain legal advice with regard to a patent. It does not hold that failure to obtain such advice is irrelevant to a finding of willfulness, nor does it address the issue raised in *EchoStar*. The *EchoStar* case has been interpreted by some commentators as supporting the proposition that, when an accused infringer waives the privilege, all conversations with *any* counsel regarding liability are subject to discovery. Taken literally, this could mean that if you ask your trial counsel what your strategy is to win the case, that conversation can be the subject of a deposition. In light of *EchoStar*, a defendant may choose not to disclose an opinion letter to avoid the risk of waiver. For these reasons, we believe that the proposed amendments on willfulness are appropriate.

15. In his testimony (at page 10) with regard to proposed section 284(b)(2)(B), Mr. Squires states that:

> While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice threshold.

Do you agree that proposed 284(b)(2)(B) should be modified to ensure that it describes "blatant copying" and not "mere notice?" Should paragraph (B) specify that, in addition to requiring that the infringer had knowledge of the patent, the infringer also must be aware of a substantial risk that his product infringes the patent? Should paragraph (B) require a showing that the infringer learned of the patented art from the patent itself or from a product licensed under the patent (or should it be a defense to an "intentional copying" finding that the infringer show that he learned the patented art from other sources)?

No modification is necessary. A finding of intentional copying cannot possibly result from mere notice of a patent. Congress should leave some room for the courts to develop the law on willfulness.

16. Is there any other element of proposed section 284(b) that you believe inappropriately limits the award of treble damages? If so, please provide a specific explanation.

No.

17. You stated in your testimony (page 9) that apportionment is only appropriate "if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate."

A. Assuming that market-based measures such as established royalties are unavailable, do you believe that apportionment should not be used unless the patented invention is only an insignificant and separable part of the overall product?

B. There presumably are a wide range of patented inventions that, while constituting more than an insignificant and separable part of the infringer's product, also do not constitute the principal basis for consumer demand for the product. Again assuming that market-based measures are unavailable, what measures do you believe should be employed to gauge royalties for inventions that fall within this range?

Question for Ms. Biberstein.

18. You state in your testimony (page 12) that:

> A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention is novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention*, not merely a parsing of claim elements, that reflects the patent's contribution over the prior art.

What is the difference between showing that an invention is "novel" and showing that it makes a "specific contribution over prior art?" Your last sentence quoted above appears to suggest that merely the invention as a whole (rather than each of its claims) must add to prior art. Is this what you mean? If so, and if merely the "invention as a whole" (rather than each of its elements) must add to prior art, why should elements of the invention that do *not* add to prior art be considered when applying either apportionment or the entire-market-value rule? To state this question differently, to the extent that a validly patented invention includes elements that do *not* constitute a specific contribution over prior art, why should the patentee be compensated for such elements in an apportionment analysis – or be allowed to use the market demand generated by such elements to advocate for application of the entire-market-value rule to gauge the value of his invention?

Question for Ms. Biberstein.

19. At pages 7-8 of your testimony, you described a situation in which a patent plaintiff sued Palm on account of an allegedly infringing component in a Palm product, rather than the supplier of the component. You described this as "gaming behavior." Do you believe that it is always inappropriate for a patent plaintiff to sue a manufacturer who purchases an allegedly infringing component and incorporates that component into its product, rather than (or in addition to) suing the supplier of the component itself? Setting aside the specific case that you described, if a manufacturer does incorporate into its product a component that infringes a valid patent, it would appear to me possible that this manufacturer paid a lower price for the component because of that infringement – and thus profited from that infringement. In such a case, should the patentee be permitted to recover for that infringement from the manufacturer that purchased and used the component?

The gaming behavior I referred to was the attempt by a patent holder to assert a patent against the manufacturer of an end product to capitalize on the higher price charged by the manufacturer of the end product as compared to the price charged by the manufacturer of the component product.

Palm supports the ability of patent holders to sue any infringer for that value, but Palm believes that a patent holder should be entitled solely to the economic value properly attributable to the patent's specific contribution over the prior art.

20. In his testimony, Mr. Dudas expressed concern about the PTO's ability to handle the volume of post-grant review petitions, particularly if (as in S. 1145) such review is available for patents granted prior to the enactment of such a procedure. In order to prevent the volume of petitions from overwhelming PTO's resources, would you favor the following limits on the post-grant review procedure? (Please explain your answers):

A. A provision in the legislation that the post-grant review procedure shall not become available until the PTO certifies that it has sufficient resources to hear post-grant review petitions.

B. A provision making PTO's exercise of post-grant review discretionary, akin to the U.S. Supreme Court's certiorari review. (Perhaps to be accompanied by a requirement that the PTO decide whether to hear a post-grant review petition within a specific amount of time.)

Neither of the proposed limits should be necessary. There would be no better way to ensure that the PTO gear up to handle post grant opposition procedures than by creating an opposition procedure that is available without exception as of a specific time.

21. S. 1145 requires that post-grant review be completed within 12 months, with a possibility of a six-month extension. Do you believe that this deadline is realistic – that the PTO will be able to abide by it in the large majority of cases – if the procedure that is implemented is identical to that in S. 1145 as introduced in the Senate? Do you believe that this deadline (or a longer deadline) would be realistic if the post-grant review procedure were limited as described in the preceding question?

Yes. A speedy determination is essential and we have every confidence that the PTO can implement the process as contemplated by S. 1145.

22. The post-grant review procedure proposed in S. 1145 does not apply a presumption of validity to patents reviewed in such a proceeding. Do you believe that this omission is appropriate or necessary? If so, why?

Yes. A presumption of validity is inconsistent with the rationale for creating a post grant review where the question of whether the PTO properly granted a patent is under review by the PTO itself. The presumption was intended to require the district courts to give proper deference to decisions of a federal agency, such as the PTO. The presumption should be irrelevant in intra-agency matters.

23. Under the post-grant review procedure proposed in S. 1145, a party challenging a patent is only estopped from raising those claims that he did raise before the PTO, not those that he could have raised.

A. Do you believe that this restriction on estoppel to claim preclusion (rather than issue preclusion) is appropriate or necessary? If so, why?

B. It appears to me that under the post-grant review procedure as proposed in the bill, a party who wishes to challenge a patent and who knows of five bases to allege invalidity could assert only two of those bases in the post-grant review procedure, saving the remaining bases to assert in federal district court. Are such tactics possible under the procedure as proposed in the bill? Should the bill be modified to preclude such tactics, or are such tactics an acceptable price to pay for the advantages of not precluding a party that exhausts post-grant review from asserting additional validity challenges in district court?

Yes. This restriction is critical to the success of any post-grant review. With a broader application of estoppel (e.g., to matters that could have been raised), the utility of post grant as an effective forum in which to challenge patent validity is greatly diminished. For example, because post grant opposition is an expedited process with limited discovery, it may be difficult, if not impossible, to raise every invalidity argument that, in theory, "could have been raised".

For similar reasons, a potential defendant may initially decide that a bad patent is quite weak or otherwise not a large risk, and thus only be willing to invest in a limited prior art search for a reexamination or opposition, even though a deeper, and more expensive, prior art search would uncover additional, stronger prior art. It would be fundamentally unfair to prevent the alleged infringer from investing more in its defense should this patent arise in subsequent litigation. Under the current estoppel rules, a challenger using inter partes reexamination must be prepared to go all out, or risk being estopped from using prior art that it "could have raised" in the reexamination. This risk deters people from filing inter partes reexamination and thereby inhibits effective use of post grant review to improve patent quality.

24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown. Do you believe that this limitation is appropriate or necessary? Please explain your answer. If you believe that this limit is not appropriate, please suggest an alternative proposal.

Yes. Under current law, there is no limit on the number of times a patentee may amend a claim during prosecution. In addition, the patentee may amend claim language in an issued patent by submitting the patent for reissue. Therefore, we believe that, in the interests of an efficient determination of a patent's validity, it is entirely appropriate to impose a limitation on a patentee's right to amend the patent during the post-grant opposition proceeding.

25. If a patent challenge is pending in district court, and the alleged infringer commences post-grant review proceedings before the PTO, should the district-court action be stayed pending resolution of the post-grant review? Should such a stay be granted if requested by the patentee? Should any other restrictions be placed on such stays?

We believe that, absent an unreasonable delay by the alleged infringer in initiating a post-grant review, the stay should be granted automatically.

26. In his testimony (at page 15), Mr. Bernstein expressed concern about the breadth of the rulemaking authority that S. 1145 would grant to the PTO. For what purposes do you believe that the PTO needs rulemaking authority? To what subject matter should the rulemaking authority granted by this bill be limited?

Palm has not taken a position on this issue.

27. One concern expressed about the current patent-litigation environment is that a few bad actors send large numbers of letters asserting infringement or "inviting" licensing of their patents without conducting a reasonable investigation as to whether the letter-recipient's product

actually infringes their patents. (*See, e.g.* Doyle testimony at pp.6-7.) Would you support a provision requiring that a district court impose an appropriate sanction at the conclusion of an infringement suit if, on the motion of the defendant, the court found that no reasonable person skilled in the art would conclude that the plaintiff's patent was infringed by the defendant's product? Should such sanctions be paid to the defendant or to the PTO – and if to the PTO, should the district court be permitted to consider assertions of invalidity made against other parties and their products by the plaintiff?

Under Federal Rule of Civil Procedure 11, courts already have the discretion to sanction frivolous patent lawsuits.

Post-Hearing Questions for the Record
Submitted to Jon Dudas
From Senator Tom Coburn

"Patent Reform: The Future of American Innovation"
Before the Senate Judiciary Committee
June 6, 2007

1. For years the U.S. Patent and Trademark Office had its fees diverted by Congress to other areas for appropriation. Although in recent years Congress has shown restraint in not diverting fees, would the Administration support language added to S.1145 that would end any future possibility of fee diversion? If yes, is language like HR 2336 sufficient or does USDPTO have suggested language?

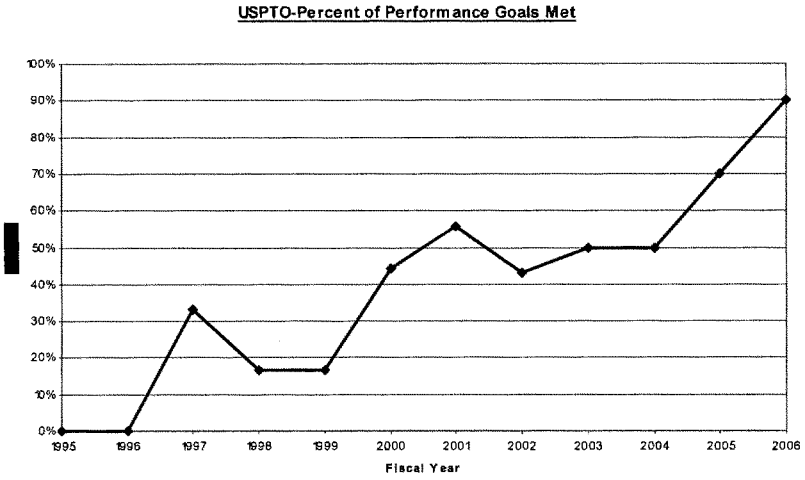
The Administration opposes any effort to remove USPTO from the appropriations process including HR 2336. The appropriations process provides needed oversight and helps ensure better results when it comes to productivity, performance and costs.

We are pleased that the FY 2008 budget request and the Senate and House Appropriations Committees' actions to date give the USPTO full access to the $1.9 billion in fees we expect to collect. This is the fourth consecutive year that the President's budget recommends full access to collected fees, and the USPTO appreciates the continued Congressional support for that funding level.

Full access to user fees through appropriations acts along with proper oversight are needed to allow the USPTO to continue its successful model of disciplined focus on real measures that enhance quality and increase production, increase hiring and training, promote electronic filing and processing, provide telework opportunities for our employees, and improve intellectual property protection and enforcement domestically and abroad.

Full access permits us to finance the initiatives -- particularly initiatives requiring long-term planning and commitment -- necessary to providing and maintaining reliable, functioning systems. Without Congressional support for full access to user fees, we would not be able to function in a business-like manner and achieve these results. Fiscal Year 2006 was a record-breaking year for the USPTO. Our 8,500 employees had the highest production, highest hiring, highest usage of electronic filing and electronic processing, highest number of examiners working from home and lowest error rate in history.

As the chart below illustrates, in FY 2006, the USPTO met 90 percent of the performance goals established pursuant to the *Government Performance and Results Act of 1993*, providing its best record to date for achieving important measures of performance and results.



1a. Are there other fee structure issues Congress should consider to give USPTO the flexibility needed to address anticipated future costs?

The President's Budget supports the extension of fees contained in the Consolidated Appropriations Act of 2005. We will continue to analyze current and future costs and transmit proposals to Congress that account for these costs.

2. At the hearing, we discussed the challenge rate in Europe of about 5% in their post grant review system. Please explain, with specific data, what USPTO anticipates the US challenge rate will be as compared to the experience in Europe.

We believe we will not experience anywhere near the 5 percent challenge rate experienced by the EPO for three reasons.

First, in Europe, after the opposition period, a patent can be challenged on validity grounds only in the courts of each member country with the result effective only in the country of a particular court. In the U.S., a patent held invalid in any federal court is invalid throughout the country. Thus, to obtain comprehensive geographic effectiveness, a strong incentive exists in Europe to initiate oppositions in the EPO as opposed to a validity challenge in the courts of member countries. No incentive would exist in the U.S. to maximize geographic effectiveness by initiating a post-grant opposition in the USPTO as opposed to a validity challenge in the federal courts since both have the same scope of geographic effectiveness.

Second, in Europe, an opposer can hide the identity of the real party in interest. That will not be true under the proposed post-grant legislation. Thus, in bringing post-grant oppositions in the U.S., there will be fewer filings because the real parties in interest will not be able to hide their identity. Thus, there is a different calculus of the risk of exposure to a potential infringement suit.

Third, we plan to implement as the threshold requirement for initiating a post-grant opposition that the petitioner present the evidentiary basis for a prima facie case of unpatentability before we will institute a cancellation proceeding. This is the only way we can meet the timeframes for these proceedings. This will act as a disincentive to the routine institution of post-grant oppositions in the U.S.

For the reasons above, we do not believe that the 5 percent European challenge rate can be extrapolated to anticipate the U.S. challenge rate. We believe that the U.S. challenge rate will be less than the European challenge rate.

For section 322(1), first window, we project the current legislation to result in a total of 311 first window post-grant filings in FY2009. This workload is expected to increase to a total of 762 first window post-grant filings by FY2013. We will need to dedicate a total of 30 employees (21 APJs[1], 7 paralegals and 2 support staff) to address this additional workload in FY2009 and total of 72 employees (51 APJs, 16 paralegals and 5 support staff) by FY2013.

For sections 322(2) and (3), second window post-grant filings, we will first estimate the workload for section 322(2)(A) and section 322(3). Based on our experience with filings for reissue, *ex parte* and *inter partes* reexaminations and interferences, we project that sections 322(2)(A) and (3) will result in 617 second window post-grant filing in FY2009. This workload is expected to increase to 712 by FY2013. We will need to dedicate a total of 60 employees (41 APJs, 14 paralegals and 5 support staff) to address this additional workload in FY2009 and a total of 72 employees (48 APJs, 17 paralegals and 7 support staff) by FY2013.

For section 322(B), we assumed that the number of second window post-grant filings would come from cases that would otherwise be typically litigated. We conservatively estimate that an average 25% of the cases litigated will first have a post-grant review initiated. Under this assumption, the post-grant filings are projected to be 2,136 for FY2009. This is expected to grow to 2,465 by FY2013. We will need to dedicate a total of 204 employees (141 APJs, 47 paralegals and 16 support staff) to address this additional workload in FY2009 and a total of 238 employees (163 APJs, 55 paralegals and 20 support staff) by FY2013.

[1] In FY2006, the Board instituted a Patent Attorney Pilot Program where one or two patent attorneys are assigned to some Administrative Patent Judges (APJs) to assist in the preparation of appeal decisions. This pilot program is intended to: (1) provide a training venue for future Administrative Patent Judges; (2) provide an efficient and effective organization under our present management structure. ; And (3) address the increased workload. The Board is conducting a review of the program and preliminary results show that the program is promising. Thus, these APJs numbers are likely to be a combination of APJs and patent attorneys.

For Sections 322(2) and (3), the total projected second window post-grant filings are 2,753 second window post-grant filings in FY2009. This workload is expected to increase to a total of 3,177 second window post-grant filings by FY2013. We will need to dedicate a total of 264 employees (182 APJs, 61 paralegals and 21 support staff) to address this additional workload in FY2009 and a total of 310 employees (211 APJs, 72 paralegals and 27 support staff) by FY2013.

Thus, for the initial year of implementation of the proposed legislation (FY2009), the combined total number of post-grant filings from the first and second windows would be 3,064 and the combined total personnel requirement would be 294 employees (203 APJs, 68 paralegals and 23 support staff).

For comparison purposes, should we unexpectedly experience the EPO challenge rate of about 5%, the projected number of first window post-grant filings would be 20,969 in FY2009, increasing to 24,202 by FY2013. The workload for FY2009 would require 2,003 employees (1,387 APJs, 462 paralegals and 154 support staff). The second window post-grant filings would be 173,336 filings in FY2009 and increase to 200,062 by FY2013. Such an increase would require significant hiring throughout FY2009 to FY2013 with an initial second window hiring requirement total of 16,557 new employees (11,462 APJs, 3,821 paralegals and 1,274 support staff). Thus, the initial year under the EPO challenge rate would result in a combined total of 194,305 post-grant filings and a combined hiring requirement total of 18,560 new employees (12,849 APJs, 4,283 paralegals and 1,428 support staff).

2a. How will USPTO manage an influx of new post-grant opposition challenges, coupled with an expanded inter partes reexamination process? Will it be forced to reallocate resources from other functions, namely its core examination responsibilities, and if so, what amount of additional resources would be needed for USPTO to effectively handle the potential workload resulting from new opposition and increased inter partes reexamination filings?

Assuming that conventional interferences are abolished, 17 APJs and 10 paralegals currently assigned to interferences will be transitioned to post-grant oppositions. However, this source of trained staff is inadequate to address the projected workload because the first and second window of post-grant oppositions would open for all issued patents immediately, resulting in the necessity of expeditiously hiring and training a relatively large number of new APJs (186) and paralegals (58). The timeliness and efficiency in formulating decisions in post-grant oppositions undoubtedly would be negatively impacted. Moreover, the demand for APJs likely would negatively impact the Patent Examining Corps as experienced Patent Examiners would be a source for the new APJ positions.

2b. Does your answer change if the bill's "second window" becomes only prospective and not retroactive?

If the "second window" becomes prospective, we project no second window post-grant filings in FY2009 and 455 second window post-grant filings in FY2010. We will need only 30 APJs and 10 paralegals by FY2010 as opposed to 182 APJs and 61 paralegals by FY2009. The negative impact of the second window opening immediately for all issued patents would be greatly diminished if the second window opened only prospectively. This would provide more time to ramp up hiring levels, and thus more time to hire and train employees for high skill level positions, namely APJs and paralegals.

3. A few years ago, Japan abolished its separate post-grant opposition system, 7 years after its adoption. In its place, it created a new expanded invalidity proceeding which combines elements of post grant opposition and the preexisting invalidity proceeding. Japan found that having separate, parallel post grant opposition and invalidity proceedings resulted in harassment of and excessive costs for, patentees as a result of the potential for multiple challenges on the same patent. Other countries such as China, Korea and Taiwan have taken similar measures after experiencing similar problems.

Given that S.1145 would not create a two-track administrative reexamination process, but also expand the patents eligible for challenge and weaken the estoppel effect of an unsuccessful challenge, won't American patentees experience the same risk of harassment, duplicative challenges and excessive costs that ultimately led Japan and other Asian countries to adopt a unified reexamination process?

Changes to Japan's patent law relating to challenging a patent validity came into force on January 1, 2004. The revised law abolished the post-grant opposition system, which had a limited window, and merged it into a single invalidation appeal proceeding at the Japan Patent Office. The goals of the changes were to prevent unnecessary delays against the same patent by multiple oppositions, and to improve the system to meet the needs of a variety of users by have a single avenue for challenging patents. In Japan, the invalidation appeal is now the only procedure for challenging the validity of a patent before the JPO.

In Japan, at the appeal stage, parties have flexibility to introduce newly covered evidence; however, they can not introduce new issues. For example, if at the invalidation appeal, the party lost for failure to show lack of novelty, that party could not raise enablement issues at the court. However, there is no limit on the number of invalidation appeals that can be made against a Japanese patent. Thus, multiple challenges against the same patent are still permitted in Japan and potential for abuse and harassment still exists. The effectiveness of the Japanese system has not been truly tested and it is unclear whether the invalidation appeal system will actually prevent unnecessary expense and burdens on a patentee.

As far as the creation of a "two-track administrative reexamination process" in the United States, we are of the position that a limited reexamination system, whereby parties can, at a fairly low cost, request reexamination based solely on patents or printed publications, can serve an important role in determining patent validity. The Japanese invalidity appeal process differs from the reexamination process in that it uses a collegial body of three to five appeal judges who conduct the examination and to whom the requester can submit a variety of evidence other than patents or printed publications. Given these differences, Japanese invalidation appeals tend to take longer and cost more than a reexamination in the United States.

Moreover, we believe that a carefully crafted second window for post-grant opposition can be designed as such to overcome concerns regarding harassment to the patent owner. Accordingly, we support the availability of a second window provided that (1) there is a higher level of estoppel for petitioners in the second window and (2) there is an affirmative allegation of patent infringement as a threshold for requesting a cancellation proceeding after the expiration of the first window.

Finally, with the adoption of a properly crafted second window for post-grant opposition, we recognize that the need for an *inter partes* reexamination proceeding is diminished. Consequently, to avoid duplicative processes for review, we support the elimination of current *inter partes* reexamination under these circumstances

4. What patent quality improvements are not in the bill that USPTO believes Congress should add to S.1145?

To ensure that patent examinations are of the highest quality and proceed as efficiently as possible, patent applicants should have every incentive to provide relevant information to the USPTO. The patent applicant has the most knowledge, the most opportunity, and the most to gain by providing the USPTO with the best possible information about his or her invention. Experience with the USPTO's Accelerated Examination Program, which requires an applicant to provide search and support documents, shows that both applicants and examiners realize that more written and oral information from applicants improves quality and timeliness.

Applicants or their attorneys fear that the legal doctrines of inequitable conduct and unenforceability may unfairly punish them with draconian penalties for innocently omitting information. A requirement to submit information may also place a burden on independent inventors who are unfamiliar with the patent process.

The USPTO recommends that the bill be amended to address the doctrine of inequitable conduct and unenforceability to ensure that patent applicants are not discouraged from fully and fairly sharing relevant information with the USPTO.

The USPTO supports the manager's amendment that establishes a micro-entity status for truly small and independent inventors and recommends that such entities not be subject to regulations requiring the submission of applicant quality submissions. Micro-entity status

may also serve as the basis for eligibility for future fee reductions or adjustments and other possible preferred treatment and assistance.

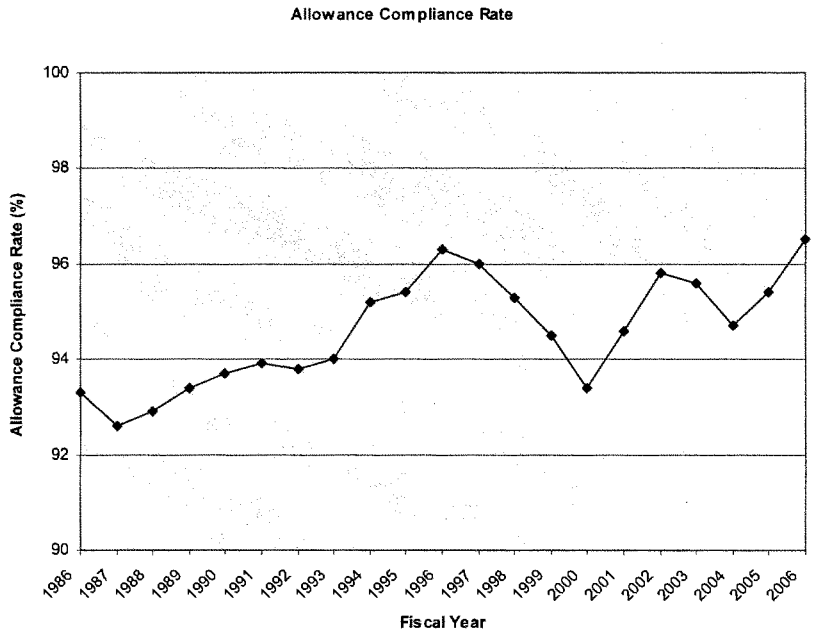
Another issue that the committee may wish to address in this legislation is ex parte reexamination practice. The USPTO is concerned that some patent litigants are using the ex parte reexamination system not as a substitute for litigation but as a method of calling into question district court judgments prior to appeal. If a requester/defendant comes to the USPTO after the district court proceedings have reached a mature point then the expected efficiency of agency proceedings has been lost. The committee may want to explore a statutory change that prevents this use of ex parte reexamination. For example, third-party requestors in ex parte reexaminations, if also parties to litigation, might need leave of court to initiate a proceeding in the USPTO after some point in the judicial process. We would be pleased to work with the committee to develop appropriate language.

5. Patent quality has been much maligned in the discussion regarding this patent legislation. How does USPTO respond to such assertions? Please provide specific data.

Quality of the patent examination process remains the top priority at the USPTO. The USPTO is working diligently to address quality throughout the patent application process to ensure the best possible results.

We have put in place many initiatives and programs to improve quality. All indications show that our efforts are working and quality is improving. Perhaps the most significant evidence of improved quality is seen in the USPTO reviews, which randomly sample patent applications – both during the examination process and when the examiner believes the application is ready to be allowed. We check those applications for any type of error. In FY 2006, the USPTO showed the lowest error rate for allowed applications in 20 years. As the chart below shows, with a 96.5% Allowance Compliance rate we continued to build on the improvements of the two previous years. In FY 2005 we showed 95.4% compliance, and FY 2004 we came in at 94.7%.

We are currently positioned for another record year, as our Allowance Compliance rate through the first three quarters of FY 2007 is 96.7%.



Similar drops in error rate are seen in office actions randomly sampled in In-Process Compliance reviews prior to allowance, the number complying with applicable laws and rules in FY 2006 reached 90.0%, from FY 2005 where we saw 86.2%. We continue to show significant improvement in this area, and as a result we raised our FY 2007 In-Process Compliance target from the beginning of the fiscal year. Through the first three quarters of FY 2007 our In-Process Compliance rate is 92.4%.

These results confirm that the enhanced reviews in different stages of prosecution and the increased resources that we have allocated into building quality into examiner work product is paying off. We tripled our efforts in the number of applications reviewed this past year and we used resources to tailor training to areas needing attention.

The significant drops in error rates also demonstrate that the concerted efforts instituted over the past 3 years to improve patent quality are having a positive impact on our work product. We look at quality on a continuum, which starts before we even bring a new examiner on board and does not end until an application is allowed and granted.

The USPTO continues to refine our quality measures and as a result we are reaching out to the interested public for input on how to improve and validate our internal quality measures. First, we are developing new quality measures and performance targets in

conjunction with external stakeholders. Second, we are planning to obtain independent verification of patent quality using our existing quality measures in an effort to increase public confidence in our quality measures and targets.

Our hiring efforts have been revamped to bring on board the most qualified and suited candidates for examination. Improved recruiting techniques including interviews and a pre-employment compatibility assessment tool have been put in place. We are exploring partnerships with universities to offer intellectual property courses to science and engineering students, develop an internship program, and train students in intellectual property to create a ready pool of potential examiner candidates.

Once on board, our examiners are trained in the Patent Training Academy, which was implemented last year for about two-thirds of our hires and has been expanded to include all our new recruits this fiscal year. This university-style training program is intended to not only provide more intensive technology-based training following an aggressive curriculum, but also free supervisors from this responsibility so they can focus more of their time to mentor and train the junior employees already in their units. This training program lasts for eight months and returns new hires to the examining corps who are capable of writing complete office actions for supervisory review. This new training model will create a higher quality, better-trained new examiner who will be able to examine applications more accurately and thoroughly than our traditional one-on-one training model provides.

We continue to look at ways to improve training for all examiners. Many training opportunities are provided to the examiners both in-house and in other venues. Technical and legal training are made available on campus through technology fairs and lectures, patent law and evidence class, case-law reviews and a host of other programs. We have in place law school tuition assistance and technical training assistance that examiners can pursue at colleges and universities.

We continue with the Examiner Certification and Recertification programs. The Certification program is a thorough certification process for any employee seeking to be promoted from the GS-12 level to the GS-13 level. This process includes a review of the work product of the examiner and a certification exam similar to the agent's exam that patent attorneys and agents must pass. In order to help examiners prepare for the certification exam, we offer a two and one-half week patent law and evidence class, which also assists them in their day-to-day examination practice. In 2004, 178 examiners passed the certification exam; in 2005, we saw improvement with 275 examiners passing the exam; and in 2006, we saw 328 examiners achieving a passing grade. The promotion to GS-13 represents a level of independence in which the supervisor is no longer responsible for day-to-day intensive review of the examiner's work product. In order for the examiner to achieve this level of independence, we are ensuring that they have the skills required to perform their job. The Recertification program is in place for all our senior examiners at a GS-13 grade or above. Every three years, we assess the quality of our most senior employees to ensure that they retain the up-to-date skills to perform their jobs and pass along their knowledge to junior examiners.

Our proposed rule changes are another avenue to improved quality. It cannot be overlooked that quality absolutely begins with the applicant. The Proposed Rule Changes to Improve Patent Quality are directed to having better application input from the applicants, which contributes directly to more efficient processing and to improved quality, thereby benefiting both the examiner and the applicant. We have proposed a new patent rules package that encourages patent applicants to be more open and rigorous throughout the application process. First, we have proposed limiting the number of continuing applications and continued examination requests, without a showing that more opportunities are necessary, to provide an incentive for applicants to focus their initial patent applications on their inventive contributions. Second, we have proposed to limit the number of claims for examination in order to provide an incentive to focus the examination process, unless applicant shoulders additional burdens.

The USPTO is taking the success of the Accelerated Examination Program, where the applicant is required to hold an interview and to provide a search and a support document to model an applicant quality submission program. We expect this program to lower pendency, raise productivity and increase quality in all patent examinations. To that end, we believe that applicants should be given every opportunity and responsibility to provide more and better information to examiners about their inventions.

Questions for the Record from Senator Specter, Ranking Member
Senate Judiciary Committee
"Patent Reform: The Future of American Innovation"
June 6, 2007

The Honorable Jon Dudas, Undersecretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office, Department of Commerce:

1. **What is PTO's position on the bill lowering the estoppel bar for inter partes reexamination?**

As reflected in our answer to Question 3, below, the USPTO favors repealing *inter partes* reexamination in favor of post-grant review. As there discussed, an adjustment in the *inter partes* reexamination estoppel does not appear likely to remedy the perceived disadvantages of that process. For post-grant review, the USPTO favors an estoppel provision similar to the one proposed for *inter partes* reexamination for reviews sought in the "first window," but a higher estoppel bar thereafter.

2. **How long does the average reexamination process take under the current system?**

Over the life of the *ex parte* reexamination program (since 1981), the average pendency from filing to issue of a reexamination certificate is 23 months, and the median pendency is 18 months. To improve the quality and uniformity of reexamination proceedings and control the pendency of the proceedings, the USPTO created a Central Reexamination Unit in 2005 with a goal of closing prosecution in all reexaminations within 24 months.

Inter partes reexamination is a relatively new procedure, and is only available for patents that resulted from an application filed on or after November 29, 1999. As of the end of calendar 2006, only seven reexamination certificates have issued, with an average pendency of 28 months.

3. **If Congress creates a new post-grant review process, do you think that it is necessary to retain the current inter partes reexamination process?**

The USPTO does not view *inter partes* reexamination as a necessary proceeding once post-grant review is established. In the USPTO's 21st Century Plan, and in the USPTO's early draft of a post-grant bill, *inter partes* reexamination was eliminated in favor of post-grant. A post-grant petitioner can challenge a patent on every ground available in *inter partes* reexamination. Post-grant review has been designed to provide several advantages over *inter partes* reexamination, including cross-examination and limited discovery, that are necessary for many potential challengers to consider use of any proceeding that would have any estoppel effect in court actions. The post-grant review proceeding would also provide an opportunity for consideration of all grounds of patentability, while the *inter partes* reexamination proceeding is limited in subject matter. The new procedure also puts the contest into a forum -- the Patent Board -- better equipped to deal with *inter partes* cases. With these features, post-grant review seems to make *inter partes* reexamination largely redundant, so that it is preferable for the Office not to maintain both procedures.

4. **Would you explain in more detail the changes the PTO would like to see regarding the "second window" process, especially the difference in scope? Specifically, how does the PTO's proposed second window differ from that proposed in S.1145?**

As a result of the recent Manager's amendment, the second window in S.1145 looks very much like the USPTO's proposed second window. Revised S. 1145 now includes two requirements that petitioners must meet before the agency can institute a post-grant review proceeding -- first, petitions are limited to those patents that cause significant economic harm to the petitioner; and, second, the owner of the patent must have affirmatively accused the petitioner of infringement. The "and" in that sentence is very important -- it was in the USPTO's proposal and is now in S. 1145. The USPTO is very strongly in support of that "and."

We would favor providing for a second-window review to have a different estoppel effect than a first-window review, while the current bill provides for the same estoppel effect for both. It makes sense for resolution of a challenge that must be brought in the first

year to have a binding effect only with respect to issues raised, since there may be limitations on the extent to which a challenger in the initial period can effectively identify and develop all relevant grounds. A second-window review, however, will serve as a substitute for court litigation and, as such, should bind not only the patentee but also the challenger as a decision on the merits in litigation would.

In addition, revised S.1145 still has a retrospective effect, that is, it opens post-grant review's second window immediately to the 1.5 million patents currently in force. The USPTO is worried about our ability to efficiently handle post-grant review during the ramp-up phase if all the patents in force are immediately made eligible for review. We would propose that post-grant review only apply to those patents issued on or after a certain effective date and that date would be one year after the enactment of the statute. That would give the agency a year to ramp up for "first window" challenges and a second measured ramp up in eligibility for "second window" challenges.

5. **In its letter to Chairman Leahy and me, the Department of Commerce expressed concerns about the strain the proposed post-grant review process would have on the PTO. Could you discuss this point in more detail? Specifically, what sort of strain will the process present? Financial? Employees? How can we adequately address those concerns?**

The concerns expressed by the Department were based on the two issues identified in answer to the previous question: (1) the broad second window, since narrowed by manager's amendment in S. 1145, and (2) the bill's reaching back to include all in-force patents issued before the effective date of the legislation. In this case the difficulties envisioned, are only partly financial. No amount of money can create agency expertise in the efficient running of a new proceeding -- that comes only with time and experience. If the bill applies retroactively there is a very real chance that the agency would not have the time to develop that expertise before being faced with post-grant oppositions covering patents issued 5, 10, or 15 years ago.

Currently, the agency has a corps of experienced Administrative Patent Judges (APJs). We believe these men and women form a solid foundation on which to build our post-grant review bench in a prospective regime. In the first year, the first window would open slowly, allowing a limited number of patents to be challenged and the agency could expend more resources and use its experienced APJs on these early cases. At the end of the first year, the second window -- unnecessary for the first 12 months of the prospective proceedings -- would begin to open and the experienced APJs could be used on the early second window cases. This would allow the Office to grow and train the Board legal staff to handle an expanding jurisdiction in such a way that it can give quality decisions in the expedited fashion the bill contemplates.

6. **Have you received a response from the Department of Justice on these provisions in S.1145? Did they propose any alternatives?**

The Department of Justice was consulted in the original development of the USPTO's post-grant review proposal and has not proposed any changes to the USPTOs original proposal on post-grant review. The Justice Department has weighed in on venue and other reform issues, as reflected in its thorough views letter.

7. **You do not specifically address best mode requirement, yet the National Academy of Sciences, the AILPA and the ABA recommend its repeal. Do you think that enablement requirement, which requires a specification to provide enough information to "enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use" the claimed invention is sufficient disclosure justifying a repeal of the best mode requirement?**

USPTO recognizes that elimination of the best mode element may have some positive aspects but remains concerned that such elimination may not ensure full disclosure by applicants.

Written Questions Submitted by Senator Chuck Grassley for Senate Judiciary Committee Hearing on Patent Reform, June 6, 2007

Questions for Jon Dudas

1. **Some have claimed that S.1145's proposed changes to the current definition of "prior art" appear to go beyond what is necessary to move U.S. patent law to a "first inventor to file" system. Do you agree with this claim? If so, could you identify those changes that are necessary to transition to a "first inventor to file" system? In addition, if there are changes which are not necessary for "first inventor to file", please provide the U.S. Patent and Trademark Office's (USPTO) opinion of the effect of such changes on the patent system.**

As indicated in the DOC/USPTO views letter, we believe that any U.S. commitment to convert to a first-to-file system should be contingent on significant progress and international agreement in ongoing substantive patent law harmonization discussions with foreign patent offices. The establishment of a standardized one-year international grace period and the scope and application of various provisions relating to prior art, an on-sale bar, experimental use and secret commercial use, are all elements of the ongoing international negotiations. The precise content and text of a statutory effort necessary to transition to a first-to-file system are largely dependent on the outcome of those negotiations.

2. **Mr. Dudas, I'd like to hear your views on issues raised by the manufacturing industry. I've attached a letter to Congress from the National Association of Manufacturers which expresses concerns about S.1145, including apportionment of damages and the open ended post-grant review process. How would you suggest these concerns be addressed?**

In the May 18 letter from the National Association of Manufacturers (NAM), that association expressed its opposition to "certain elements of the post-grant opposition procedure." While not wishing to speak for NAM, we believe that at least some of NAM's concerns may have lain in the broad standing requirements for the second window originally in S.1145. Any such concerns have been addressed by the recent manager's amendment to section 322(2)(A) and (B), which the USPTO supports. This particular amendment limits second window petitions to economically significant patents whose owners have affirmatively given notice of alleged infringement by the petitioner. Of course, the USPTO is happy to work with NAM and all stakeholders to address any other concerns they may have with post-grant review.

3. **S.1145 gives the Director of the USPTO expansive substantive rulemaking authority which would encompass "any rules, regulations, and orders that the Director determines appropriate to carry out the provision of the [the Patent Act] or any other law applicable to the [USPTO] or that the Director determines necessary to govern the operation and organization of the Office." Some argue that this rulemaking authority could result in inadvisable regulatory changes, including severe restrictions on continuation and claim practice that are opposed by a majority of patent holders. In fact, in a May 18, 2007 letter to Senator Leahy and Specter, the General Counsel of the Department of Commerce, John Sullivan, expressed the Administration's concerns with the "unbounded discretion" of section 11's proposed rulemaking authority and indicated that any grant should not be "overbroad." (Letter is attached)**

At the Committee hearing, however, you indicated that the Administration was no longer concerned with this particular section. Yet the language remains unchanged and very broad.

As the letter from the General Counsel of the Department of Commerce reflected, we were concerned, on seeing this proposal, to assure ourselves that expanded rulemaking authority would not create an undue level of discretion in the USPTO. Examining the proposal, however, we are convinced that there is good reason to consider the USPTO's having the same level of rulemaking authority with respect to statutes that it administers that other agencies have.

There are disadvantages to the USPTO's not having such authority. The USPTO, for example, receives over 400,000 patent applications a year. The courts in comparison render relatively few decisions interpreting patent law. The USPTO gives guidance to its 5,000 patent examiners on substantive law. It can take, however, years before the actions based on that guidance are tested in court. While that guidance is generally ultimately upheld, the adequacy of the USPTO's decisions can remain uncertain for long periods since the courts are not now obliged to defer to reasonable agency statutory interpretations. Moreover, there are clearly, as will be discussed below, areas where it is best to receive information from the public in deciding how to apply the law. The courts

are not in a position to seek and receive such input, but, under this proposal, the Office would be.

It would, thus, advance the predictability and efficacy of the patent and trademark systems if the USPTO had broader notice-and-comment rulemaking authority in its areas of substantive responsibility. The current general statutory grant to the Office gives it authority to promulgate rules to govern its proceedings. As your letter suggests, the limits of that grant have not prevented controversy from arising when the USPTO proposes rules to govern proceedings before it. I have found the range of public input that we received in response to such proposals very helpful to our deliberations. The development of intellectual property law could benefit if future Directors can use notice-and-comment processes to promulgate rules on the laws applied by our examiners. It is much better for the system if policies that can affect patent and trademark applicants are adopted after airing of disparate views. Controversy seems a small price to pay for the benefits of such input.

a. What regulatory authority was the Administration concerned that the overbroad language of section 11 had provided in S.1145?

We did not have an opportunity to know how expansive rulemaking authority would be and, for instance, whether it would grant term extension authority to the Office. We are convinced it would not grant term extension authority, something that would prompt many to bring political issues to the Office that should not be before the Office.

b. The Administrative Procedure Act (APA) defines a rule as "the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy." Please provide a detailed list of the specific laws or policies that the USPTO should have regulatory authority to prescribe.

Since rulemaking authority may prove valuable in addressing currently unanticipated issues or situations, it may not be possible to develop a conclusive and exhaustive list of potential areas of application. However, some examples and explanations fitting the three identified categories are as follows:

i) First, consistent with grants to other agencies, the USPTO would have the authority to make rules implementing statutorily required duties. For example, 35 U.S.C. § 156 requires the Director to extend the terms of certain patents covering items subject to regulatory review by other agencies, and further requires the Director to take certain actions in connection with applications seeking patent term extensions under that section. Those provisions and others, which require the Director to take certain actions or to perform certain duties, are the types of laws that the USPTO should have the regulatory authority to implement and to reasonably resolve ambiguities in its interpretation.

ii) Second, the patent and trademark system could achieve greater certainty if USPTO had the authority to interpret the numerous laws or policies that bear on the

decisions it makes. The Supreme Court has long recognized "that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer" and that those constructions should be subject to "the principle of deference to administrative interpretations." *Chevron U.S.A., Inc. v. Natural Resources Def. Council, Inc.*, 467 U.S. 837, 844 (1984). The USPTO, however, as the Federal Circuit held in the *Merck* decision noted above, is not in general entitled to *Chevron*-level deference outside its rulemaking authority to govern its proceedings.

USPTO examiners collectively make thousands of decisions a day on the statutory requirements for patentability. Those decisions encompass, for example, compliance with the written description requirement of 35 U.S.C. § 112, ¶ 1, and the utility requirement of 35 U.S.C. § 101. The USPTO encounters issues raised by the application of those provisions to new technologies long before the courts do and develops guidelines on how its examiners should make those decisions. Those guidelines were upheld, years after their promulgation, by the courts. *See, e.g., In re Fisher*, 421 F.3d 1365, 1372 (Fed. Cir. 2005) (adopting the USPTO's section 101 utility standards because they comport with the court's independent interpretation of the statute); *Enzo Biochem, Inc. v. Gen-Probe Inc*, 323 F.3d 956, 964 (Fed. Cir. 2002) (following the USPTO's section 112 written description requirements because the court was "persuaded" by those guidelines). While the courts ultimately upheld those guidelines as in agreement with their precedents, certainty would be better served if the USPTO had authority to promulgate such guidance through rules to which the courts deferred. The USPTO is in a better position than the courts to gather the views of the community on such emergent issues by obtaining public comment. Through rulemaking, the USPTO could, like other agencies, interpret the laws it applies with the input of many interested parties and organizations, and at the times when interpretation is most needed. Moreover, the need to interpret statutory provisions is equally important to the USPTO's trademark registration determinations. Those determinations can involve the application of statutory standards, e.g., the prohibition of registering scandalous marks, that are specific to the USPTO's administration of the law. In short, the USPTO should have the same authority to interpret the laws it applies as do other agencies.

iii) The USPTO has the authority to prescribe the specifics of the conduct of attorneys and agents who practice before it. *See Bender v. Dudas*, No. 2006-1243, slip op. (Fed. Cir. June 21, 2007). Thus, the USPTO has promulgated rules in part 10 of 37 C.F.R. that regulate the conduct of practitioners. Those regulations are entitled to *Chevron* deference. *See Bender*, slip op. at 14. However, because this area of deference is limited to the USPTO's oversight of conduct, and does not extend to the result of that conduct, substantial uncertainty still exists. For example, the USPTO's definition of inequitable conduct is not given deference in a court proceeding where a patent is challenged based on alleged inequitable conduct. *See Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1315 (Fed. Cir. 2006) (explaining that the USPTO's standard for inequitable conduct is an appropriate starting point to which the court is not bound). Providing the USPTO with rule making authority across the full spectrum of the laws it applies in day-to-day operation would add needed certainty to the intellectual property rights it grants.

c. Please provide a list of authorities that the USPTO believes fall within the scope of being necessary to "govern the operation and organization of the Office."

In the Patent and Trademark Office Efficiency Act, Congress gave the USPTO "responsibility for decisions regarding the management and administration of its operations and...independent control of its budget allocations and expenditures, personnel decisions and processes, procurements, and other administrative and management functions..." 35 U.S.C. 1. While constraints may arise that affect the exercise of that responsibility, those constraints are not particularly related to whether the USPTO has rulemaking authority to "govern the operation and organization of the Office."

4. I've attached a June 7, 2007 letter to Congress from Chief Judge Paul Michel, of the U.S. Court of Appeals for the Federal Circuit, in which he states that "plucking limited language out of the long list of factors summarized in the Georgia Pacific case that may be relevant in various cases is unsatisfactory, particularly when cast as a rigid requirement imposed on the court, and required in every case, rather than an assignment of a burden of proof imposed on the party that should bear that particular burden, and that would only arise in a rare case." He also states that the proposed legislation would require "a new kind of macroeconomic analysis that would be extremely costly and time consuming," and would result in severe court delays as well as increased attorneys' fees and costs. Do you agree or disagree with Chief Judge Michel's assessment? Why?

We note that some of Chief Judge Michel's concerns are consistent with those expressed in the DOC/USPTO views letter indicating that we do not believe that a sufficient case has been made for a legislative provision to codify or emphasize any one or more factors that a court must apply when determining reasonable royalty rates. We agree with Chief Judge Michel that, in any effort to change the way courts assess damages for patent infringement, Congress should attempt to avoid creating unnecessary burdens or delay in the court system.

5. How does S.1145 protect small and independent inventors? If there are protections in the bill, are they adequate?

The bill as introduced has undergone and will undergo revisions through markup and floor proceedings. The intent of the bill is to modernize the U.S. patent system through changes designed to improve patent quality, reduce litigation costs and further international harmonization of patent laws. Those are worthy goals that we support and we are confident that the final bill that emerges from the legislative process will contain provisions that effectively advance those goals in a balanced manner that serve the best interests of our nation's innovators, large and small.

In particular, we should note that the manager's amendment, adopted in committee markup, establishes a micro-entity status for truly small and independent inventors. We support that provision and believe that it will effectively serve to ensure that small and independent inventors are not overly burdened with any future revisions in application filing and examination requirements. Micro-entity status may also serve as the basis for eligibility for future fee reductions or adjustments and other possible preferred treatment and assistance.

Small and independent inventors also will benefit from overall quality improvements that will result from more informed decision making during the examination process. Examiners will have the benefit of more complete and relevant information submitted with the application and during examination by interested third parties. Small and independent inventors want a patent examination system that "gets it right" the first time. Concentrating our review on the most pertinent information relevant to patentability is an efficient means to "get it right" the first time.

Should patent validity issues arise, a well-designed post-grant review mechanism will allow disputes as to the patentability of issued patents to be resolved more expeditiously and economically than through expensive litigation in the courts.

6. **Does S.1145 encourage innovation and investment that businesses need in order to flourish? How?**

Our strong patent system is recognized as a critical driving force in encouraging invention, innovation and investment and, again, we are confident that the final bill that emerges from the legislative process will contain provisions that improve our patent system consistent with the needs of U.S. businesses.

Elements of the bill do, in our view, encourage innovation and investment by assisting us in our goal of issuing quality patents. For example, by expanding the ability of third parties to submit information that they believe is pertinent to a pending application, section 9(b) of the bill increases our ability to assure that a patent we issue is one that investors can rely on.

Our suggested amendments to provide for applicant quality submissions and revisions to address the doctrine of inequitable conduct and unenforceability will help ensure that patent applicants fully and fairly share relevant information with the USPTO. Full disclosure of relevant information improves the patent application examination process and ultimately the quality of issued patents. Quality patents are essential to all stakeholders in the business community. Similarly, a well-designed post-grant review mechanism will allow disputes as to the patentability of issued patents to be resolved more expeditiously and economically and thus resolve disputes that can delay investment in new technology.

7. **What is the impact of this bill on the American consumer? How does it help or hurt the American public.**

A strong patent system encourages innovation and investment that translate into development and marketing of new and improved products and services that benefit American consumers and the general public. Those improved products and services promote competition and choices in the marketplace and increase our standard of living and the quality of our lives and health.

The provisions that help the USPTO issue high-quality patents with improved and more complete, relevant information available during the examination process and allow for rigorous, prompt resolution of disputes will facilitate the support that patents can give to bringing new technology to market. Further, a properly designed rule-making provision would expand public participation in the patent system through the notice-and-comment process.

U.S. SENATE COMMITTEE ON THE JUDICIARY JUNE 6, 2007 HEARING ON PATENT REFORM SEN. *KYL'S* QUESTIONS FOR THE RECORD

(EACH QUESTION IS FOR EACH WITNESS EXCEPT WHERE OTHERWISE SPECIFIED)

(ANSWERS OF JOHN A. SQUIRES)

1. One of the most controversial provisions of S. 1145 is its rearticulation of the standard for computing reasonable-royalty damages. Statements made by proponents and opponents of this provision suggest that the two sides do not disagree so much over the relevant principles as they do over the means of codifying those principles. It appears to me that both sides generally agree that reasonable-royalty damages should be calculated as follows:

> *First,* if the patented invention is the principal basis for consumer demand for the product, then the patentee should be awarded damages based on the entire market value of the product or process. Under no other circumstances should damages be based on the entire market value of the product or process.
>
> *Second,* if the entire-market-value test is not applicable, and market-based measures of a reasonable royalty such as negotiated royalties paid for the same invention by third parties, or prices paid for non-infringing substitutes - are available, then those measure [sic] should be used to determine a reasonable royalty. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.
>
> *Third,* if neither the entire-market-value nor the market-based measures are applicable, then apportionment should be used to calculate damages. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.

Do you agree or disagree with this articulation of the principles that should govern the calculation of patent reasonable-royalty damages? If you disagree, please provide a specific explanation, or please suggest any other way in which you believe that this expression of the principles governing the award of reasonable-royalty damages should be modified.

RESPONSE:

We agree with the articulation with several, slight modifications. First, a reasonable-royalty calculation should only be based on the entire market value of the product or process

if the patented invention is the "overwhelming" basis for consumer demand. If a patent holder is allowed to recover the entire market value where the patented invention is only the "predominant" basis for consumer demand, then the patent holder is permitted to charge a royalty on aspects of the product or process that are not part of the inventor's contribution. Where those aspects are significant but not overwhelming, the patent system rather than encouraging innovation instead works to prevent and/or discourage economic activity that is not directly attributable to the patent. This problem is particularly acute in industries or service sectors where numerous components - both patented and non-patented - make up the final product or process. Second, even where market-based measures are available, the court should still make an apportionment determination to ensure that the royalty is calculated on the patent's specific contribution over the prior art. In this way, the court will be serving as a needed gatekeeper to preclude excessive awards.

2. Some advocates of patent reform have stated that the Federal Circuit has inappropriately broadened the criteria for applying the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. If you agree that the Federal Circuit has inappropriately broadened the criteria for applying this damages measure, please identify the cases in which it has done so.

RESPONSE:

We believe that the Federal Circuit has expanded the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. For example, in *Tec Air, Inc. v. Denso Manufacturing Michigan, Inc.*,[1] a suit involving a patented method and device for balancing a fan inside an

[1] 192 F.3d 1353 (Fed Cir. 1999).

assembly, the Federal Circuit upheld a damages award based upon the sales of entire radiator and condenser assemblies. The court allowed application of the entire-market-value rule because the radiator and condenser assemblies "constitute a functional unit."

3. In his testimony (at page 11), Mr. Squires suggested with regard to the entire-market-value rule that the committee should "ensure the market value is based overwhelmingly on the patent's specific contribution over prior art." The bill currently states that the patent's contribution must be the "predominant" basis for consumer demand for the product. Do you believe that "predominant" is the appropriate word to employ here? Would "overwhelming" be more appropriate? Would "principal" be more appropriate? Please explain your answer.

RESPONSE:

We believe that "overwhelming" is the most appropriate standard and incorporate by reference our answer to question one.

4. In some cases, courts appear to have applied the entire-market-value standard to measure damages, and then awarded the patentee only a small percentage of that value as the damages. Assuming that the entire-market-value test is the appropriate means of calculating damages in a particular cases [sic], is this approach correct? For example, if the infringed invention is the basis for consumer demand for the product, is it appropriate for a court to award a percentage of the sale price of a product as the royalty, or should the court award the patentee all profits earned from the sale of the product?

RESPONSE:

The court should be free to take economic factors into account when awarding a reasonable royalty under the entire-market-value test. Even where the patented product or process is the overwhelming reason for consumer demand, other market factors may dictate that only a portion of the profit be awarded the patentee. For example, the end product or service may require significant capitalization to bring to market. The risk inherent in making that investment cannot be ignored or the activity itself will never take place.

5. If apportionment is used to calculate damages, should the infringer bear the burden of proving that his and others' contributions added value to the product and should be deducted from damages? Please explain your answer.

RESPONSE:

The burden of proof should be on the patent holder to establish damages where apportionment is used. This is consistent with the vast majority of damage law which places the burden on the party seeking recovery to establish its damages with a reasonable degree of certainty.[2] Moreover, the patent holder is in the best position to value the patent's specific contribution over the prior art.

6. The bill's articulation of the apportionment test as based on "the patent's specific contribution over the prior art" appears to require the trier of fact to determine what, if anything, the invention added to prior art. Given that, if the trier of fact is measuring damages, it has already decided that the patent is valid and infringed - *i.e.*, that it did add to prior art - doesn't the bill's way of articulating the apportionment test require the trier of fact to revisit questions that it necessarily already decided when it found that the patent is infringed? If so, is this appropriate?

RESPONSE:

We do not believe that the apportionment test in the bill requires the trier of fact to revisit questions that it already decided. While it is true that in order to find the patent valid and not infringed it is likely that the trier of fact determined that the claims did add to the prior art, the trier of fact did not value that contribution. Under the proposed legislation, this valuation step is simply added.

7. Does the bill's "specific contribution over prior art" articulation of the apportionment test depart from current law? (If so, please cite cases that articulate the test differently.)

---

[2] *See Schiller & Schmidt, Inc. v. Nordisco Corp.*, 969 F.2d 410, 415 (7th Cir. 1992) (Posner, J.) ("people who want damages have to prove them . . . .")

RESPONSE:

Current law is unevenly applied so that apportionment may or may not be a factor when conducting a damages analysis. The language in the proposed legislation affirmatively requires the court to determine that a reasonable royalty is limited to the economic value attributable to the patent's specific contribution over the prior art. Moreover, under the proposed legislation, the royalty rate cannot be based on the entire market value unless the patent's specific contribution over the prior art is the predominant basis for market demand. Under existing Federal Circuit case law, the entire-market-value test can be used if the patented system or process is part of a functional unit.[3]

(For all witnesses except Ms. Biberstein.)

8. In her testimony (page 9), Ms. Biberstein criticizes the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. She states:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

Do you agree with Ms. Biberstein that deducting all prior art would deny appropriate compensation to the inventor of a novel-combination invention? Please explain your answer.

---

[3] *See Tec Air Inc. v. Denso Manufacturing Michigan, Inc.*, 192 F.3d 1353 (Fed. Cir. 1999).

RESPONSE:

We respectfully disagree with Ms. Biberstein's criticism as injecting a limitation not fairly found in the language itself. The proposed legislation does not limit the value of combination patents. Rather, it requires the royalty to be based on the patent's specific contribution over the prior art. If the contribution itself is a unique combination that enhances functionality or value, then the proposed legislation allows the patent holder to receive a commensurate royalty. If, however, the contribution over the prior art is de minimis, the proposed legislation prevents a windfall to the patent holder.

(For Ms. Biberstein only.)

8. In your testimony (page 9), you criticized the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. You stated:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product ~ two facts that are particularly applicable to biotech patents.

If a combination truly is novel, nonobvious, and useful, wouldn't the whole be worth more than the sum of its parts? In other words, if the combination of prior art really did add value to a product beyond that which already existed in the prior art elements when used separately, wouldn't the value added by the combination of elements (the added worth of the whole) remain once that prior art (the sum of the parts) had been deducted?

RESPONSE:

No response is requested.

9. If you believe that the bill's "specific contribution over prior art" articulation of the apportionment test is inappropriate, please suggest alternative ways in which you believe that the test should be articulated.

RESPONSE:

We believe the bill's "specific contribution over prior art" articulation is the appropriate test.

10. S. 1145 also requires that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages. Do you believe that the use of the language "specific contribution over prior art" is appropriate to identify that part of the invention that generates consumer demand when applying the entire-market-value test? If not, please suggest other language that you believe is appropriate.

RESPONSE:

We support the proposed bill's requirement that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages.

11. Please identify any Federal Circuit decisions (other than those identified in your answer to question 2) that you believe adopt an incorrect legal standard for calculating patent damages.

RESPONSE:

In addition to the Federal Circuit decision referenced in our answer to question 2 above, we believe that the following Federal Circuit decisions allowed a patentee to charge a royalty in excess of the patent's economic value:

- *Interactive Pictures Corp. v. Infinite Pictures Inc.*,[4] allowing the inclusion of all of the patent proprietor's products in the royalty base, rather than merely the infringing image viewing system;
- *Bose Corp v. JBL Inc.*,[5] assessing damages based on the entire loudspeaker system, rather than just the infringing port tube;
- *Micro Chemical Inc. v. Lextron Inc.*,[6] authorizing a royalty award based on sales of unpatented lost microingredient sales; and
- *Fonar Corp v. General Elec. Co.*,[7] upholding jury's award based upon value of entire MRI machine where the patented invention was limited to a specific imaging feature.

12. At page 7 of his May 18, 2007 letter commenting on S.1145, the General Counsel of the U.S. Department of Commerce endorsed some but not all of the bill's limits on the award of treble damages for willful infringement. In particular, he excluded from his endorsement proposed section 284(b)(3)(A) and (B), which create a defense to willfulness that the infringer had an "informed good faith belief" that the patent was invalid or was not being infringed. If you support this provision, please explain why you believe that this provision is appropriate. Do you believe that this provision goes beyond current law? If not - or if you believe that it only adds to a defense that exists under current law - please cite any judicial decisions that articulate this defense in current law. Should the provision also require that the good-faith belief be a reasonable one? Are there any other limits that you believe should be placed on this defense?

RESPONSE:

We support the inclusion of section 284(b)(3)(A) and (B) in the proposed legislation, creating a defense to willfulness that the infringer had an "informed good faith belief" that the patent was not invalid or was not being infringed. This provision restores balance to the patent law and brings it into alignment with other areas of law that permit enhanced or punitive damages only upon a showing of reprehensible conduct.

---

4 274 F.3d 1371 (Fed Cir. 2001).

5 274 F.3d 1354 (Fed. Cir. 2001).

6 318 F.3d 1119 (Fed. Cir. 2003).

7 107 F.3d 1543 (Fed. Cir. 1997).

Currently, willful infringement liability and enhanced damages is triggered merely by a 'negligence'-type standard, with an affirmative duty on the alleged infringer to obtain an exculpatory opinion upon which it must rely in good faith. Generally, the alleged infringer must waive their attorney-client privilege to inject the opinion into their willfulness defense. We note that the waiver with respect to the opinion can also waive privilege with respect to trial counsel as well.[8] Thus, we believe this negligence-type standard is unfair and incorrectly shifts the burden to the defendant. As in other areas of the law, the plaintiff should bear the burden to prove the alleged infringer's reprehensible conduct by clear and convincing evidence.[9]

Where an alleged infringer is acting in informed good faith that he is not infringing, reprehensible conduct is not present. Further, the requirement that the alleged infringer's good faith defense be informed has two salutory effects. First, it injects some level of reasonableness into the standard without mandating an objective standard that could altogether swallow the good faith rule. Second, it encourages the alleged infringer to conduct an investigation without the potential draconian consequences that exist under current common law. We further believe that the proposed language modifies the common law where such a defense may not insulate an alleged infringer from a finding of willfulness.

---

[8] *See In re EchoStar Communications Corp.*, 78 U.S.P.Q. 2d 1676 (Fed. Cir. 2006) (holding that the scope of waiver of the attorney-client privilege applies to all communications relating to the same subject matter).

[9] *See generally, A Proposal to Shore Up the Foundations of Patent Law that the Underwater Line Eroded,* 20 Hastings Comm. & Ent. L.J. 721, 729-30 & n. 44 (1998).

13. The Commerce Department GC's letter also excluded from its endorsement proposed section 284(b)(4), which requires that willfulness be plead only after the patent has been found to be valid and infringed, and which requires the court to make the finding of willfulness. Do you support, oppose, or have no objection to this provision? If you support or oppose it, please explain why.

RESPONSE:

We support the proposed legislation that requires willfulness to be pled only after the patent has been found to be valid and infringed, and which requires the court to make a finding of willfulness. Under the present system, almost every claim of patent infringement includes a claim of willful infringement. In addition to adding another layer of cost to already pricey patent litigation, the willfulness allegation creates several tactical landmines for the alleged infringer. These include issues regarding the attorney-client and work-product doctrine that can hinder an alleged infringer's ability to defend itself. The proposed legislation can eliminate some of the gamesmanship that goes on presently while helping to level the playing field. We also support the language that the court makes the willfulness determination. Allowing the court to make that determination increases the court's flexibility in resolving the issue. For example, the court could conduct a separate willfulness hearing after a jury determination.

14. It appears that the Federal Circuit's recent *Knorr-Bremse* decision precludes a trier of fact from drawing an adverse inference with regard to willfulness from the failure of an alleged infringer to obtain legal advice with regard to a patent. In light of that decision, is proposed section 284(b)(3)(C) of the bill necessary?

RESPONSE:

It is our belief that proposed section 284(b)(3)(C) of the bill is still necessary.

By way of background, the SIA, predecessor organization to the SIFMA, one of the three industry organizations on whose behalf I am providing this testimony, filed an amicus brief in *Knorr-Bremse* on three of the questions the Federal Circuit raised and was cited by Judge Dyk in his dissent from the decision on the 'substantial defense' question. We provide herewith a copy of our industry brief for the record.

More particularly, the Federal Circuit's decision in *Knorr-Bremse* only resolved the issue of whether adverse inferences can be drawn. The court did not reach the issue of whether the decision of the infringer not to present evidence of advice of counsel is relevant to a willfulness determination. We believe that the proposed language is necessary to restore balance to the patent system by eliminating the tactical advantage a patent holder now has under the current state of the law. Because the law is unsettled, an accused infringer has to be extremely careful in communicating with opinion and trial counsel or a waiver may be found. This impedes the accused infringer's ability to have full and frank communications with counsel.

15. In his testimony (at page 10) with regard to proposed section 284(b)(2)(B), Mr. Squires states that:

> While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice threshold.

Do you agree that proposed 284(b)(2)(B) should be modified to ensure that it describes "blatant copying" and not "mere notice?" Should paragraph (B) specify that, in addition to requiring that the infringer had knowledge of the patent, the

infringer also must be aware of a substantial risk that his product infringes the patent? Should paragraph (B) require a showing that the infringer learned of the patented art from the patent itself or from a product licensed under the patent (or should it be a defense to an "intentional copying" finding that the infringer show that he learned the patented art from other sources)?

RESPONSE:

We believe that proposed 284(b)(2)(B) should be modified slightly to clarify that mere notice alone is not evidence of copying.

16. Is there any other element of proposed section 284(b) that you believe inappropriately limits the award of treble damages? If so, please provide a specific explanation.

RESPONSE:

We believe, with the suggested changes in answer 15, that the proposed language of 284(b) strikes the appropriate balance.

(For Mr. Bernstein only.)

17. You stated in your testimony (page 9) that apportionment is only appropriate "if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate."

    A. Assuming that market-based measures such as established royalties are unavailable, do you believe that apportionment should not be used unless the patented invention is only an insignificant and separable part of the overall product?

    B. There presumably are a wide range of patented inventions that, while constituting more than an insignificant and separable part of the infringer's product, also do not constitute the principal basis for consumer demand for the product. Again assuming that market-based measures are unavailable, what measures do you believe should be employed to gauge royalties for inventions that fall within this range?

RESPONSE:

No response is requested.

(For Mr. Bernstein only.)

18. You state in your testimony (page 12) that:

> A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention is novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention,* not merely a parsing of claim elements, that reflects the patent's contribution over the prior art.

What is the difference between showing that an invention is "novel" and showing that it makes a "specific contribution over prior art?" Your last sentence quoted above appears to suggest that merely the invention as a whole (rather than each of its claims) must add to prior art. Is this what you mean? If so, and if merely the "invention as a whole" (rather than each of its elements) must add to prior art, why should elements of the invention that do *not* add to prior art be considered when applying either apportionment or the entire-market-value rule? To state this question differently, to the extent that a validly patented invention includes elements that do *not* constitute a specific contribution over prior mi, why should the patentee be compensated for such elements in an apportionment analysis - or be allowed to use the market demand generated by such elements to advocate for application of the entire-market-value rule to gauge the value of his invention?

RESPONSE:

No response is requested.

(For Ms. Doyle only.)

19. At pages 7-8 of your testimony, you described a situation in which a patent plaintiff sued Palm on account of an allegedly infringing component in a Palm product, rather than the supplier of the component. You described this as "gaming behavior." Do you believe that it is always inappropriate for a patent plaintiff to sue a manufacturer who purchases an allegedly infringing component and incorporates that component into its product, rather than (or in addition to) suing the supplier of the component itself? Setting aside the specific case that you described, if a manufacturer does incorporate

into its product a component that infringes a valid patent, it would appear to me possible that this manufacturer paid a lower price for the component because of that infringement - and thus profited from that infringement. In such a case, should the patentee be permitted to recover for that infringement from the manufacturer that purchased and used the component?

RESPONSE:

No response is requested.

20. In his testimony, Mr. Dudas expressed concern about the PTO's ability to handle the volume of post-grant review petitions, particularly if (as in S. 1145) such review is available for patents granted prior to the enactment of such a procedure. In order to prevent the volume of petitions from overwhelming PTO's resources, would you favor the following limits on the post-grant review procedure? (please explain your answers):

    A. A provision in the legislation that the post-grant review procedure shall not become available until the PTO certifies that it has sufficient resources to hear post-grant review petitions.

    B. A provision making PTO's exercise of post-grant review discretionary, akin to the U.S. Supreme Court's certiorari review. (Perhaps to be accompanied by a requirement that the PTO decide whether to hear a post-grant review petition within a specific amount of time.)

RESPONSE:

We believe any limitations on the post-grant review procedure relating to the PTO's ability to handle petitions should be narrowly tailored to address start-up issues. As for the particular limits:

A. We do not support a triggering provision that places a requirement on the PTO to certify that it has sufficient resources to hear post-grant petitions. Rather, it should be a general implication that the PTO would be tasked with creating a post-grant petition office and staffing such an office with qualified Examiners and Attorneys with proven track records to perform the reviews.

While it is reasonable to expect some lag time before the PTO is processing petitions with full efficiency, we believe that resources can and should be made available to the PTO to perform this important function.

B. We would not be in favor of a discretionary post-grant review. The legislation should entail a mandatory post-grant review upon the filing of a petition. The exercise of discretionary authority would undercut the importance of the post-grant review process. In addition, the PTO's ability to exercise discretionary authority may create other ancillary issues. For example, can a decision by the PTO to decline a post-grant review be appealed to a federal court, what standard of review would apply to such an appeal and what federal court would hear such an appeal.

21. S. 1145 requires that post-grant review be completed within 12 months, with a possibility of a six-month extension. Do you believe that this deadline is realistic - that the PTO will be able to abide by it in the large majority of cases - if the procedure that is implemented is identical to that in S. 1145 as introduced in the Senate? Do you believe that this deadline (or a longer deadline) would be realistic if the post-grant review procedure were limited as described in the preceding question?

RESPONSE:

It is our position that it is important that the post-grant review process be expeditious in nature while providing a thorough review. It is reasonable to anticipate that the process should be completed within 12 months of the filing of a petition for review. In contrast to the normal patent application and prosecution process, the proposed legislation requires the petitioner to "set forth in writing the basis for the cancellation, identifying each claim challenged and providing such information . . . copies of patents and printed publications that the cancellation petitioner relies upon in support of the petition." *See* S.1145, Sec. 323.

Additionally, the Director of the PTO would be authorized under S.1145 to require any other information through regulation. In this regard, the post-examination process will involve the provision of information that is relevant to such a review without an obligation for the PTO to perform an additional prior art search. This is in contrast to the normal search that must be performed by a PTO Examiner during the course of prosecution of a patent application. The Examiner's search is performed quickly while the Examiners are under significant time constraints to review and compare the search results against the subject matter disclosed in an application. Accordingly, a post-grant review procedure should involve a narrowly-tailored petition supported with prior art that is on point for the Examiner and/or attorney to perform a suitable analysis. The availability of an extension of six months also provides an additional backstop for the PTO to thoroughly perform a post-grant review for the more unique and complex reviews.

The limitations in the previous question would affect the deadline in differing ways. The certification process would delay any petitions from being filed but then would have no real effect. The second limitation could have a significant impact but only if the PTO declined a significant number of petitions.

22. The post-grant review procedure proposed in S. 1145 does not apply a presumption of validity to patents reviewed in such a proceeding. Do you believe that this omission is appropriate or necessary? If so, why?

RESPONSE:

We do not believe that a presumption of validity is appropriate in a post-grant review. The omission of a presumption of validity of a patent under review is akin to a de novo review of the patentability of the claims, which is appropriate for a post-grant review.

23. Under the post-grant review procedure proposed in S. 1145, a party challenging a patent is only estopped from raising those claims that he did raise before the PTO, not those that he could have raised.

A. Do you believe that this restriction on estoppel to claim preclusion (rather than issue preclusion) is appropriate or necessary? If so, why?

B. It appears to me that under the post-grant review procedure as proposed in the bill, a party who wishes to challenge a patent and who knows of five bases to allege invalidity could assert only two of those bases in the post-grant review procedure, saving the remaining bases to assert in federal district court. Are such tactics possible under the procedure as proposed in the bill? Should the bill be modified to preclude such tactics, or are such tactics an acceptable price to pay for the advantages of not precluding a party that exhausts post-grant review from asserting additional validity challenges in district court?

RESPONSE:

A. The restriction on estoppel to claim preclusion rather than issue preclusion is not appropriate or necessary. An alleged infringer should always be afforded the right to defend itself against claims of patent infringement regardless of whether the patent which is the subject of the litigation was subjected to post-grant review. Such a restriction may have a chilling effect on both the post-grant review process as well as on corresponding or anticipated litigation.

B. It appears that a petitioner would be prohibited from subsequently challenging any claim subject to a post-grant review based on any ground that the petitioner raised during a post-grant review process. *See* S.1145, Sec. 334(b). Accordingly, a petitioner with five bases to challenge a patent's claims through a post-grant review proceeding may only bring two of the five bases and still be able to rely on the other three bases in subsequent litigation. S.1145 should not be modified to preclude such a strategy because a petitioner in a post-grant review may soon be, or already may be, a defendant in patent infringement litigation and should be able to advance arguments that were not previously argued in a post-grant review.

24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown. Do you believe that this limitation is appropriate or necessary? Please explain your answer. If you believe that this limit is not appropriate, please suggest an alternative proposal.

RESPONSE:

The ability of a patentee to amend claims once, coupled with the ability to further amend claims for good cause, is an appropriate limitation on the post-grant review process. The patentee is in a suitable position to compare the prior art against its invention claimed in a patent and then to determine suitable claim amendments. Such amendments may also render a petition moot in cases where the USPTO and/or a petitioner is satisfied that the amendments appropriately narrow the scope of any claim at issue.

25. If a patent challenge is pending in district court, and the alleged infringer commences post grant review proceedings before the PTO, should the district-court action be stayed pending resolution of the post-grant review? Should such a stay be granted if requested by the patentee? Should any other restrictions be placed on such stays?

RESPONSE:

District court litigation should not be automatically stayed pending the resolution of a post-grant review of a patent forming the basis of the litigation. The district court judge hearing the patent infringement litigation should be able to exercise his or her discretion in determining whether to stay the litigation subject to the outcome of the post-grant review by the PTO.

26. In his testimony (at page 15), Mr. Bernstein expressed concern about the breadth of the rulemaking authority that S. 1145 would grant to the PTO. For what purposes do you believe that the PTO needs rulemaking authority? To what subject matter should the rulemaking authority granted by this bill be limited?

RESPONSE:

We believe that rulemaking authority should be limited to procedural matters and should not be allowed to undermine substantive statutory and other patent rights.

27. One concern expressed about the current patent-litigation environment is that a few bad actors send large numbers of letters asserting infringement or "inviting" licensing of their patents without conducting a reasonable investigation as to whether the letter-recipient's product actually infringes their patents. *(See, e.g.* Doyle testimony at pp.6-7.) Would you support a provision requiring that a district court impose an appropriate sanction at the conclusion of an infringement suit if, on the motion of the defendant, the court found that no reasonable person skilled in the art would conclude that the plaintiffs patent was infringed by the defendant's product? Should such sanctions be paid to the defendant or to the PTO - and if to the PTO, should the district court be permitted to consider assertions of invalidity made against other parties and their products by the plaintiff?

RESPONSE:

We do not believe that such a provision is necessary nor would it solve the problem. Rule 11 of the Federal Rules of Civil Procedure already provides a meaningful tool to discourage frivolous patent claims. Rule 11, however, like the suggested provision, does not address the frivolous notice letter. This problem is best addressed by modifying the current state of the willfulness doctrine that triggers an expensive and disruptive investigation.

POST-HEARING QUESTIONS FOR THE RECORD SUBMITTED TO MR. BERNSTEIN, MS. DOYLE, MR. SQUIRES, AND MS. BIBERSTEIN FROM SENATOR TOM COBURN

"PATENT REFORM: THE FUTURE OF AMERICAN INNOVATION" BEFORE THE SENATE JUDICIARY COMMITTEE - JUNE 6, 2007

1. Would the industry you represent object to language being added to S. 1145 which would permanently end the practice of Congressional fee diversion from USPTO? If so, why?

RESPONSE:

For many years, the SIA (predecessor organization to SIFMA) has supported proposals and written letters to Congress to end the practice of fee diversion and these efforts have been supported by the Financial Services Roundtable as well. Ensuring that the PTO has sufficient resources is crucial for improving and maintaining patent quality. A permanent fix via the bill would be welcome.

2. The US Supreme Court has ruled on several recent cases that change the current environment for patent law, including the balance of power between patent owners and users and related protections for intellectual property. To what extent do such cases address the concerns that originally led to the call for patent reform legislation years ago?

RESPONSE:

We believe that recent U.S. Supreme Court rulings on patent law represent positive but incremental changes and do not fully resolve the problems of patent quality that are addressed by the proposed legislation. Certain relevant U.S. Supreme Court cases relating to patent law are as follow:

- In *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), the Supreme Court addressed the issue of "obviousness" when assessing patent validity by broadening the standard for establishing the "motivation" element of an obviousness analysis.

- In *Microsoft Corp. v. AT&T Corp.*, 127 S. Ct. 1746 (2007), the Supreme Court addressed a narrow issue of damages for patent infringement by holding that the prohibitions of the export provision of Section 271(f) of the patent laws did not extend to exported software.

- In *MedImmune, Inc. v. Genentech, Inc.*, 127 S. Ct. 764 (2007), the Supreme Court addressed the issue of declaratory-judgment actions by holding that a licensee may challenge the validity of a patent without first committing an act of infringement.

- In *eBay Inc. v. MercExchange, LLC.*, 126 S. Ct. 1837 (2007), the Supreme Court addressed the issue of injunctive relief by holding that courts must apply the usual four-factor test to determine whether a permanent injunction is warranted.

Of these, we believe the *eBay* ruling was the most needed and had the most profound and immediate effect in our industry. In fact, the FSR, and both The Bond Market Association and Securities Industry Association, which now comprise SIFMA, briefed the issue as amici to the Supreme Court. I attach a copy of our joint brief for the record.

In our brief, we argued that the 1908 doctrine underlying the automatic injunction rule was a product of the Industrial Revolution and never envisioned the convergence of banking, technology and the interconnectedness of market participants that exists today. We demonstrated that liquid markets and efficient financial system operation are critical to the financial markets and U.S. economy and present a paramount public interest and pointed out that a close call in the treasury markets was averted only by the U.S. Treasury Department's statement of interest against the award of a *preliminary* injunction in a private patent dispute. To us, it was shocking that the U.S. court system lacked any facility to receive such evidence in permanent injunction cases, where the pubic harm may be even more severe and, in fact, there may be no irreparable harm to the patent holder. We were pleased that the Supreme Court restored a proper balancing of interests to help remove the uncertainty and specter of severe operational risk to the U.S. financial system, markets and exchanges.

Nevertheless, these cases have not broadly resolved the imbalances within the patent system itself, most particularly in the areas of venue, interlocutory appeal, damages apportionment and willful infringement jurisprudence.

2a. Wouldn't it be wise for Congress to consider reshaping S. 1145 to focus on improving patent quality and wait and see whether, and to what extent, these Supreme Court decisions rectify the perceived imbalances and quality concerns that led to calls for patent reform legislation?

RESPONSE:

As previously discussed, the U.S. Supreme Court's rulings provide helpful, but only incremental change to patent law and still leave multiple areas out of balance and unaddressed. A more wide-ranging, uniform and systematic rebalancing is necessary. Only Congress can provide the type of re-architecting that is necessary to incentivize and fuel America's competitive intellectual property needs for at least the next several decades.

3. The strict apportionment language limiting the potential calculation of any damage awards would allow a patent infringer to know up front the cost of infringement, which can be weighed against the cost of legally licensing the patented product or process. Doesn't this diminish the cost of infringement and make infringement just another business cost decision?

RESPONSE:

We believe that the apportionment language requires the court to serve a gatekeeper function to ensure that a damage award does not exceed a patent's contribution. There is no requirement in the proposed language that the apportionment analysis be performed at the initial stages of litigation. In fact, damages analysis in patent infringement litigation is typically performed late in litigation, near the end of the case. It is critical to the balance of the patent system and the economy that an infringer not pay damages greater than a patent's value. The apportionment language places into context the actual value of a patent.

4. What evidence is there of a patent litigation crisis? Please provide objective data that shows the amount of patent litigation in the U.S., the number of patent lawsuits filed in each of the past three years, and the amount of litigation as a percentage of patents issued and as a percentage of R&D spending.

RESPONSE:

We do not contend that a litigation crisis exists. Rather, we believe that U.S. patent law should evolve to keep pace with emerging technologies and industries. Recently, patented technology is more prevalent in the financial services industry and in other areas of technological interoperability, such as software. For example, the problem of failing to apportion damages is evident in the damages analysis in *Eolas Technologies Inc. v. Microsoft Corp.* In *Microsoft*, the infringed patent covered only a small part of Microsoft's integrated product consisting of its Internet Explorer Web browser bundled with its Windows product. However, the damages award was based on the total revenues of the bundled product rather than the economic value of the infringed patent. This problem would be resolved by the apportionment language of the proposed legislation.

5. A few recent cases have fueled the argument that legislation is needed to prevent "windfall" or very large licensing fees or damage awards. Please provide objective data that shows the dollar amount of license fees paid as a percentage of GDP for each of the past three years.

RESPONSE:

To the best of our knowledge, the requested objective data is not accessible in any statistically reliable form due, in part, that most licensing arrangements and fees in private industry generally are kept confidential.

5a. Additionally, please highlight any company that has identified large patent litigation damage awards or patent licensing fees as a "material risk" in their SEC filings?

RESPONSE:

Most publicly-traded companies identify the effects of potential or ongoing patent litigation as a "material risk" in SEC filings. To the best of our knowledge, a compilation of such data is not publicly available.

6. S.3818, the precursor to S.1145, included provisions on "loser pays" for patent litigation attorney fees. Should such language be returned to the bill to help address allegations related to speculative litigation in the patent system?

RESPONSE:

We do not believe language should be included in the bill requiring that the "loser pays" for patent litigation attorneys' fees.

RESPONSES OF JOHN A. SQUIRES TO WRITTEN QUESTIONS SUBMITTED BY SENATOR CHUCK GRASSLEY FOR SENATE JUDICIARY COMMITTEE HEARING ON PATENT REFORM, JUNE 6, 2007

QUESTIONS FOR JOHN SQUIRES

1. At the hearing, with respect to post-grant review, you testified in favor of a second window. But if the law provides for a second window that allows a third party to challenge a patent at any time during a patent's term, why wouldn't the third party wait until as late as possible to challenge that patent? With a second window available, wouldn't there be an incentive for a third party to wait on the sidelines and avoid spending money and resources to challenge the patent by waiting until and unless the patent owner brought the patent to their attention? What incentive is there for a challenger to use a first window? Wouldn't this change in law actually harm patent quality? How can patent quality be improved if there is no real meaningful incentive to use a first window?

RESPONSE:

While it is possible that third parties may wait to challenge a patent late in its term, we believe most third parties will act as rational economic actors and challenge a patent when, and if, there is an economic interest to do so. For example, it is generally unlikely that a third party will challenge a patent just before the patent is set to expire when there has been no litigation threat or "licensing invitation."

Currently, a disincentive to challenge exists making it more beneficial for third parties to horde their invalidating prior art until litigation and avoid seeking patent reexamination (provided they possess the limited type of prior art necessary to trigger a reexamination). This disincentive arises largely as a result of the severe estoppel that attaches to the faulty inter-partes reexamination procedure as to what "could have been raised."

However, under the schema the bill proposes, with both a first window (from grant, i.e. a "calendar window") and a second window (i.e. a "notice window"), ample reasons exist for third parties to avail themselves of the first window (assuming of course they first find the patent, discern the scope of the claims and further correlate those claims to a commercial product or service within their business). These reasons include the decreased evidentiary burden -- preponderance instead of clear and convincing -- likely substantial cost savings over litigation and the ability to have the evaluation conducted by the agency best equipped to evaluate the new art. A calendar window also provides the opportunity to clarify what risks may exist as to an issued patent.

It bears emphasizing that an opposition practice in general provides a "third way" with a chance to gain clarity, identify risks and improve the quality of patents. In litigation, while a higher burden exists to invalidate a patent – i.e. clear and convincing

evidence -- there is no opportunity for a patent holder to amend claims around the prior art. The issue is up or down, valid or invalid.

With an opposition practice, generally, the patent holder may emerge with a valid patent, but narrowed in scope assuming the claims can be crafted around the prior art. This in our view presents a "third way." Where one, two or a few patents relate to a commercial product, "patent watching" becomes more practicable and several incentives exist for utilizing a first window to obtain clarity.

However, the more common predicament that many firms find themselves in, and which we believe presents a compelling reason for the second window, is the practical difficulty in identifying patents issuing that read *on* or *into* the complex value chains in the modern economy. For many industries, particularly service-oriented industries, it is often the case that dozens, if not hundreds, of patents, containing dozens, if not hundreds, of claims each may be relevant to and "map" to some aspect of a commercial value chain in which one particular firm has a role. Therefore, it is usually unknowable – even were there to be infinite windows - whether or not a patent is relevant.

Moreover, the specter of non-practicing entities being issued or acquiring patents further complicates the jumble of determining patent relevancy. In our view, Justice Kennedy adroitly put his finger on this issue in his *eBay* concurrence.

> "[i]n many cases now arising . . . the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases. An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees."

License fees are often obtained in enforcement actions where the patent holder has a divergent view and theory as how its patent maps into the alleged infringer's value chain. This practice will increase if only a calendar window exists because gaming of the system will occur as such entities try to evade the first window. In other words, it will be easier to hide broader more ubiquitous patent claims of dubious quality in plain view.

Finally, we believe a second window will promote rather than harm patent quality. Important art will be injected into the patent system in a meaningful way, based in part on a patent holder's view of how it applies in commerce rather than third-party fears. Patent quality is improved overall when procedures allow for a meaningful opportunity to weed out invalid patents.

2. At the hearing, you testified that the second window is the "first and only opportunity" for the financial services industry to ferret out invalid patents. However, S.1145 would allow for the publication of all patent applications at 18 months. I understand that the USPTO has a system that already gives third parties the ability to follow the prosecution of published applications at the USPTO. Given the pendency period of patent

applications in the USPTO, can you explain why you believe the second window is the "first and only" opportunity for you to ferret out invalid patents? Why couldn't you monitor them from publication until allowance? In addition, wouldn't the changes in S.1145 to estoppel and inter partes reexamination also provide a practical opportunity for financial firms to find invalid patents before being forced into litigation?

RESPONSE:

The problem arises in the financial industry because these patents often issue with numerous, broad system and method claims, as stated in my above response. In these cases, the patent owner could easily wait, and indeed would have an incentive to game the system, until the end of the first window to put a company on notice. Without a second window, the accused infringer will have no real ability to challenge the asserted patent claims and no practicable ability to challenge the validity of the patent under current re-examination rules. Additionally, the current state of the willfulness doctrine in patent law creates a substantial deterrent to monitoring.

Also, as referenced above, it is substantially more complicated and expensive to interpret the often numerous claims and attempt to apply them to a wide array of services and systems. Monitoring prosecution of patent applications also does not provide the ability to challenge the patent application or issuance of a patent, nor does it in any way clarify the uncertainty of the scope of the claims and whether a patentee would choose to enforce its rights. The changes to the inter-partes reexamination process have so far not been enough to resolve problems with patent quality and a new system, as is set forth in the bill, is needed.

3. How do you respond to concerns that the reforms contained in S.1145 will only prolong the ability of patents to be attacked outside of the court process and will actually be a disincentive for investment in new products?

RESPONSE:

We believe that the patent system best serves as an incentive to investment when the system is balanced between the rights of patent holders and alleged infringers. The present system creates often undecipherable and significant litigation risks and costs concerning patent scope and validity. Providing meaningful processes to determine scope and validity, as are set forth in the bill, should help mitigate these risks and allow companies to further invest in new products and services to the benefit of their bottom line and ultimately the economy.

We believe the unbalances in the current system have inexorably lead to the practice of predatory patent assertions and litigation abuse particularly by firms that do nothing more than hold the paper. In our view, reform is not only necessary but the time to enact reform has come. A balanced patent system will not interfere with incentives for investments but rather restore them.

4. I've attached a June 7, 2007 letter to Congress from Chief Judge Paul Michel, of the U.S. Court of Appeals for the Federal Circuit, in which he states that "plucking limited language out of the long list of factors summarized in the Georgia Pacific case that may be relevant in various cases is unsatisfactory, particularly when cast as a rigid requirement imposed on the court, and required in every case, rather than an assignment of a burden of proof under a clear standard of proof imposed on the party that should bear that particular burden, and that would only arise in a rare case." He also states that the proposed legislation would require "a new kind of macroeconomic analysis that would be extremely costly and time consuming," and would result in severe court delays as well as increased attorneys' fees and costs. Do you agree or disagree with Chief Judge Michel's statement? Why?

RESPONSE:

We believe that apportionment of damages is critical in the overall patent infringement analysis and in fact should help the patent system self-correct.

For example, in more mature, research and development-intensive industries, such as manufacturing, patents have long been part of the landscape and the scope patent claims (and court-awarded damages, parties' settlements and licensing rates) bear a tighter correlation to economic value. However, in less mature and especially more technology-intensive industries, which today include some of America's most innovative firms, patents instead tend to overhang on particular aspects of complex value chains and correlation of economic value to the scope of patent claims is lost where patents can be enforced and damages awarded beyond their scope.

Currently, the software and hardware interoperability necessary to make computers work, to clear financial trades or to balance bank accounts demands a patent system that protects and allows the market to assign values to new inventions without providing incentives to firms that otherwise engage in predatory litigation-abuse behavior for purely economic gain. Damages apportionment will help take the "sweepstakes" factor out of the current litigation dynamic because it should provide more discernable means for parties to price-out their litigation risks concerning what a court may likely award, particularly as between commercial competitors.

As a result, with a tighter economic correlation to the patented contribution, incentives will exist for parties to settle and more precision will be fostered by the courts in compensating patent holders for their infringed rights.

Accordingly, we think the proposed legislation helpfully re-establishes the court as a gatekeeper. This function is similar to the role courts serve in evaluating expert testimony. Requiring a court to perform an apportionment analysis will ensure that the patent at issue only receives a royalty attributable to its contribution over the prior art. In our view, the fact that an apportionment analysis may be complex only reinforces the

need for, and importance of, the court system to serve this critical gate-keeping role so that damage awards are commensurate with the value of a patent.

5. In your opinion, does S. 1145 encourage innovation and investment that businesses need in order to flourish? How?

RESPONSE:

We believe that S. 1145 provides for a better, balanced patent system that will support innovation and investment for decades to come. See Response 3, above.

6. What is the impact of this bill on the American consumer? How does it help or hurt the American public?

RESPONSE:

We believe that S. 1145 strikes a better balance in the patent system between a patent owner and an alleged infringer. This new balance will inure to the benefit of the consumer. Right now, the current inefficiencies and litigation risks are priced into the system bearing little if any correlation to the advance provided by the patent holder. Indeed, it is often heard that "nuisance value" is a seven figure proposition in patent cases. Accordingly, companies have no choice but to roll-up these risks into their costs. As a result, American consumers are likely paying much of these costs. For example, where a patent owner is allowed to collect damages in the form of a royalty beyond the economic value of the patent, these costs are likely to be passed on in substantial part to the consumer.

In fact, it is telling that few, if any, meaningful ways exist to insure against patent infringement risk. The reason for this is that the insurance market does not know how to price these risks. Where such risks cannot be priced, they become inherently priced into products or services and, as a result, consumers – and indeed those in the value chains making the products - pay too much.

We think the beginnings of a better system can already be seen as a result of the Supreme Court's *eBay* decision. In the *eBay* case, the Court determined that equitable factors may be considered in determining whether to award injunctive relief. As such, where a patent holder is not irreparably harmed because money damages would otherwise make them whole, the Court can consider that as factor militating against the award of an injunction. In other words, a calibrated mechanism has now been introduced vis-à-vis a courts equitable powers which helps parties evaluate and price these risks, as between competitors and as between non-practicing entities holding patents. We think this trends in the right direction, providing clarity and more precise pricing of risks, which is good for the parties and ultimately good for the American consumer and end-users alike.

But there is further work to be done and in our view Congress has supplied the right rule set in S. 1145 to accomplish in a balanced and holistic fashion what the Supreme Court started in *eBay*.

QUESTIONS FOR THE RECORD FROM SENATOR SPECTER, RANKING MEMBER SENATE JUDICIARY COMMITTEE

"PATENT REFORM: THE FUTURE OF AMERICAN INNOVATION" JUNE 6, 2007

MR. JOHN A. SQUIRES, CHIEF INTELLECTUAL PROPERTY COUNSEL, GOLDMAN, SACHS & CO.:

1. You state in your testimony that, according to a study by the Harvard Business School, the financial services industry is vulnerable to nuisance claims. Do you think then that the current "significant economic harm" trigger for filing a cancellation petition could lead to the filing of abusive petitions against the financial services industry by parties that have no real economic stake with regard to the validity of a patent?

RESPONSE:

The nuisance claims referred to in Professor Lerner's study, entitled Trolls on State Street? The Litigation of Financial Patents, 1976 – 2005, involves claims by patent holders against alleged infringers, and the suits tend to name financial service industry firms as defendants. In his study, Professor Lerner seeks to document the extent to which financial patents are being litigated and by whom. Among his key findings were:

- Financial patents are being litigated at a rate 27 times greater than that of patents as a whole.
- Inconsistent with more general patterns, the finance patents being litigated are disproportionately to individuals.
- Third parties – typically patent holding companies – are most frequently the plaintiffs, not the awardees of the patents.

We provide a copy for the record.

As such, we think it is unlikely that patent holding companies will abuse a post-grant review procedure to challenge the grant of patent rights to financial service firms. It is also unlikely that financial service firms will abuse the process as well and the "significant economic harm" trigger is a good procedural gate to all quality challenges in a post-grant patent review process, so that financial services industry firms will be able to deter, or more cost-effectively deal with these nuisance claims when they are put at risk. This trigger will help ensure that parties will act as rational economic actors. Therefore, we believe that it is unlikely that alleged infringers will file abusive petitions.

2. In a letter to Chairman Leahy and me, the Department of Commerce, which oversees the PTO, stated that a surge in complex post-grant proceedings could strain PTO resources. Could this strain shift attention

away from pre-grant procedures and potentially limit the agency's ability to improve patent quality?

RESPONSE:

To install an effective post-grant process may require increasing the PTO's resources but, in our view, will not divert attention from the pre-grant examination. Within the last several years, the PTO has successfully reinvigorated its re-examination process and we believe it can similarly provide a successful post-grant review process.

If additional resources are not made available, however, the PTO's resources may be strained. Our experience has been that such strains result in longer time periods to receive a first review rather than a decrease in patent quality.

In the long run the post-grant process should help improve quality during pre-grant examination because the post-grant process will allow a fresh injection of prior art which under the current system is unavailable and not interposed at least until litigation. The post-grant process also allows industries to gather such art and put it into the system in a focused and directed manner which is far beyond what the agency could do on its own. As such, over time, the pre-grant search is more likely to be fruitful and the pre-grant examination more efficient.

3. If the standard of proof in the second window is preponderance of evidence with no presumption of validity, doesn't this create an inconsistency with the standard of proof and presumptions that would apply in district court in an infringement action? Should Congress be concerned that S.1145 permits parallel proceedings with inconsistent standards?

RESPONSE:

The presumption of validity is based largely on the assumption of administrative-agency expertise and competence in a final disposition. That assumption is not warranted, and should not be afforded a procedural presumption, in a process where the agency is reviewing prior art or other evidence that was not previously before it.

4. Mr. Bernstein expressed concern that the language on apportionment of damages in S.1145 is a dramatic departure from market based principles that currently govern damages calculations and that this may result in artificially low damages awards. Do you believe the apportionment language may encourage patent users to "roll the dice" and risk litigation rather than paying a market negotiated licensing fee.

RESPONSE:

We do not believe that the proposed legislation represents a departure from market principles. To the contrary, we think the bill will finally permit market principles to work so that the economic contribution of a new invention can be better calculated and

calibrated commensurate with the actual value of the granted rights, particularly in industries with complex product value chains. Currently, parties have difficulty pricing their risk due to the lack of a meaningful apportionment rule. As a result, plaintiffs have little incentive to consider settling claims where the prevailing view is that they will be able to successfully argue at trial entitlement to a larger portion of the product value, i.e., beyond aspects covered by the patent. This is also a reason why "nuisance values" are often heard to be in the two to three million dollar or more range and why a "lottery ticket" mentality has seeped into the patent enforcement calculus.

Here, the legislation helpfully requires the court to act as a gatekeeper to ensure that a patent's economic value is commensurate with its contribution over the prior art. Once cases are decided on apportionment bases, there will be more predictability in damages awards and more incentive overall for licensing and settlement.

5. In *KSR v. Teleflex,* the Supreme Court states that, "inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, was already known." Taking into consideration this statement, why should an apportionment of damages analysis be a threshold determination for the court? Wouldn't clearly stating that the court should engage in such an analysis when appropriate, such as when the patent in question is only a small part of the larger product, adequately address the concerns that you have?

RESPONSE:

We believe that an apportionment of damages should be a threshold determination in the damages analysis for patent infringement. We acknowledge the Supreme Court's statements in *KSR v. Teleflex* regarding the concepts of invention because it is the "discovery" that is patentable, not that which is already known. Accordingly, under the bill, the court would serve as a gatekeeper and perform this important threshold determination to ensure that damages are attributable to the value of a patent as measured by the scope of the rights granted. This is important to the public-at-large as well since the rights are dedicated to the public at the patent's expiration.

Current law is unevenly applied so that apportionment may or may not be a factor when conducting a damages analysis. The language in the proposed legislation affirmatively requires the court to determine that a reasonable royalty is limited to the economic value attributable to the patent's specific contribution over the prior art. Where that value is attributable to a new combination of already known elements, the proposed legislation recognizes that value and permits a commensurate royalty based on the scope of rights awarded.

6. You support the interlocutory appeal provision in S.1145. How do you respond to Judge Michel's letter, and the testimony of Mr. Bernstein, expressing concern that interlocutory appeals will substantially increase the costs and delays in patent litigation? Specifically, Judge Michel says

> the filings in the Federal Circuit may double, which would double the time necessary to resolve an appeal from one to two years, and also double delays in district courts, which are already about two to three years.

RESPONSE:

Because the issue of claim construction is often case dispositive, we do think there will be an increase in the number of appeals if an interlocutory procedure is introduced. What is difficult to predict, however, is what volume of appeals to expect, what may be done to manage and moderate whatever volume actually arises, and the impact on litigants' conduct after the appeal.

As to the volume, the 100 percent prediction referred to in Judge Michel's letter is based upon statistical work and assumptions by Professor Kesan. Kesan's model may not be predictive or indicative of the volume of appeals because the analysis assumes a static model and that other behavior will not change as a result of the certainty to be afforded by the appeal with respect to claim construction. As an example, a proper claim construction at the earlier stages of litigation will certainly control later litigation strategies and may serve as a basis for early settlement rather than costly and time-consuming litigation.

Further, Professor Kesan's statistics may not be a good predictor because his model assumes that every possible Markman hearing or Summary Judgment motion will result in a new appeal. Yet Professor Kesan's own scholarship shows that many summary judgment motions are on validity issues (for example, as in *KSR*) and, of course, denial of summary judgment of invalidity would not generate a new appeal under the legislation. In addition, currently a substantial majority of patent cases settle, and the model does not provide a means to account for the cases that would continue to settle after the District Court Markman ruling.

Also, the model does not factor in the number of appeals that the Court will no longer have to hear at the end of full trials because the key issue -- claim construction -- has already been resolved at the appellate level. Without the above factored into the model, we came to a lower estimate as set forth in the written testimony.

In addition, we would not expect the new appeals from Markman hearings to require the same quantum of judicial resources required for appeals from infringement suits which involve numerous issues which have been litigated simultaneously, such as validity, damages, inequitable conduct, willfulness, etc. Markman appeals will instead involve only the single issue of claim construction.

Whatever the increase, we firmly believe that claim construction is essential to case resolution and that an interlocutory process will serve to effectuate the principles first laid out by the Supreme Court unanimously in its Markman decision.

> Finally, we see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court. As we noted in General Elec..., "[t]he limits of a patent must

> be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public." Otherwise, a "zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field,"... and "[t]he public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limit these rights." It was just for the sake of such desirable uniformity that Congress created the Court of Appeals for the Federal Circuit as an exclusive appellate courts for patent cases, observing that increased uniformity would "strengthen the United States patent system in such a way as to foster technological growth and industrial innovation."

As the Supreme Court articulately describes, the Federal Circuit is uniquely positioned to ensure uniformity in claim construction and an interlocutory appeal process we believe will allow resolution of that question early in the process and, in the long run, conserve both appellate, trial court and ultimately litigant's resources.

We also believe that legal doctrines exist that can be deployed to assist the Federal Circuit in promoting uniformity and manage the flow of interlocutory matters that may come before it.

Indeed, legal scholarship by Professors Duffy and Merges in their casebook, and Professor Duffy in a law review article (cited below), demonstrates that the doctrine of primary jurisdiction, as applied in other areas of the law, could be effectively applied in an interlocutory appeal context and increase the discretion of the lower courts and deference afford issues that arise on appeal.

Primary jurisdiction would permit the district court to look to the USPTO for claim construction as an expert agency to discern what the claims at issue mean. The Supreme Court's most recent opinion on primary jurisdiction sets forth a flexible approach that permits, but does not require, district courts to "refer" matters to an agency for an administrative opinion. The technique could be an optional route that gets used more, or less, depending on (i) the experience of the trial judge; and (ii) the backlog of cases at the Federal Circuit.

Professors Duffy and Merges draw an analogy to the rate tariff area, which has striking similarity to patent claims. According to their casebook, Merges and Duffy, Patent Law and Policy 1176-77 (2002):

> Primary Jurisdiction. As suggested by the prior note, one close analogy to the patent claim is a rate tariff — a creature of traditional administrative price regulation. Like claims, rate tariffs are drafted by private parties — specifically, by producers of rate-regulated goods and services. The tariffs, which contain rates that the producers intend to charge consumers, are filed with the agency, which is given a power to accept or reject the schedule. If accepted, the rates are made public and

become binding on all parties. Suits to enforce rate tariffs, which can be brought in ordinary trial courts, present problems similar to those in patent infringement litigation: Like claims, tariffs tend to be highly technical, and trial courts do not have expertise in interpreting them. Moreover, as with claims, the Supreme Court views rate tariffs as needing a uniform national interpretation. See Texas & Pacific Ry. Co. v. American Tie & Timber Co., 234 U.S. 138, 146-47 (1914).

To obtain nationally uniform tariff interpretations, and obtain them early in enforcement litigation, the Supreme Court has invented what is known as the "primary jurisdiction doctrine," which allows (and, in some cases, requires) trial courts to stay litigation while the parties seek an administrative opinion on the meaning of tariffs. See, e.g., United States v. Western Pac. R.R. Co., 352 U.S. 59 (1956). For an argument that the doctrine can be applied in patent infringement litigation, see John F. Duffy, On Improving the Legal Process of Claim Interpretation: Administrative Possibilities, 2 Wash. U. J. L. & Pol'y 109 (2000). As noted in that article, the Supreme Court has identified the PTO as the institution having "primacy" in ensuring the proper coverage of claims, Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17, 33 (1997), so seeking a PTO view on the correct interpretation of claims would seem to fit squarely within the primary jurisdiction doctrine. See Reiter v. Cooper, 507 U.S. 258, 268 (1993) (describing primary jurisdiction as applicable to lawsuits "properly cognizable in court that contain some issue within the special competence of an administrative agency").

7. Do you think that questions of claims construction present mixed questions of law and fact?

RESPONSE:

We believe that claim construction is largely and appropriately an issue of law for the court, which is what was held by the Supreme Court in *Markman v. Westview Instruments, Inc.* As a practical matter, were the answer otherwise, we think it would wreak havoc with appellate review and destroy the rationale for uniformity that the Supreme Court wisely observed. We provide the Harvard Case Note below to demonstrate the severe difficulties in reviewing mixed questions of law and fact: (110 Harv. L. Rev. 317 (1996)):

2. Mixed Questions of Law and Fact. -- Although appellate courts generally review factual findings deferentially and legal conclusions independently, 1 there is often disagreement as to the proper standard of review for "mixed questions of fact and law," 2 which fall between [*318] these two poles. 3 For example, in Title VII hostile environment sexual harassment cases, 4 the circuit courts have split over the appropriate standard of review 5 for a trial court's resolution of whether the offensive conduct was "sufficiently severe or

pervasive enough" to create "an environment that a reasonable person would find hostile or abusive.

Although the Supreme Court has not specified the standard of review for these claims, last Term it selected the standard that courts should apply to two other reasonable-person judgments, resolving splits among the circuits. 7 In Ornelas v.United States, 8 the Court held that whether a police officer had reasonable suspicion to make a Terry stop or probable cause to conduct a warrantless search (whether a reasonable person in the officer's position would believe that crime was afoot or that contraband or evidence of a crime was present 9) was a mixed question to be reviewed de novo on direct appeal. 10 In Thompson v. Keohane, 11 the Court held that whether a suspect was in custody for Miranda purposes 12 (whether a reasonable person in the suspect's position would believe that he was free to leave 13) was a [*319] mixed question to be reviewed de novo by a habeas court. 14 Although the Supreme Court has warned that determining the proper standard of review by analogizing from one case to another is "uncommonly difficult," 15 the three-factor framework applied by the Court to resolve the standard of review issue in both Ornelas and Thompson can profitably be applied to hostile environment cases. This application demonstrates that appellate courts should review hostile environment sexual harassment claims independently, thereby expounding the law without impinging upon the trial courts' role as primary fact-finder."

8. You have expressed concerns about language in S.1145 that would permit a finding of willful infringement if there was "intentional copying." How could the bill ensure that mere notice of a patent does not serve as the basis for a finding of intentional copying?

RESPONSE:

We believe that the "intentional copying" language is appropriate, particularly as it relates to a good-faith defense. This provision restores balance to the patent law and aligns it with other areas of law that permit enhanced or punitive damages only upon a showing of reprehensible conduct. We do believe that the proposed legislation should be modified slightly to provide that notice alone is not sufficient to prove copying.

9. The National Academy of Science, the ABA, and the American Intellectual Law Association all recommend repeal of the "best mode" requirement. Since this is the most subjective element in any validity assessment should Congress include such repeal in any patent reform bill?

RESPONSE:

We believe that the "best mode" requirement of the patent statute is appropriate, provides important disclosure to the public and should not be repealed.

10. The National Academy of Sciences recommends amending the defense of unenforceability. There was language on this point in both the House and Senate patent reform bills considered during the 109th Congress but not this Congress. Do you believe that Congress should address the question of unenforceability?

RESPONSE:

We believe that the defense of unenforceability based on inequitable conduct is a suitable defense to claims of patent infringement and should not be amended.

U.S. SENATE COMMITTEE ON THE JUDICIARY
JUNE 6, 2007 HEARING ON PATENT REFORM
SEN. KYL'S QUESTIONS FOR THE RECORD
(EACH QUESTION IS FOR EACH WITNESS EXCEPT WHERE OTHERWISE SPECIFIED)

Question 1. One of the most controversial provisions of S. 1145 is its rearticulation of the standard for computing reasonable-royalty damages. Statements made by proponents and opponents of this provision suggest that the two sides do not disagree so much over the relevant principles as they do over the means of codifying those principles. It appears to me that both sides generally agree that reasonable-royalty damages should be calculated as follows:

> *First*, if the patented invention is the principal basis for consumer demand for the product, then the patentee should be awarded damages based on the entire market value of the product or process. Under no other circumstances should damages be based on the entire market value of the product or process.
>
> *Second*, if the entire-market-value test is not applicable, and market-based measures of a reasonable royalty – such as negotiated royalties paid for the same invention by third parties, or prices paid for non-infringing substitutes – are available, then those measure should be used to determine a reasonable royalty. This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.
>
> *Third*, if neither the entire-market-value nor the market-based measures are applicable, then apportionment should be used to calculate damages.[1] This measure should be adjusted based on the applicability of other *Georgia-Pacific* factors, such as the patentee's history of exclusive licensing.

Do you agree or disagree with this articulation of the principles that should govern the calculation of patent reasonable-royalty damages? If you disagree, please provide a specific explanation, or please suggest any other way in which you believe that this expression of the principles governing the award of reasonable-royalty damages should be modified.

Answer to Question 1:

The various plays on words advanced by opposing sides in this debate reveal substantial disagreement between the proponents of the language in the bill and the opponents of this language. Note that one side tries to shift focus from the language in the bill—"economic value

1 Apportionment should be the first, not the third, stop in any damages analysis. If a machine has both patented and unpatented elements, the court must first figure out how much of the machine's value is due to the patented features before deciding whether the entire market value rule allows for an exception where damages can be based on the entire value of the machine.

properly attributable to the patent's specific contribution over the prior art"—to language with a completely different meaning—"patented invention." In what looks like mere semantics lies a huge abyss.

First, our view of the law as properly articulated in the bill is that the patentee is entitled to a reasonable royalty based on the economic value properly attributable to the patent's specific contribution over the prior art. Opponents of this view want the reasonable royalty to be based upon the economic value of whatever the patentee decided to throw into the patent claim. If the latter view prevails, then whatever patent lawyers decide to put in the patent claim would be the basis for patent damages, the patentee will continue to control the focus of any damages analysis, and everything else in the damages apportionment section of the bill is superfluous.

Recall that we are dealing with a problem of recent vintage. Only in the last 20 years or so have patentees begun to claim a minor advance in the context in which it appears; e.g., "I claim an automobile having an improved windshield wiper assembly capable of intermittent operation . . ." In that example, the "patented invention" is a car with an improved windshield wiper.[2] But, the patent's specific contribution over the prior art is clearly the intermittent windshield wiper functionality alone. Under the opponents' view, the court will have to focus on the value of the patented invention—i.e., the car-with-wiper combination. Under the view that has been the Law of the Land and of SCOTUS since the 1800s, the court can only focus on the value added by the intermittent windshield wiper. *See Seymour v. McCormick*, 57 U.S. 480, 489 (1853) where the Court found "grave error to instruct a jury 'that as to the measure of damages the same rule is to govern, whether the patent covers an entire machine or an improvement on a machine.'"

Obviously, leaving patent damages to the artifices of attorneys' claiming strategy makes no sense and is bad policy.

One policy question remains, and that is who has the burden of proof with respect to the basis of consumer demand. Congress is not writing on a clean slate here. It has long been the rule that "the burden of establishing the existence and extent of damages rests with the person seeking those damages."[3]

.

Question 2. Some advocates of patent reform have stated that the Federal Circuit has inappropriately broadened the criteria for applying the entire-market-value test to include prerequisites other than whether the patented invention is the principal basis for market demand for the product. If you agree that the Federal Circuit has inappropriately broadened the criteria for applying this damages measure, please identify the cases in which it has done so.

Answer to Question 2:

The problem is not so much that the Federal Circuit has broadened the criteria for application of the

---

2 This is not a mere academic example but exactly what patent attorneys are trained to do. Julie R. Daulton, "Ten Tips for Maximizing Provisional Rights Protection", p. 10-11. (www.merchantgould.com/attachments/68.doc).

3 Bensen & White, Using Apportionment to Rein in the Georgia Pacific Factors, http://ssm.com/abstract=982897, page 20, citing 3-43 Federal Litigation Guide § 43.16. See also Garretson v. Clark, 111 U.S. 120, 121 (1884), holding that "the patentee" must proffer evidence "tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented feature. . ."

entire market value rule. Rather, as noted in the answer to Question 1, supra, the problem arose with a new phenomenon of claiming a small advance in the context in which that advance appears. Hence, while "patented invention" has historically been synonymous with that which comes within the scope of the claim, the new claiming tactics brought much more within that scope than was traditionally the case. With claim scope now coextensive with the product that is sold in the marketplace, the courts no longer had to decide whether to apply an "entire market value" assessment to ascertain how much of the product's value was attributable to patented features as opposed to unpatented features. Everything in the product was a patented feature.

Question 3. In his testimony (at page 11), Mr. Squires suggested with regard to the entire-market-value rule that the committee should "ensure the market value is based overwhelmingly on the patent's specific contribution over prior art." The bill currently states that the patent's contribution must be the "predominant" basis for consumer demand for the product. Do you believe that "predominant" is the appropriate word to employ here? Would "overwhelming" be more appropriate? Would "principal" be more appropriate? Please explain your answer.

Answer to Question 3:

Current law requires that the patented invention be more than just "a" basis for consumer demand. This is clear from both Supreme Court and Federal Circuit precedent:

> The patentee . . . must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.[4]

Similarly, the Federal Circuit has articulated the basis for the entire market value rule as applying "where the patent related feature is *the* basis for customer demand."[5] Similarly, the Federal Circuit has articulated the basis for the entire market value rule as applying "where the patent related feature is *the* basis for customer demand."[6]

In the technology sectors, it should typically be difficult for a fact finder to reach the entire market value rule. However, because of the phrasing chosen by the Federal Circuit that "the basis for customer demand" frequently makes its way into jury instructions, it is all too easy for a jury during deliberations to turn the term "the" into the term "a". As a result, we have the danger that a jury could return a damages award based on demand for the patented feature being "a" basis.[7] With the Federal Circuit's new found standard of only overturning jury verdicts that are demonstrably "monstrous," we need a more clearly articulated standard so that juries appreciate what is necessary to be entitled to the entire market value rule.

While Congress could argue at length over the choice of "predominant," "overwhelming" or "principal," the use of any of the foregoing clears up the potential jury ambiguity and adds much

4 *Garretson v. Clark*, 111 U.S. 120, 121 (1884).
5 *Imonex Servs. v. W.H. Munzprufer Dietmar Trenner GmbH*, 408 F.3d 1374, 1379 (Fed. Cir. 2005).
6 *Imonex Servs. v. W.H. Munzprufer Dietmar Trenner GmbH*, 408 F.3d 1374, 1379 (Fed. Cir. 2005).
7 Uniform Jury Instructions for Patent Cases in the United States District Court for the District of Delaware. 6.4 (http://www.ded.uscourts.gov/jury/Patent%20Jury%20Instructions.pdf)

needed clarity to the application of the entire market value rule.

Question 4. In some cases, courts appear to have applied the entire-market-value standard to measure damages, and then awarded the patentee only a small percentage of that value as the damages. Assuming that the entire-market-value test is the appropriate means of calculating damages in a particular cases, is this approach correct? For example, if the infringed invention is the basis for consumer demand for the product, is it appropriate for a court to award a percentage of the sale price of a product as the royalty, or should the court award the patentee all profits earned from the sale of the product?

Answer to Question 4:

The entire market value rule is simply a tool to decide how much to include within the damages base. If an apportionment analysis suggests that only 20% of the economic value of a product is attributable to the "patent's specific contribution over the prior art," than only 20% of the product's value should be included in the damages base. If application of the entire market value rule suggests that the patent's specific contribution over the prior art is the reason why customers buy the product, then 100% of the product's value should be included in the damages base. In either case, the "damages base" is the multiplicand against which the applicable royalty rate is multiplied. The result is the reasonable royalty awarded as damages for the infringing sale of that product. A "percentage of the sale price of a product as a royalty" is precisely what a reasonable royalty is, and an award that is some royalty rate times the sale price is entirely appropriate.

Further, it is also well settled law that generally speaking the royalty damages must leave the infringer with a profit: [8]

> GP asserts, and the court below appears to have accepted, the proposition that under the willing buyer-willing seller rule a reasonable "royalty must be fixed so as to leave the infringer, or suppositious licensee, a reasonable profit." . . . Even if a small degree of profit is added for collateral sales in order to justify the court's subsequent finding that "GP's reasonably expected rate of profit on the sale of striated fir plywood would have been $50.00 per thousand square feet," id. at 1141, n2 the royalty imposed still gobbles up all of GP's expected profit. We also note that the trial court's $800,000 award more than encompasses the $685,837 which the Master found to be GP's actual profits. . . . Thus, although we affirm the other findings, we feel that despite the trial court's professed intention to do so, it did not allow GP a reasonable profit after paying the suppositious royalty.[9]

What that reasonable royalty should be will depend on a host of factors. Sometimes it is a small percentage of the total value of the product. However, as Mark Lemley of Stanford Law School, who has testified before this committee and Professor Carl Shapiro of Haas School of Business, have

8 Under the current statute, a patentee can never recover the profits earned by the defendant. Under section 284, patentee can only recover either its profits as in the case of the typical pharmaceutical patent lawsuit, orif it cannot show that it lost profits, then its damages are a reasonable royalty. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 480 (1964).

9 *Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295, 299 (2d. Cir. 1971).

found that reasonable royalties in patent cases tend to be disproportionately high; i.e., they are not reasonable. Instead, Professors Lemley and Shapiro have found that jury reasonable royalty assessments tend to be particularly problematic for weak patents on minor features of complex products.[10]

Question 5. If apportionment is used to calculate damages, should the infringer bear the burden of proving that his and others' contributions added value to the product and should be deducted from damages? Please explain your answer.

Answer to Question 5:

As in other areas of the law, it is well settled patent law that the burden of establishing an entitlement to damages, whether for lost profits or for a reasonable royalty, always rests on the patentee. We see no reason for adopting a different rule in patent cases than in other civil cases. As noted in the answer to Question 3, above, the Supreme Court has held that the burden on proving damages belongs on the patentee as the claimant. In analogous business torts such as antitrust, the antitrust claimant bears the burden of proving what damages arise from the defendants' unlawful conduct and what losses were attributable to other factors.[11]

Thus, we believe that no one has made a case regarding why these burdens should be shifted. Patentees already get the benefit of several special proof burdens such as the burden of proof on invalidity. We do not believe that patentees need any further favoritism in the law.

Question 6. The bill's articulation of the apportionment test as based on "the patent's specific contribution over the prior art" appears to require the trier of fact to determine what, if anything, the invention added to prior art. Given that, if the trier of fact is measuring damages, it has already decided that the patent is valid and infringed – *i.e.*, that it did add to prior art – doesn't the bill's way of articulating the apportionment test require the trier of fact to revisit questions that it necessarily already decided when it found that the patent is infringed? If so, is this appropriate?

Answer to Question 6:

We do not see any duplication or efficiency defect in the apportionment language in the bill. The issues underlying infringement, validity and damages are closely related, and the court will lose nothing by making reference to earlier findings in order to make a subsequent finding. For example, infringement lies if the accused product incorporates every element of the claim; a patent claim is invalid under Section 102 if a single reference discloses every element of the claim; and a claim is invalid under Section 103 if the "subject matter as a whole" would have been obvious to the person of ordinary skill in the art. Coming to conclusions on infringement and validity requires a detailed analysis of the accused product and of the asserted prior art. All of that will inform any assessment of precisely what it is in the patent that amounts to an improvement over the prior art determination in connection with a damages analysis.

---

10 Mark A. Lemley and Carl Shapiro, Patent Holdup and Royalty Stacking, Stanford Law and Economics Olin Working Paper, No. 324 (2007) to be published in the 2007 University of Texas Law Review (http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1066&context=iber/cpc).

11 *See Blue Cross & Blue Shield United v. Marshfield Clinic*, 152 F.3d 588, 592-93 (7th Cir. 1998).

Patentees should be rewarded for what they invented and not what their attorney decided to throw in the claim. Only through apportionment is that result assured. Congress should leave to the district court's discretion the decision of whether to "re-open" the record to accept additional evidence bearing on the proper apportionment.

Question 7. Does the bill's "specific contribution over prior art" articulation of the apportionment test depart from current law? (If so, please cite cases that articulate the test differently.)

Answer to Question 7:

The language in the bill captures beautifully, albeit using slightly different words, pre-Federal Circuit law on apportionment. See Garretson v. Clark, 111 U.S. 120 (1884)("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented feature, and such evidence must be reliable and tangible, and not conjectural or speculative); Westinghouse Elec. & Mfr. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604 (1912)(holding that improvements added by the defendant contributed to the overall value of the accused product, and that "the burden of apportionment was then logically on the plaintiff, since it was only entitled to recover such part of the commingled profits as was attributable to the use of its invention."); Dowagiac Mfg Co. v. Minnesota Moline Plow Co., 235 U.S. 641 (1915)("the evidence, although showing that the invention was meritorious and materially contributed to the value of the [accused products], made it clear that their value was not entirely attributable to the invention, but was due in a substantial degree to the unpatented parts or features. . ."); Whitney v. Mowry, 29 F. Cas. 1102 (S.D. Ohio 1868)("[I]t would seem to be a pretty hard measure of justice in a court of equity, to say that the entire profits made on that large article should go into the pockets of the inventor and patentee of this small thing. . .").

For discussion of these and other apportionment cases, see article by Bensen and White, cited in footnote 3, supra.

(For all witnesses except Ms. Biberstein.)

Question 8. In her testimony (page 9), Ms. Biberstein criticizes the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. She states:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

Do you agree with Ms. Biberstein that deducting all prior art would deny appropriate compensation to the inventor of a novel-combination invention? Please explain your answer.

Answer to Question 8:

We disagree with Ms. Biberstein. Of course, virtually all inventions are combinations of old elements. However, obvious combinations are not entitled to a patent. Non-obvious combinations are entitled to a patent. Determining precisely what is was that rendered the combination non-obvious is well within the purview of a court, and the proportionate value of that combination will remain a significant piece of the overall value.

Consider the example that another of the opponents of apportionment used in his testimony—the well known Post-It brand note paper. Post-It notes have two components: (1) scraps of paper; and (2) a glue that enables a user to peel apart the glued together scraps of paper from the pad without damaging the paper. Ordinarily, one would pay no more than a few pennies for either the scraps of paper or for the glue. Yet, a pad of Post—It notes costs over a dollar. The reason is the combination of the glue and paper has a value that is worth much more than the value of the components alone. Obviously, 3M invented neither the glue nor the paper. Yet the combination, which presumably was a patentable contribution over the prior art of the paper and the glue separately is quite valuable. Thus, in this example, if one were to apply the apportian language of the bill, the result would be an award to the patentee of close to one hundred percent of the value of the product.[12]

(For Ms. Biberstein only.)

8. In your testimony (page 9), you criticized the bill's articulation of the apportionment test on the basis that, by deducting from a product all elements that constitute prior art, the new standard would deny compensation to an inventor who configured prior art in a useful, novel, and nonobvious way. You stated:

> In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product - two facts that are particularly applicable to biotech patents.

If a combination truly is novel, nonobvious, and useful, wouldn't the whole be worth more than the sum of its parts? In other words, if the combination of prior art really did add value to a product beyond that which already existed in the prior-art elements when used separately, wouldn't the value added by the combination of elements (the added worth of the whole) remain once that prior art (the sum of the parts) had been deducted?

---

12 Of course, in actuality in this example under the compromise language in S1145 on the entire market value rule, one would not apportion because the predominant value of the Post-It note comes from the patentee's inventive contribution.

Question 9. If you believe that the bill's "specific contribution over prior art" articulation of the apportionment test is inappropriate, please suggest alternative ways in which you believe that the test should be articulated.

Answer to Question 9:

We believe the bill's articulation of the apportionment test is exactly right. Without apportionment, (other than where the entire market value rule applies), failure to apportion gives the patentee a windfall for things the patentee never invented as a result of what his attorney decided to throw into the claims.

Question 10. S. 1145 also requires that a patented invention's "specific contribution over prior art" be the basis for consumer demand before the entire-market-value test may be used to calculate damages. Do you believe that the use of the language "specific contribution over prior art" is appropriate to identify that part of the invention that generates consumer demand when applying the entire-market-value test? If not, please suggest other language that you believe is appropriate.

Answer to Question 10:

Requiring focus on the "specific contribution over the prior art" is the right way to ascertain the basis of consumer demand in an entire market value analysis. As discussed above, patentees have only recently begun to claim their inventions using language to capture the context in which the invention appears. That practice represents a departure from the older tradition of defining in the claim the specific improvement over the prior art that justifies the grant of a patent, and characterizing the claim as the "patented invention." The term "patented invention" was understood for almost 200 years to refer to the advance over the prior art that entitled an applicant to a patent on the advance. When that term came to include not only the particular advance justifying a patent, but also everything else the patent attorney decided to throw into the claim, another term became necessary to capture the same meaning. "Specific contribution over the prior art" captures that meaning and keeps the focus of both an apportionment analysis and an entire market value analysis where it belongs.

Question 11. Please identify any Federal Circuit decisions (other than those identified in your answer to question 2) that you believe adopt an incorrect legal standard for calculating patent damages.

Question 12. At page 7 of his May 18, 2007 letter commenting on S.1145, the General Counsel of the U.S. Department of Commerce endorsed some but not all of the bill's limits on the award of treble damages for willful infringement. In particular, he excluded from his endorsement proposed section 284(b)(3)(A) and (B), which create a defense to willfulness that the infringer had an "informed good faith belief" that the patent was invalid or was not being infringed. If you support this provision, please explain why you believe that this provision is appropriate. Do you believe that this provision goes beyond current law? If not – or if you believe that it only adds to a defense that exists under current law – please cite any judicial decisions that articulate this defense in current law. Should the provision also require that the good-faith belief be a reasonable one? Are there any other

limits that you believe should be placed on this defense?[13]

Answer to Question 12:

A conclusion that a defendant "willfully infringed" a patent can only be Constitutionally justified if the evidence shows that the defendant was more than merely negligent as regards the existence of a patent, and her infringement of its claims. Rather, the defendant must have acted reprehensibly.[14] ANY evidence tending to rebut reprehensible conduct should be admissible, and, if proven, should be a complete defense to the charge of willfulness. This provision maintains long established defenses against charges of willfulness. Knorr-Bremse lays out in some detail the defense and controlling precedent.

The language of the bill requires an "informed" good faith belief. "Informed" would appear to impose an objective criteria to the same extent as the word "reasonable."

Question 13. The Commerce Department GC's letter also excluded from its endorsement proposed section 284(b)(4), which requires that willfulness be plead only after the patent has been found to be valid and infringed, and which requires the court to make the finding of wilfulness. Do you support, oppose, or have no objection to this provision? If you support or oppose it, please explain why.

Answer to Question 13:

We support this provision. It has become far too easy to allege willfulness in ordinary infringement cases, and the time and expense of dealing with willfulness is not inconsequential. It makes much sense to postpone the issue until after the defendant has been found liable in infringement. This is the only effective way to let an accused infringer rely on its opinion of counsel but also have a fair litigation with the patentee. Even the opponents to S.1145 agree that these changes should happen.

Question 14. It appears that the Federal Circuit's recent *Knorr-Bremse* decision precludes a trier of fact from drawing an adverse inference with regard to willfulness from the failure of an alleged infringer to obtain legal advice with regard to a patent. In light of that decision, is proposed section 284(b)(3)(C) of the bill necessary?

Answer to Question 14:

Unfortunately, the holding in *Knorr-Bremse* is limited. It only holds that an adverse inference instruction should not be given to the jury. It does not provide guidance of how to deal with a defendant who obtains an attorney opinion and elects to waive the privilege.

Further complicating the issue is the Federal Circuit's decision in *EchoStar*, which has now been interpreted to mean that when an accused infringer waives the privilege, all conversations with any counsel regarding liability are subject to discovery. Taken literally, this means that if you ask your trial counsel if you are going to win the case, that conversation can be the subject of a deposition. We believe that the proposed amendments on willfulness are the only rational way to fix the problem.

---

13 We understand that the Justice Department had inadequate time to consider the General Counsel's comments.
14 Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp., 383 F.3d 1337, 1350-51 (Dyk, J. dissenting).

Question 15. In his testimony (at page 10) with regard to proposed section 284(b)(2)(B), Mr. Squires states that:

> While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice threshold.

Do you agree that proposed 284(b)(2)(B) should be modified to ensure that it describes "blatant copying" and not "mere notice?" Should paragraph (B) specify that, in addition to requiring that the infringer had knowledge of the patent, the infringer also must be aware of a substantial risk that his product infringes the patent? Should paragraph (B) require a showing that the infringer learned of the patented art from the patent itself or from a product licensed under the patent (or should it be a defense to an "intentional copying" finding that the infringer show that he learned the patented art from other sources)?[15]

Answer to Question 15:

No modification is necessary. A finding of intentional copying cannot possibly result from mere notice or awareness of a patent. Congress should leave some room for the courts to develop the law on willfulness. The guidance that the defendant must have intentionally copied is enough.

Question 16. Is there any other element of proposed section 284(b) that you believe inappropriately limits the award of treble damages? If so, please provide a specific explanation.

Answer to Question 16:

We are willing to accept proposed section 284(b) as is.

(For Mr. Bernstein only.)

17. You stated in your testimony (page 9) that apportionment is only appropriate "if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate."

> A. Assuming that market-based measures such as established royalties are unavailable, do you believe that apportionment should not be used unless the patented invention is only an insignificant and separable part of the overall product?

15

B. There presumably are a wide range of patented inventions that, while constituting more than an insignificant and separable part of the infringer's product, also do not constitute the principal basis for consumer demand for the product. Again assuming that market-based measures are unavailable, what measures do you believe should be employed to gauge royalties for inventions that fall within this range?

(For Mr. Bernstein only.)

18. You state in your testimony (page 12) that:

> A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention is novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention*, not merely a parsing of claim elements, that reflects the patent's contribution over the prior art.

What is the difference between showing that an invention is "novel" and showing that it makes a "specific contribution over prior art?" Your last sentence quoted above appears to suggest that merely the invention as a whole (rather than each of its claims) must add to prior art. Is this what you mean? If so, and if merely the "invention as a whole" (rather than each of its elements) must add to prior art, why should elements of the invention that do *not* add to prior art be considered when applying either apportionment or the entire-market-value rule? To state this question differently, to the extent that a validly patented invention includes elements that do *not* constitute a specific contribution over prior art, why should the patentee be compensated for such elements in an apportionment analysis – or be allowed to use the market demand generated by such elements to advocate for application of the entire-market-value rule to gauge the value of his invention?

(For Ms. Doyle only.)

19. At pages 7-8 of your testimony, you described a situation in which a patent plaintiff sued Palm on account of an allegedly infringing component in a Palm product, rather than the supplier of the component. You described this as "gaming behavior." Do you believe that it is always inappropriate for a patent plaintiff to sue a manufacturer who purchases an allegedly infringing component and incorporates that component into its product, rather than (or in addition to) suing the supplier of the component itself? Setting aside the specific case that you described, if a manufacturer does incorporate into its product a component that infringes a valid patent, it would appear to me possible that this manufacturer paid a lower price for the component because of that infringement – and thus profited from that infringement. In such a case, should the patentee be permitted to recover for that infringement from the manufacturer that purchased and used the component?

Question 20. In his testimony, Mr. Dudas expressed concern about the PTO's ability to handle the

volume of post-grant review petitions, particularly if (as in S. 1145) such review is available for patents granted prior to the enactment of such a procedure. In order to prevent the volume of petitions from overwhelming PTO's resources, would you favor the following limits on the post-grant review procedure? (Please explain your answers):

A. A provision in the legislation that the post-grant review procedure shall not become available until the PTO certifies that it has sufficient resources to hear post-grant review petitions.

B. A provision making PTO's exercise of post-grant review discretionary, akin to the U.S. Supreme Court's certiorari review. (Perhaps to be accompanied by a requirement that the PTO decide whether to hear a post-grant review petition within a specific amount of time.)

Answer to Question 20:

Neither of the proposed limits is necessary. As to the first, there would be no better way to ensure that PTO gear up to handle post grant opposition procedures than by creating an opposition procedure that is available as of a specific time. As to the second, making post grant procedures discretionary will substantially reduce the viability of the procedure itself. If PTO ever finds petitioners are abusing the system, it could use rule making authority to sanction frivolous resort to the procedure.

Question 21. S. 1145 requires that post-grant review be completed within 12 months, with a possibility of a six-month extension. Do you believe that this deadline is realistic – that the PTO will be able to abide by it in the large majority of cases – if the procedure that is implemented is identical to that in S. 1145 as introduced in the Senate? Do you believe that this deadline (or a longer deadline) would be realistic if the post-grant review procedure were limited as described in the preceding question?

Answer to Question 21:

When the PTO focuses sufficient resources on an issue, it has been shown that they can solve the problem. For example, the PTO recently revamped the reexamination process and it is now flowing smoothly. We believe that the PTO can and should set an appropriate fee that will give it the resources to do post grant opposition on a timely basis.

Question 22. The post-grant review procedure proposed in S. 1145 does not apply a presumption of validity to patents reviewed in such a proceeding. Do you believe that this omission is appropriate or necessary? If so, why?

Answer to Question 22:

A presumption of validity is inconsistent with the rationale for creating a post grant review where the question of whether PTO properly granted a patent is under review by PTO itself. In any case, the presumption was intended to force district courts to give proper deference to decisions of a federal agency. It should be irrelevant in intra-agency matters.

Question 23. Under the post-grant review procedure proposed in S. 1145, a party challenging a patent is only estopped from raising those claims that he did raise before the PTO, not those that he could have raised.

A. Do you believe that this restriction on estoppel to claim preclusion (rather than issue preclusion) is appropriate or necessary? If so, why?

B. It appears to me that under the post-grant review procedure as proposed in the bill, a party who wishes to challenge a patent and who knows of five bases to allege invalidity could assert only two of those bases in the post-grant review procedure, saving the remaining bases to assert in federal district court. Are such tactics possible under the procedure as proposed in the bill? Should the bill be modified to preclude such tactics, or are such tactics an acceptable price to pay for the advantages of not precluding a party that exhausts post-grant review from asserting additional validity challenges in district court?

Answer to Question 23:

This restriction is critical to the success of any post-grant review. With a broader application of estoppel (e.g., to matters that could have been raised), the utility of post grant as an effective forum in which to challenge patent validity is greatly diminished. We believe the change to estoppel is necessary to make post grant review and inter partes reexamination useful. For example, sometimes prior art is well documented. Other times prior art is not well documented and will require substantial court testimony and demonstrative evidence to show why a patent is invalid. Under the "could have been" standard, it might not be possible to use the compelling, but poorly documented prior art at trial if it served as the basis of an inter partes reexamination or a post grant opposition. This will not lead to patent quality.

In addition, the "could have been" standard forces other decisions that do not contribute to patent quality. For example, early on, a potential defendant may decide a bad patent is only a minor concern and only be willing to invest in a limited prior art search for a reexamination or opposition where deeper prior art searching with the aid of litigation would have uncovered the art. It is unclear whether the current estoppel rules would preclude an infringer in litigation from later using the newly uncovered prior art. Again, these estoppel rules deter people from filing inter partes reexamination and thereby inhibit improvements of patent quality.

Question 24. Under the post-grant review procedure proposed in S. 1145, a patentee may amend its claims only once as a matter of right, and may further amend only for good cause shown. Do you believe that this limitation is appropriate or necessary? Please explain your answer. If you believe that this limit is not appropriate, please suggest an alternative proposal.

Answer to Question 24:

The whole point of post grant opposition is to provide a procedure for rapid determination of validity. If the patentee is permitted to amend her claims multiple times, this will not be a rapid procedure. Each amendment will entail a multiple month delay. Further, under current law, the

patentee could have amended its claims literally an infinite number of times during prosecution. At a certain point, there needs to be a cut-off so industry knows what is within and without the reach of the patentee's patent rights.

Question 25. If a patent challenge is pending in district court, and the alleged infringer commences post-grant review proceedings before the PTO, should the district-court action be stayed pending resolution of the post-grant review? Should such a stay be granted if requested by the patentee? Should any other restrictions be placed on such stays?

Answer to Question 25:

We believe that the decision to grant or deny a stay should be left to the sound discretion of district court judges. If the judge for example believes that the case is unlikely to go to trial before the reexamination is completed, a stay may be appropriate. Other times, for example, an inordinate delay in filing the reexamination may cause the judge to decline a stay application. We should let trial judges retain control over their calendars.

Question 26. In his testimony (at page 15), Mr. Bernstein expressed concern about the breadth of the rulemaking authority that S. 1145 would grant to the PTO. For what purposes do you believe that the PTO needs rulemaking authority? To what subject matter should the rulemaking authority granted by this bill be limited?

Answer to Question 26:

Unlike other administrative agencies, the PTO lacks general rule making authority. As a result, the PTO cannot create substantive rules that apply to patent law based on its experience. This leads to a substantial waste of administrative resources and delays applicants getting their patents issued.

Question 27. One concern expressed about the current patent-litigation environment is that a few bad actors send large numbers of letters asserting infringement or "inviting" licensing of their patents without conducting a reasonable investigation as to whether the letter-recipient's product actually infringes their patents. (*See, e.g.* Doyle testimony at pp.6-7.) Would you support a provision requiring that a district court impose an appropriate sanction at the conclusion of an infringement suit if, on the motion of the defendant, the court found that no reasonable person skilled in the art would conclude that the plaintiff's patent was infringed by the defendant's product? Should such sanctions be paid to the defendant or to the PTO – and if to the PTO, should the district court be permitted to consider assertions of invalidity made against other parties and their products by the plaintiff?

Answer to Question 27:

In essence, under Federal Rule of Civil Procedure 11 and under section 287 of Title 35, courts already have the discretion to sanction frivolous patent lawsuits. However, our experience is that these sanctions are rarely applied by courts. District courts should, in fact, be given more tools to work with to police bad conduct.

SUBMISSIONS FOR THE RECORD

Bio
BIOTECHNOLOGY
INDUSTRY ORGANIZATION

May 29, 2007

Honorable Patrick J. Leahy, Chairman
Honorable Arlen Specter, Ranking Member
Committee on the Judiciary
224 Dirksen Senate Office Building
Washington, DC 20510

Honorable John Conyers, Jr., Chairman
Honorable Lamar S. Smith, Ranking Member
Committee on the Judiciary
2138 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Leahy, Ranking Member Specter, Chairman Conyers and Ranking Member Smith:

We write to you as the agricultural members of the Biotechnology Industry Organization (BIO) to stress the importance of clear, predictable, and enforceable patent rights for agricultural innovation. We appreciate your interest in ensuring that the United States' patent system is fair and supports the progress of science in all technologies. As Congress considers patent legislation this year, we ask that you ensure that the fundamentals of patent protections that have made the United States the engine of innovation throughout the world are preserved.

BIO represents more than 1,100 biotechnology companies, academic institutions, state biotechnology centers and related organizations in all fifty United States and in 31 other nations. A significant segment of BIO's membership operates within the agricultural sector of the U.S. economy. These members actively research and develop innovative environmental products, clean and renewable biofuels, and disease, pest and drought resistant crops. Such products not only hold great promise for the future - they help conserve farmland and protect the environment today. For example, the United States today is the world leader in the development and planting of biotechnologically-improved crops. In 2006, American farmers chose to plant more than 89% of soybeans, 83% of cotton, and 61% of corn with seeds improved through biotechnology that allow for vastly improved insect and disease control and reduced pesticide applications. Biotechnologically-improved crops such as canola, melons, papaya, and others are also available to U.S. growers today.

1201 Maryland Avenue, SW • Suite 900 • Washington, DC 20024-2149 • 202.962.9200 • Fax 202.488.6301 • www.bio.org

The rapid adoption of this technology by U.S. farmers is a testament to the solutions it provides to problems on the farm. Biotechnology enables farmers to improve yields, reduce soil erosion, reduce fossil fuel consumption, and increases the amount of time farmers can dedicate to their families and to growing their businesses.

Biotechnology also contributes to increasing the health of livestock and enables the production of more nutritious meat, dairy products, and eggs. More than 100 vaccines and diagnostic tests developed through biotechnology are available to significantly reduce disease in farm animals.

All of this has been made possible through the strength and predictability of the U.S. patent system. Patents are the linchpin of the agricultural biotech industry. The development of today's innovative products and future innovation in the agricultural sector require major investment in research and development. The vast majority of companies in this sector are small, innovative businesses that do not yet have any products, and that depend on the patent system to capture the value they have created using the one thing they really have: their creativity, their platform technology, and their quick, smart ideas. Such companies depend on clear, predictable, and enforceable patent rights to attract the investment they need during the long and risk-prone path of product development. Investors, however, will not invest as much or at all when patent rights are uncertain and can easily be challenged. Due to the critical role of patents in the growth and development of agricultural biotechnology companies the Congress must carefully consider the impact of the Patent Reform Act of 2007 – S. 1145/ H.R. 1908 -- on this industry sector.

We believe that, in the biotechnology arena, the patent system has done exactly what it was intended to do: stimulate innovation, research, and development. By and large, biotechnology patents are of high quality. That is not to say that there is no room for improvement – and BIO supports reforms intended to improve patent quality. BIO and its agricultural members urge, however, that changes to the U.S. patent law be considered carefully to guard against unintended consequences. Provisions of the Patent Reform Act of 2007 that make infringement cheaper, devalue patents, or subject patents to unlimited administrative challenges go to the heart of patent rights. Such uncertainty will impact our ability to make the enormous investments necessary to develop innovative products such as new drought resistant crops, or the next alternative energy source.

In considering the Patent Reform Act of 2007, we urge you take great care to ensure that the reforms enacted serve all sectors of the U.S. economy, and do not disproportionately harm innovative agricultural businesses. At this time, we have several concerns with the proposed legislation that are outlined in the attachment to this letter. We hope to work with your respective committees to improve this legislation.

Sincerely,

Agrisoma Biosciences Inc.
Aqua Bounty Technologies
ArborGen
Arcadia Biosciences
Athenix Corp.
BASF
Ceres, Inc.
Chlorogen

Dow AgroScience
DuPont
Performance Plants Inc.
Hematech, Inc.
Mendel Biotechnology, Inc.
Monsanto Company
SemBioSys Genetics, Inc.
Syngenta
Trans Ova Genetics
ViaGen

Cc: Honorable Orrin G. Hatch

Honorable Howard L. Berman, Chairman
Honorable Howard Coble, Ranking Member
Subcommittee on Crime, the Internet and Intellectual Property

Attachment

Hearing before the
Senate Judiciary Committee
on
"Patent Reform: The Future of American Innovation"

Wednesday, June 6, 2007
Dirksen Senate Office Building Room 226
10:00 a.m.

Written Testimony of Mr. Bruce G. Bernstein
Chief Intellectual Property and Licensing Officer
InterDigital Communications Corporation
King of Prussia, PA

Chairman Leahy, members of the committee, my name is Bruce Bernstein. I am Chief Intellectual Property and Licensing Officer for InterDigital Communications Corporation and a long-time proponent of preserving and promoting American innovation. Thank you for the opportunity and honor to appear before you this morning to discuss the importance of strong patent rights to innovative and vital American companies like InterDigital. America's patent system has been critical to InterDigital's success and, more broadly, has helped shape the evolution of technologies and products used by billions of people around the world.

InterDigital is headquartered in King of Prussia, Pennsylvania, with major development facilities in Melville, New York. For over thirty years, InterDigital has been at the forefront of inventing and developing advanced wireless technologies and products that drive voice and data communications. Although we remain a relatively small company, our inventions are used in virtually every digital cellular phone, and we continue to invest heavily in ongoing research and development. As the inventor, owner and licensor of hundreds of US patents, InterDigital shares this committee's commitment to improve the quality of issued patents and reduce the cost of patent litigation. However, we and others in the technology licensing community are deeply concerned that certain provisions of the Senate patent bill (S. 1145) would significantly undermine the enforceability, predictability and value of *all* patent rights and, in the process, encourage litigation and abuse. Of particular concern are proposals to mandate apportionment of damages and create a new and duplicative post-grant opposition system. We urge the committee to remove these and other problematic provisions from the bill and to limit legislative reforms to fair, balanced and judicious measures that will preserve the strong foundation of patent rights and remedies so essential to the future of American innovation.

* * *

In my role with InterDigital, I head a small team that manages the company's intellectual property assets and our patent licensing business. I have over 15 years of experience in the intellectual property business and have developed and managed patent portfolios for a number of organizations, including universities, investment institutions, and both private

and public technology companies. Prior to joining InterDigital in 2005, I served as Vice President and Head of Patents at BTG International Inc., (BTG) where I developed and managed the company's physical sciences IP portfolio. Prior to joining BTG, I served as an associate at a number of law firms here in Washington, D.C. including Morgan Lewis & Bockius, LLP, Dickstein, Shapiro & Morin LLP and Finnegan, Henderson, Farabow, Garrett & Dunner LLP. Like many others involved in the patent and licensing businesses, I also have a background in technology; I earned my Bachelor of Science degree in Electrical Engineering from the University of Pennsylvania before earning my JD from American University.

Compared to other companies you may hear from today, InterDigital is a small company with less than 400 employees. But our size in human capital is not proportionate to our inventive capacity and global influence. The bulk of our staff is dedicated to research, development and engineering initiatives, and the majority of engineers have advanced degrees and decades of experience. Over the past three decades, our engineers have created many of the breakthrough inventions that have allowed InterDigital to make significant and ongoing investments in leading edge research and development for an increasingly competitive global market. Today, InterDigital holds over 3,000 U.S. and foreign issued patents combined. In addition, we have nearly 9,000 patent applications in process. Not surprisingly, we are passionate about a thoughtful approach to patent reform, and ever mindful that our ability to innovate and grow is directly dependent on the strength and health of America's patent system.

The wireless market offers tremendous challenges and opportunities. Today, it would be hard to imagine a world without mobile phones. Wireless technologies have changed the way we work, live, and play. By typical measures, the wireless market would be considered mature, but the reality is that the wireless industry is changing faster than ever before, with new technologies, products, applications, and services being introduced daily. As technologies, content, and devices blossom, the only limit on the opportunity for InterDigital is our engineers' imaginations.

At InterDigital, innovation is the DNA that runs through each of our employees. In the late 1960s, the company's founder recognized the enormous potential of cellular communications — quite prescient at a time when neither the Internet nor cellular phones were available. He assembled a group of engineers and incorporated in 1972. As his vision has evolved, InterDigital has remained a pioneer in advancing the wireless industry. When the rest of the world was working on existing analog technologies, we were already developing next generation digital technologies. When the rest of the world was working on existing voice technologies, we were working on advanced data technologies. While others were working on existing narrowband technologies, we were working on advanced broadband technologies. And, today, as most are grappling with the ever-growing library of current technologies -- 3G, WiMAX, or WiFi -- we are already working on solutions for seamless mobility between all standards, domestically and internationally. Our constant aim is to focus on the future of worldwide personal and business communications and to innovate for the public good.

Based on this innovation, we have built a worldwide patent licensing program with great success. Since 1992, manufacturers of some of the world's most popular brands, such as Nokia, Samsung, Sony, Ericsson, LG, NEC, Panasonic, Sharp and Research In Motion, have become our customers, and we have earned over $1 billion in patent royalty and technology licensing revenues. In recognition of our successful licensing program, InterDigital received the prestigious Licensing Achievement Award from the Licensing Executives Society in 2006. Previous recipients of this award include Genentech (2004), the U.S. Department of Energy (2003), IBM Corporation (2002), Pfizer (2000), and Stanford University (1999).

Further, in addition to licensing our in-house patent portfolio, we commercialize our inventions by offering advanced products and technologies to manufacturers of mobile devices. This cycle of innovation— from technology inventions, to patent licensing and delivering products—is repeated with multiple technologies time and again. Indeed, our engineers are working today on solutions for the next generations of wireless technologies. Our experience and inventions reach across virtually all mobile and wireless standards. Our success in increasing the pace and breadth of our innovation reflects our fundamental commitment to remain a worldwide leader in the creation of pioneering technologies. To protect our ongoing new inventions, we have employed a comprehensive program of developing and protecting our intellectual property through the worldwide filing and issuance of our patents.

In addition to our internal research and development, InterDigital has a track record of successful co-development programs with leading companies around the world. Just in the last few years alone, we have worked side-by-side with our peers at Infineon (Germany), NXP (Holland), General Dynamics (US) and SK Telekom (Korea) to solve unique problems. We also work closely with several universities on advanced research and innovation projects.

The US Patent System

Our country's founders understood the importance of innovation to America's economic prosperity and growth. Significantly, they also recognized that true innovation requires the same incentives, and merits the same rights and remedies, as other forms of property. These principles - and the foundation of our patent system - are reflected in Article 1, Section 8 of the US Constitution, which gives Congress the power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

The US patent laws, first codified in 1790, were developed in order to encourage inventors to disclose their inventions to the public in return for a period of exclusive rights to their patented inventions. The resulting public disclosure of inventions encourages inventors to share their inventions rather than hoard them in private. This sharing of ideas in turn fosters further innovation by allowing other inventors to develop improvements and next generation technologies. Our country's continued technological leadership is evidence of our patent system's success.

The exclusive rights granted to an inventor have been recognized since the inception of the US patent system as being necessary to reward innovation and encourage disclosure of inventions to the public. But such rights are not awarded without condition. Instead, an inventor is only entitled to an exclusive patent right for a limited time for those inventions which meet the statutory requirements of patentability – namely, those inventions that are useful, novel and non-obvious.

These are the fundamental principles of this nation's patent laws. As such, efforts to improve our patent laws through legislative reform should be consistent with these important precepts. InterDigital believes that despite dramatic developments in technology in recent years, the underlying and originating purpose of the US patent laws continues to this day. As such, it remains essential that our patent laws continue to reward innovation with a strong and predictable framework of rights and remedies. Furthermore, provided that an invention satisfies the stringent requirements of patentability, an inventor should be entitled to a scope of protection coextensive with the metes and bounds of his or her invention.

In practice, it is the examination process conducted by the USPTO which initially determines whether, and to what degree, patent protection should be afforded to an inventor. This process is shared between applicant and examiner and often involves a significant exchange of argument and explanation before the examiner renders his final decision on patentability. Through this dialogue, an inventor may provide arguments of patentability over "prior art" references that have been asserted by the examiner as evidence against patentability. Frequently, an applicant will recognize some similarity between the prior art reference and the inventor's claimed invention and respond with a request to amend the claims in order to appropriately define the limits of the applicant's invention.

Through this examination process, an applicant is either denied a patent or granted an exclusive right to the invention defined in the claims of the application. Usually, these patent rights are appropriately granted. Sometimes, however, they are not. Some suggest that this "error rate" has spiraled out of control. I do not agree. In fact, in 2006, the USPTO achieved its lowest error rate in 20 years - 3.5 percent, as well as a record low patent allowance rate of 54 percent. Even in cases of error, moreover, the patent is typically overbroad and not invalid in its entirety. In such situations, the solution is to reexamine or reissue the patent and adjust it to its proper scope.

Nevertheless, critics of our patent system are now advocating legislative measures that would create additional and more expansive opportunities to invalidate an issued patent (without giving the patent holder a fair means of appropriately adjusting the patent's scope), and fundamentally change our system of remedies to significantly reduce the cost of patent infringement. The premise of these so-called reforms is that the patent system is broken; the market is flooded with poor quality patents that were erroneously granted; and that patent plaintiffs are predominantly speculators who abuse the system to extract inflated settlements and judgments from large, established manufacturers.

In InterDigital's view, claims of this type are grossly exaggerated and dangerous in their potential impact on our patent system. To recklessly impugn the overall quality of America's patent portfolio is to denigrate the contribution of our most innovative companies, a growing percentage of which are licensing-based, patent-rich firms like InterDigital. And to diminish the value and enforceability of all patent rights is to destabilize the very foundation of our knowledge-based economy. With so much at stake, InterDigital urges the committee to proceed with great care and deliberation before approving measures that could fundamentally devalue American patents and weaken our global competitiveness.

With that said, much of the Senate bill is commendable, particularly those measures that are carefully tailored to improve patent quality and mitigate the subjective and costly aspects of patent litigation. InterDigital supports these goals and appreciates this committee's attention and commitment in addressing these important issues. As noted above, however, we are gravely concerned that other aspects of the bill would undermine the strength, value and enforceability of patent rights and hence increase litigation rates significantly, along with costs to patent holders and patent users alike. ***Namely, InterDigital opposes proposals to (i) mandate apportionment of damages, (ii) introduce an open-ended and duplicative post-grant opposition proceeding that would permit a challenger to invalidate an issued patent based on a reduced burden of proof and without affording the patent holder an adequate opportunity to adjust its scope, (iii) grant the USPTO expansive and unprecedented substantive rulemaking authority, and (iv) allow, as a matter of right, interlocutory appeal of claim construction decisions.*** Beyond the detrimental impact of these measures on patent rights and litigation costs, we are concerned that such proposals would further burden already strained USPTO and judicial resources.

It is important to note that InterDigital's concerns are shared by a large and growing number of innovative firms, universities and researchers within a broad range of industry sectors, including the technology field that we inhabit. Indeed, in a recent letter to House and Senate leaders, InterDigital joined with more than 100 other patent stakeholders, including universities, venture capital firms, small and large technology businesses and research parks across the country, to voice a shared concern about the potentially damaging patent reform measures. The letter was signed by representatives of the electronics, telecommunications, life sciences, computer hardware, financial services, chemical and biotechnology industries.

Despite media claims to the contrary, the IT industry is absolutely not united in its support for mandatory apportionment, post-grant opposition or other measures that would fundamentally weaken patent rights. To the contrary, tech industry support for such measures appears primarily limited to large, incumbent manufacturers that are opportunistically using the phrase patent "reform" to justify legislation that would reduce their litigation costs and liability when they infringe third party patent rights. These big tech manufacturers are well aware that the threat of meaningful damages is often the only leverage that a small patentee possesses to secure a licensing agreement with a corporate

giant; and they are equally aware that a mandatory apportionment standard would all but eliminate that leverage. Similarly, these large manufacturers view the proposed post-grant opposition system as a means of tying up, and more easily "busting" inconvenient patents, through endless administrative challenges, with little or no downside risk. In essence, these large tech manufacturing firms are seeking to unwind the very exchange implicit between the inventor and society when he or she discloses his or her invention in the first place.

In the wake of *eBay* and other recent Supreme Court decisions, the negotiating strength of patent owners has radically diminished, particularly to the detriment of smaller, less resourced firms that license their patented innovations. Mandatory apportionment, post-grant opposition and similar legislative measures would, for many such innovators, drive the final nail in the coffin.

Apportionment of Damages

InterDigital urges the committee to preserve the existing flexible, market-based principles that govern the calculation of reasonable royalties, and to remove from the bill the proposed mandatory apportionment test, which would devalue patents and increase the prevalence, uncertainty and cost of litigation.

Under the Senate bill, a court must ensure that a reasonable royalty "is applied only to that economic value properly attributable to the patent's specific contribution over the prior art," except where a patent has been shown to be "the predominant basis for market demand for an infringing product or process." Thus, in virtually every patent case involving complex systems, this mandatory apportionment of damages would be applied above all other factors that might otherwise influence the determination of a reasonable royalty, including a patentee's history of negotiated royalty rates and other licensing terms. Although intended to guard against allegedly inflated damage awards, this mandatory apportionment test would represent a dramatic departure from the market-based principles that currently govern damages calculations. Even worse, it would result in unpredictable and artificially low damages awards for the majority of patents, no matter how inherently valuable they might be.

For innovative companies like InterDigital, mandatory apportionment would encourage free-riders and even existing licensees to risk litigation rather than pay, or continue paying, a market-negotiated licensing fee. As a result, it would undermine the market-based licensing negotiations between the inventor and patent user that have driven our nation's innovation dynamic for more than 200 years. No longer will the market be the arbiter of our technology's value; instead, a paid expert and court will be. There will be very little downside to "rolling the dice" and litigating before taking a license.

When coupled with the heightened *eBay*[1] standard for injunctive relief, a mandatory apportionment test would further weaken and destabilize our system of patent rights and

[1] *eBay Inc. v. MercExchange*, 547 U.S. ___; 126 S. Ct. 1837 (2006).

jeopardize the very existence of smaller firms with an innovation and licensing based business model. Since *eBay*, courts are increasingly reluctant to award permanent injunctions to patent holders (historically, the first line of defense against infringement), unless the infringement undermines competition for the patentee's product. In cases where a patent holder licenses the right to practice its patented technology to others, but does not practice the technology itself (as is often the case with smaller inventors and universities that lack the resources and infrastructure to manufacture their innovations), courts have, since *eBay*, shown an even greater reluctance to award permanent injunctive relief. As a result, many innovative firms will be forced to permit ongoing use of their patented technologies pursuant to a court-imposed compulsory license (without the benefit of important standard non-royalty license terms such as confidentiality) and a court-dictated royalty. In the post-*eBay* world, it is thus all the more important that Congress preserve the ability of patent holders to obtain adequate damages for patent infringement, as this will be the only viable remedy in many cases.

Significantly, Congress expressly and resoundingly rejected mandatory "apportionment" in 1946 when it adopted the existing statutory standard for calculating damages, codified in Section 284 of the Patent Act. During hearings on the issue, Congress and other experts noted that apportionment was an overly complex and wholly unworkable test, resulting in excessive litigation costs, extreme delays and unfair damages awards for all parties. One patent expert described mandatory apportionment accountings as "the great evil that has grown up around the patent system." And another expert observed that many cases requiring apportionment had "run from 10 to 20 years, [...] and others I have known have gone on for 20 years. Some now are running that have been running 20 years and all the people that started in the [apportionment] accounting are dead."[2] To revert back to an apportionment standard that was universally condemned more than 60 years ago would represent a major step backwards for our patent system -- the very antithesis of patent "reform."

In lieu of a mandatory apportionment test, Congress in 1946 sought to create a damages standard that would afford courts the necessary flexibility and discretion to determine a fair and appropriate level of damages in cases where a patent has been deemed valid and infringed. Congress's aim, as reflected in the 1946 hearings, was also to ensure that damages awards were sufficient to compensate the patentee for past injury and to deter others from committing similar acts of infringement. With these time-honored and market-based principles in mind, Section 284 of the Patent Act provides that "Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." Under this provision, a "reasonable royalty" -- i.e., the amount that the patentee would have obtained from licensing its patent -- is the *minimum* amount of damages payable to the patentee. Any lesser amount of damages would reward and encourage

[2] Vincent P. Tassinari, *Compiled Legislative History of 35 U.S.C. §284: The Patent Compensation Statute*, 31 West. L.A. L. Rev. 45 (2000).

widespread continued infringement, increase costly litigation and ultimately diminish the value of the patent.

In some cases, a patent owner may have licensed the infringed patent to others, thereby effectively setting an "established royalty" as the minimum baseline for damages awarded to the patent holder. However, in cases where there is no established royalty, courts have historically applied a wide variety of factors to determine the royalty the parties would have agreed to in a hypothetical negotiation. In the seminal *Georgia-Pacific* case[3], the court identified 15 factors that courts had historically deemed relevant in determining a reasonable royalty, the first and most important being a history of "licensing proving or tending to prove an established royalty."

Under *Georgia-Pacific*, once a patent has been deemed valid and infringed, the courts are provided the flexibility to consider the relevant market factors that would be at issue during a negotiation to arrive at a reasonable royalty for use of the *invention.* Under this established market-based approach to calculating an equitable award of damages, the court is provided the discretion to determine which factors should be considered for a particular patent and what relative weight should be given each factor. Indeed, in enumerating the list of potentially relevant factors, the *Georgia-Pacific* court explicitly rejected any kind of mandatory formula or test in deciding the relevance or relative weight of any one factor, other than an established royalty:

> The drawing of proper conclusions from conflicting evidence concerning the amount of a reasonable royalty has been said to call "for the exercise of judicial discretion by the District Court." *General Motors Corp. v. Dailey, 93 F.2d 938, 942 (6th Cir. 1937).* Both sides agree that this Court has a broad range of judgment in evaluating the relevant factors. In the present case there is a multiplicity of inter-penetrating factors bearing upon the amount of a reasonable royalty. ***But there is no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent.*** In discharging its responsibility as fact finder, the Court has attempted to exercise a

[3] *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970). The *Georgia Pacific* factors include, for example: (i) the rates paid by the licensee for the use of other patents comparable to the patent in suit; (ii) the nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold; (iii) the licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly; and (iv) the commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.

> discriminating judgment reflecting its ultimate appraisal of all pertinent factors in the context of the credible evidence. (emphasis added)

This flexible, market-based process for calculating a reasonable royalty has been applied in thousands of patent cases. Congress should not depart from this well-established methodology, particularly when the proposed apportionment amendments appear to ignore hard-won lessons about the dangers of rigid damages rules and formulas. Indeed, by resurrecting a mandatory apportionment test, Congress risks repeating mistakes of the past and subjecting patentees and infringers to the same uncertainty, excessive litigation costs and unfair damage awards that ultimately led to the flexible, market-based damages standard codified in Section 284.

The Department of Commerce in a recent letter to Chairman Berman reiterated the importance of preserving the flexible methodology of *Georgia-Pacific*, despite questions about recent, seemingly high damage awards. Damages awards in patent cases can and should reflect a variety of factors; and neither courts nor juries should be precluded from considering potentially relevant factors, or required to elevate any one factor over another:

> While the appropriateness of damage awards in a number of patent cases may be subject to debate, DOC does not believe that a sufficient case has been made for a legislative provision to codify or emphasize any one or more factors that a court may apply when determining reasonable royalty rates. . . . It appears that the courts have adequate guidance through *Georgia-Pacific* and, as a general matter, do in fact consider numerous factors in determining royalty rates. . . The amount of a reasonable royalty should turn on the facts of each particular case, as best as those facts can be determined.[4]

Of course, apportionment of damages may be appropriate in certain situations. Indeed, among the 15 factors enumerated by the *Georgia-Pacific* court is "The portion of realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer" (factor 13). Consistent with *Georgia-Pacific*, the Federal Circuit's model jury instructions permit consideration of the "portion of the profit that is due to the patented invention, as compared to the portion of the profit due to other factors." Apportionment, however, is not appropriate in all cases. In particular, courts have long held that the parsing of a patent's value is sensible only if the patent represents a relatively insignificant and separable part of the overall product. In contrast, where a patent is responsible for all or substantially all of the product's market value, apportionment is unnecessary and inappropriate. Similarly, apportionment is never

[4] Letter from John J. Sullivan, General Counsel of the US Department of Commerce, to the Honorable Howard L. Berman, Chairman, Subcommittee on Courts, the Internet, and Intellectual Property, Committee on the Judiciary, US House of Representatives (May 16, 2007).

appropriate in cases where the patentee demonstrates an established, market-tested royalty.

The Senate apportionment proposal departs from these principles in numerous, significant respects that would greatly diminish the patent rights and remedies of InterDigital and other innovative firms that rely upon their patents to generate licensing revenue and fund ongoing research and development. Beyond the rigid mandate that courts apportion damages in virtually all cases, the proposed amendment would create an entirely new standard of apportionment that limits a patent's value to its "specific contribution over the prior art." In addition, the court must exclude from the royalty amount the "economic value properly attributable to the prior art, and other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process." This unprecedented and subjective analysis could lead to absurd and wholly inequitable results in which a patented technology is deemed to have little or no demonstrable value, even in cases where a well-established history of licensing exists.

In contrast, the existing apportionment test, as articulated in *Georgia-Pacific*, looks to the value of the entire patented "invention," as defined by the examination process. Once granted, the patent as a whole has been deemed useful, novel and non-obvious and thus entitled in full to exclusive rights and remedies. The Senate's mandatory apportionment proposal would, in effect, call into question the significance of this examination process, and signal that only certain parts of the patent, as arbitrarily defined by the court, are valuable and thus eligible for damages.

The only proposed exception to mandatory apportionment is a new and much-heightened formulation of the "entire market value rule", which requires the patentee to show that the patent's "specific contribution over the prior art is the predominant basis for market demand for the infringing product or process." Here again, the terminology "specific contribution over the prior art" has no defined or well-understood meaning under existing patent law and, as a result, will inject considerable uncertainty into damages proceedings. Similarly, the requirement that a patent's "specific contribution" be the "predominant" basis for market demand will for most complex technologies erect an insurmountable burden of proof that will gut the "entire market value rule" of any relevance.

Perhaps most troubling is the fact that the bill relegates evidence of negotiated licensing terms to a secondary consideration that can and must be ignored by the court to the extent that such terms conflict with the dictates of apportionment. Under the Senate bill, a court must apply the new apportionment analysis even in cases where the patentee demonstrates a history of negotiated royalties and licensing terms; moreover, the court has discretion to ignore these terms altogether. There is simply no economic or legal justification for mandating that a court and jury second-guess the market, and doing so will only encourage infringement.

Under the new mandatory apportionment provision, many infringers will feel emboldened to continue their infringing activity because their exposure to damages under

the amended Section 284 is dramatically decreased or at least made less certain. Infringers, to the extent they are willing to engage at all in licensing discussions with a patent holder, will adopt negotiating positions with intractably low financial elements, thereby significantly reducing the likelihood of arriving at a negotiated license agreement. At the same time, patent holders that rely upon licensing as the mechanism for securing a return on their investment in innovation will be forced to litigate in order to achieve at least a modest financial reward for their inventive contribution to society.

Negotiated licenses, absent litigation, will decrease because infringers will demand royalty terms significantly below what their exposure may be at trial. With diminished risk to an infringer for continued unlicensed activity, negotiated resolutions of patent disputes will significantly decrease and litigation will increase commensurately. Along with an increase in litigation, costs for legal proceedings will also grow as the new process for calculating damages will in virtually every case require the court to determine "the patent's specific contribution over the prior art."

The extreme difficulty and cost of administering such a novel and complex standard was emphasized in a recent letter to Chairman Leahy and Senator Hatch from Chief Judge Paul Michel of the US Court of Appeals for the Federal Circuit, the judicial circuit that hears all appeals from federal district courts arising under US patent laws. In his letter, Chief Judge Michel noted that courts and juries are ill-equipped to interpret or apply this new apportionment test, and the requirement that they do so will inevitably lead to costly battles between expert witnesses and increased litigation costs and delays:

> This is a massive undertaking for which courts are ill-equipped. For one thing, generalist judges lack experience and expertise in making such extensive, complex economic valuations, as do lay jurors. For another, courts would be inundated with massive amounts of data, requiring extra weeks of trial in nearly every case. Resolving the meaning of this novel language could take years, as could the mandating of proper methods. The provision also invites an unseemly battle of "hired-gun" experts opining on the basis of indigestible quantities of economic data. Such an exercise might be successfully executed by an economic institution with massive resources and unlimited time, but hardly seems within the capability of already overburdened district courts.[5]

Chief Judge Michel concludes by stating that he is "unaware of any convincing demonstration of the need" for this new mandatory apportionment standard.

What makes the practical application of this new requirement even more dubious is that patent examiners themselves do not engage in determining a patent application's "specific contribution over the prior art." Instead, during examination, a patent is

[5] Letter from Chief Judge Paul R. Michel of the US Court of Appeals for the Federal Circuit, to the Honorable Patrick Leahy and the Honorable Orrin G. Hatch, US Senate (May 3, 2007).

awarded if the applicant can demonstrate that claimed invention is useful, novel and non-obvious. A patent applicant is not required, nor should he or she be, to articulate the *specific* contribution of the patent application over the prior art. Rather, the applicant need only demonstrate that the claimed invention *is* novel and non-obvious over the prior art. Put differently, it is the *entire claimed invention*, not merely a parsing of claim elements, that reflects the patent's contribution over the prior art. Thus, the process of determining a patent's *specific* contribution over the prior art is one which has never been undertaken by the courts, juries or even by the USPTO. Clearly, then, the apportionment measure will decrease incentives to innovate and increase the frequency and cost of litigation.

Post-Grant Opposition

Although InterDigital recognizes that existing reexamination procedures are capable of improvement, we oppose the introduction of a new, duplicative and potentially burdensome post-grant opposition process as both premature and harmful to the thousands of innovative firms that rely upon enforceable patent rights to fund ongoing research and development.

Reexaminations procedures are an important part of our patent system and a critical check on the small percentage of patents that are erroneously granted each year. At the same time, however, such procedures must also strive to preserve the value and enforceability of the vast majority of meritorious patents.

Under Chapters 30 and 31 of the Patent Act, a patent can be challenged at the USPTO through both *ex parte* and *inter partes* reexamination procedures, respectively. Unlike *ex parte* reexamination, *inter partes* reexamination allows the third party to participate during the process of reexamination by submitting written comments addressing issues raised by the patent examiner or the patent owner's response to the PTO. The opportunity for reexamination under these two sections of the Patent Act extends for the life of the patent. However, a party is estopped from raising at a later time any ground for invalidity that the third party raised or could have raised during the reexamination proceedings, unless the assertion of invalidity is based on newly discovered prior art unavailable to the challenger and PTO at the time of the original reexamination proceedings.

During the process of reexamination, the patent owner may make amendments to the claims of the patent in order to arrive at the proper scope of protection for the claimed invention. In some cases, every claim of a patent is canceled, but usually the claims are confirmed or substituted with new or amended claims. This process recognizes that although certain issued patent claims may be invalid in view of newly identified prior art, the patent holder should be able to modify the scope of patent protection in view of this prior art and retain rights in the adjusted claims. In that respect, the goal of reexamination is not to "bust" patents, but to ensure that their scope is appropriate in view of the prior art.

This Senate bill proposes yet another mechanism for reviewing issued patents in addition to *ex parte* and *inter partes* reexamination, and also expands the existing *inter partes* process by narrowing its estoppel effect and permitting challenges of all issued patents. The proposed post-grant opposition process would allow parties to petition the PTO to cancel claims of a granted patent, but in the context of a quasi-judicial proceeding with administrative judges, discovery, cross-examination and other costly aspects of litigation. This post-grant review would be available to petitioners during a "first window" lasting 12 months after the grant of the patent and during a "second window" which may be opened if the petitioner receives notice of infringement of the patent or if the petitioner establishes a substantial reason to believe the patent claim is likely to cause the petitioner significant economic harm. A patent may also be reviewed at any time upon written consent of the patent owner.

InterDigital believes that adding an expansive and duplicative new post-grant opposition process, while maintaining and expanding the existing *inter partes* reexamination process, would subject patents to an unfair and unreasonable number of duplicative attacks on validity. Under the proposed opposition system, only those grounds that are actually raised by a petitioner are estopped from being asserted again in a subsequent administrative proceeding or civil action. This narrow estoppel effect will encourage duplicative administrative and judicial challenges -- a threat further exacerbated by the bill's narrowing of the *inter partes* estoppel effect.

In addition to the threat of harassment, patentees will find it far more expensive to defend administrative challenges under the proposed opposition system. A post-grant opposition system would combine aspects of a judicial and administrative reexamination process, but eliminate or substantially dilute existing safeguards that have effectively discouraged misuse of the system. In the process, it would create a quasi-judicial system of administrative litigation that heavily tips the balance in favor of the challenger's interests. Unlike a civil proceeding, a post-grant opposition system would facilitate invalidation by eliminating the patent's presumption of validity and reducing significantly the challenger's evidentiary burden to mere preponderance of the evidence (compared with the rigorous clear and convincing standard that governs judicial invalidity challenges). Moreover, because the proposed opposition system would unnecessarily restrict the patentee's ability to amend its claims (in contrast with the flexible *inter partes* reexamination process), it would encourage outright invalidation of a patent that may simply require an adjustment in scope. This threat will be used aggressively by accused infringers against patent owners.

Patent owners will bear the brunt of these increased litigation costs, particularly if opposition is permitted for any issue of patentability throughout the life of the patent. In contrast, a competitor or free rider - relieved of robust evidentiary requirements and the risk of estoppel - would have every incentive to seek opposition, regardless of the patent's strength. Such a system would inevitably invite abuse, allowing corporate giants to misuse opposition litigation as a means of blocking patents that frustrate their business interests. Indeed, by stripping a patent holder of the protections that guard against

baseless challenges, an open-ended opposition threat would cast a permanent cloud over a patent's legitimacy and enforceability.

This potential for costly, duplicative and harassing attacks on granted patents would be extremely detrimental to patent holders that rely upon negotiated license agreements to secure revenue and financing. The proposed regulations and sanctions for abuse would do little to prevent gamesmanship of the system, since demonstrating misuse would be an extremely difficult exercise. The proposed post-grant opposition system would thus allow infringers to utilize different channels of post-grant review to avoid legitimate licensing efforts. Such a result would be particularly devastating for start-ups and other smaller firms whose very survival is often dependent on early stage venture capital and licensing revenue.

Significantly, the current proposal for post-grant review would do little to improve patent quality. If afforded an indefinite "second window" that can be triggered by virtually any challenger at any time, third parties in possession of relevant prior art would have little incentive to bring such references to the PTO's attention, particularly if the estoppel effect of a second window is no broader than that of the first window. Instead, a potential infringer would almost always be inclined to hold onto the prior art until the last possible moment (e.g., after repeated attempts by the patent holder to negotiate a patent license resulting in a dispute that appears headed for litigation) before filing a "second window" petition for cancellation of the patent.

Finally, a surge in complex post-grant proceedings will further strain an already over-burdened and under-funded USPTO staff, thus jeopardizing the agency's ability to improve pre-grant patent quality. The Department of Commerce echoed this concern in its letter to Chairman Berman, noting that the proposed "second window coupled with the substantial number of patents subject to the proposed review procedures create very legitimate concerns about the USPTO's ability to effectively handle the potential workload." With a portfolio of some 400,000 patent applications per year, the USPTO is struggling to perform its core examination functions, as evidenced by application pendency periods of 30-40 months. The proposed post-grant opposition system will inevitably divert funding from the examination corps, potentially resulting in even greater delays and, most importantly, diminished patent quality.

To guard against these negative effects, we urge Congress to consider improvements to the existing post-grant system of *inter partes* reexamination in lieu of a new, duplicative and potentially burdensome administrative review process. If post-grant opposition is ultimately deemed to be a necessary and preferable alternative to *inter partes* reexamination, implementation of a new opposition proceeding should not occur until the USPTO has demonstrated its ability to perform core examination functions in a timely manner and is given the resources to manage the significant demands of a new system of administrative litigation. Even at that time, opposition proceedings should be limited to a single window of review (i.e., within 12 months of issuance) and combined with adequate safeguards against abusive challenges, including a meaningful estoppel effect and a mechanism to allow the patent holder to freely amend his/her claims as in the current

reexamination process, to ensure that patent owners enjoy clear title over their inventions throughout the lives of their patents.

Substantive USPTO Rulemaking Authority

InterDigital believes that substantive and potentially significant changes to patent rules are ill-suited to administrative rulemaking processes and should remain the exclusive domain of Congress.

The Senate bill would empowers the Director of the USPTO with unprecedented and expansive substantive rulemaking authority, which would encompass any "rules, regulations, and orders that the Director determines appropriate to carry out the provisions of [the Patent Act] or any other law applicable to the [USPTO] or that the Director determines necessary to govern the operation and organization of the Office." This rulemaking authority would pave the way for well-intentioned but inadvisable regulatory changes, including severe restrictions on continuation and claim practice that are opposed by the overwhelming majority of patent holders. Significantly, even the Department of Commerce voiced concerns about "unbounded discretion" in its letter to Chairman Berman and recommended against an overly broad grant of rulemaking authority.

Because of various limits on its jurisdiction, the USPTO lacks meaningful exposure to the commercial and economic complexities of patents post-issuance, and thus lacks the breadth of perspective and experience to legislate effectively in substantive and critical areas of patent prosecution. As evidence of this, the USPTO has recently proposed significant regulatory changes that would negatively impact innovators and economic growth, including unprecedented limitations on continuation and claims practice. The fact that the USPTO has hastily finalized these new rules -- without disclosing its underlying studies and despite overwhelming opposition among patent holders -- confirms that its rulemaking procedures are ill-equipped to conduct administrative patent reform with the necessary deliberation and transparency.

Interlocutory Appeals

Although InterDigital shares the committee's desire to reduce litigation costs and delays, we fear that immediate appeals of claim construction rulings would have the opposite effect and benefit only those litigants with deep pockets.

The Senate bill would expressly authorize an immediate appeal to the Court of Appeals for the Federal Circuit (CAFC) after a pre-trial *Markman* hearing on claim construction. Although aimed at reducing the length and cost of patent litigation, InterDigital believes that an immediate appeal right could have the reverse effect of increasing the costs and delays of litigation, as noted in Chief Judge Michel's letter to Chairman Leahy and Senate Hatch. We thus encourage the committee to remove this amendment from the bill.

Claim construction in a patent infringement litigation is conducted pre-trial during a proceeding known as a *Markman* hearing. Upon considering briefs and oral arguments, the court issues an order construing contested claim terms in a patent. The claim construction is the framework used by the jury (or the court in a bench trial) to determine whether an accused method or device infringes the patent at issue.

Under current law, issues concerning claim construction may be appealed to the CAFC upon a judgment from the lower court. The Senate bill would allow a party, as a matter of right, to appeal from an interlocutory order on claim construction. Since claim construction is a crucial component to virtually all patent infringement cases, a party dissatisfied with the lower court's order will most likely pursue an appeal to the CAFC. As a result, this right of appeal will significantly delay final judgments from the lower court and result in increased delays in reaching potential settlements, as well as increased litigation costs.

Similarly, a dramatic increase in the number of appeals brought to the CAFC will further stretch its limited resources, causing further delays and costs at the appellate level. In his letter to Chairman Leahy and Senator Hatch, the CAFC's Chief Judge Michel noted that based on empirical studies, immediate appeal of claim construction rulings could double the number of filings to the CAFC and also double the amount of time necessary to resolve an appeal from one to two years. In the meantime, proceedings at the trial court level would be frozen, thus doubling delays in district courts, which according to Judge Michel, are typically two to three years. InterDigital also shares Judge Michel's concern that claim construction appeals could lead to significant inefficiencies, as claim construction rulings are subject to change during summary judgment proceedings or trials.

InterDigital Supports Balanced Reforms that Promote Patent Quality, Fairness and Incentives to Innovate

InterDigital supports legislative reforms that would enhance pre-grant patent quality and reduce the uncertainty and inefficiency of patent litigation, including, for example, [a permanent end to fee diversion, enhanced third party prior art submissions, universal publication of patent applications and enhanced judicial training.]

The concept of patent "reform" signifies improvements to the efficiency, fairness and overall strength of our patent system. As a licensing-based business that lives or dies on the strength of its patents, InterDigital is a staunch advocate of true patent reform, particularly measures that enhance patent quality, preserve incentives to innovate, and promote a fair and balanced playing field among all stakeholders, large and small.

In our view, mandatory apportionment, post-grant opposition, expansive USPTO rulemaking authority, and interlocutory appeals fall outside the realm of patent "reform" and, in fact, would degrade patent rights and increase the prevalence, costs and uncertainty of litigation, particularly for smaller innovators. The aim of patent reform is

not to gut the patent rights critical to today's knowledge-based economy, but instead to bolster the system with measures that will improve *pre-grant* patent quality.

Patent quality is best achieved by pre-grant measures that provide examiners with the resources, training and information needed to properly assess whether an invention is, in fact, novel, non-obvious and useful. A recent study by the National Research Council also demonstrates that increases in patent examination resources yield important reductions in post-grant litigation, further underscoring the critical importance of such measures.[6] To its credit, the USPTO has taken several steps in recent years to improve pre-grant quality, including by hiring of thousands of new examiners and strengthening its training programs.[7] The results are promising. In December 2006, the USPTO reported a significant decrease in the patent allowance rate to a record low of 54 percent -- a dramatic drop from the 2000 rate of 70 percent. In addition, the USPTO in 2006 achieved its lowest error rate in 20 years -- 3.5 percent. Of course, to maintain this trend, it is imperative that the USPTO continue to receive the resources necessary to evaluate an escalating number of patent applications. And to that end, what is most needed is legislation to permanently end patent fee diversion. Patent reform legislation stands little chance of achieving positive and concrete improvements without addressing vital resource issues. InterDigital is well aware that the committee shares our concerns about fee diversion, and we are very appreciative of your long-standing efforts to ensure that the USPTO retains its fees.

In that same vein, increased USPTO resources will yield quality gains only if examiners have the information and incentives to recognize and reject claims for obvious or non-novel inventions. InterDigital thus supports measures that would foster an environment of cooperation between patent examiners and applicants and increase the prior art available to examiners. These include, for example, the Senate bill's proposal to increase third-party submissions and mandate universal publication of all patent applications.

InterDigital also supports reforms designed to reduce litigation costs, uncertainty and abuse. It is a mistake, however, to characterize efforts to weaken the enforceability of legitimate patents as litigation reforms. Not only would such measures undercut the rights of all patent owners to protect a few corporate giants from potential infringement litigation, they would ultimately increase the number of lawsuits by encouraging infringers to seek court-ordered rather than market-based solutions.

We believe that litigation reforms should reduce the subjective, unpredictable and inefficient aspects of patent litigation that negatively impact patent owners and users alike. For example, we would encourage the committee to reintroduce an amendment to

---

[6] *Patents in the Knowledge-Based Economy*, Wesley M. Cohen and Stephen A. Merrill, Editors, Committee on Intellectual Property Rights in the Knowledge-Based Economy, National Research Council (2003).

[7] In addition, the USPTO just announced a revolutionary beta program to identify the most relevant prior art through the use of peer review system. Innovative approaches of this type should be encouraged.

eliminate the best mode requirement. A narrow but meaningful reform of this type strikes the right balance by reducing subjective aspects of the patent system that escalate litigation costs, without diminishing the rights and remedies of legitimate patent owners. Similarly, InterDigital supports measures that would enhance judicial training in patent law and, in turn, steer patent cases towards district court judges with the desire and expertise to take on these complex and highly technical matters. Reforms of this type would heighten the fairness, predictability and efficiency of patent litigation for all stakeholders. We also believe that statutory clarification of the inequitable conduct defense could benefit all participants in the patent system, provided that such a measure appropriately balances the interests of patent owners and users.

Conclusion

Given the critical importance of our patent system to American innovation and economic leadership, it is imperative that patent reforms be carefully tailored to achieve necessary improvements and, in all cases, to promote and protect investments in innovation. The over-arching goal of patent quality is ill-served by measures that would destabilize our current system of patent rights and remedies and, in turn, jeopardize the global leadership of this country's most innovative industries.

If our shared objective is to improve patent quality while preserving incentives to innovate, we should instead pursue reforms that enhance patent examination resources and capabilities within the USPTO and make it harder for questionable patent applications to survive pre-grant scrutiny. The USPTO has already taken important steps to achieve these goals, hiring thousands of new examiners, instituting new training programs and committing annually to performance benchmarks. But it needs Congress's support in the form of a predictable flow of resources and hence a permanent end to fee diversion. In addition, InterDigital encourages this committee to pursue constructive but narrowly tailored reforms that would increase access to prior art and lessen the subjective aspects of litigation. Carefully structured measures of this type would ultimately fortify the health of our patent system without endangering the rights of American's most innovative firms.

The Senate patent bill has been described as the most significant piece of patent legislation in over 50 years. As such, it is no exaggeration that this bill and its proposed changes to our patent system will have a dramatic impact on the future course of American innovation. Although InterDigital believes that many of the bill's provisions will have a positive impact, encouraging companies like ours to invest in the cutting edge innovations that will secure our country's economic leadership, we fear that mandatory apportionment, open-ended post-grant opposition, broad administrative rulemaking authority and interlocutory appeals could have a very detrimental effect, particularly if they signal to other countries a weakening of America's commitment to strong patent rights.

America's system of patent rights and remedies can and should be improved, but it is universally recognized throughout the world as the gold standard. As such, it has given

us the moral authority and credibility to fight for stronger protection of U.S. innovations in other markets. Maintaining that authority is critical in today's increasingly competitive global economy. America's leadership in this knowledge-based economy is highly dependent upon the ideas and innovations that constitute our most valuable natural resources and our most desirable exports. If the United States weakens patent rights and remedies at home, our ability to press foreign countries to respect American intellectual property will be greatly diminished. Indeed, we will embolden other countries to adopt even more damaging policies that could jeopardize the continued preeminence of America's most productive industries.

Written Testimony of

Kathryn L. Biberstein

Senior Vice President

General Counsel and Secretary, Chief Compliance Officer

Alkermes, Inc.

Cambridge, MA

Testifying on Behalf of

The Biotechnology Industry Organization (BIO)

Before the United States Senate

Committee on the Judiciary

Hearing Entitled

"Patent Reform: The Future of American Innovation"

June 6, 2007

Chairman Leahy, Ranking Member Specter, and Members of the Committee, I am pleased to testify before you today on the critically important topic of patent reform. On behalf of the Biotechnology Industry Organization, of which my company Alkermes counts itself a proud member, I would like to thank this Committee for its continuing leadership in strengthening the foundation of American innovation: Intellectual Property. I also would like to thank the Committee for convening this hearing to discuss how we can, working together, develop a balanced and effective set of reforms to the U.S. patent system so that it continues to drive American innovation forward.

My name is Kathy Biberstein, and I am the Senior VP and General Counsel for Alkermes, Inc. Alkermes is exactly the sort of success story that the U.S patent system has fostered in this country. Alkermes was founded 20 years ago by leading academics in the Cambridge area on the basis of a proprietary patent estate. Last year, Alkermes leveraged its assets to become one of the few profitable, self-sustaining biotechnology companies in the sector. We reached this important milestone by developing innovative medicines based on our proprietary patent estate designed to yield better therapeutic outcomes and improve the lives of patients with serious disease. Today Alkermes has developed two commercial products: RISPERDAL® CONSTA®, ((risperidone) long-acting injection), the first and only long-acting atypical antipsychotic medication approved for use in schizophrenia, and marketed worldwide by Janssen-Cilag (Janssen), a wholly-owned division of Johnson & Johnson; and VIVITROL® (naltrexone for extended-release injectable suspension) the first and only once-monthly injectable medication approved for the treatment of alcohol dependence and marketed in the U.S. primarily by Cephalon, Inc. We are also working on several additional important product candidates in disease areas with large unmet medical need such as the treatment of diabetes, chronic obstructive pulmonary disease, and alcohol and opiate dependence. It is primarily through the strength of the patents covering our technologies that Alkermes has

been successful in obtaining the venture capital and public market and other financing necessary to develop our pipeline of innovative products.

As I noted at the outset, I am here today representing the Biotechnology Industry Organization or BIO. BIO's membership includes more than 1,100 biotechnology companies, academic institutions, state biotechnology centers, and related organizations in all 50 U.S. states. BIO members – the vast majority of whom are small, emerging companies with little revenue and no marketed products – are involved in cutting-edge research and development of health care, agricultural, industrial, and environmental biotechnology products – products that are revolutionizing patient treatment and greatly expanding our ability to feed a growing world population, and offer the promise of reducing our dependence on oil and other fossil fuels and a cleaner environment for future generations.

I base my comments today on 15 years experience as a top executive in the biotechnology industry. I have perhaps a somewhat unique viewpoint on the issue of the contribution of intellectual property to innovation in America, as I spent eight years in the European biotechnology industry. While America has no monopoly on the generation of novel and inventive ideas for the treatment of serious disease, what it does have is a remarkable ability to fund the development of those ideas at early stages – frankly to the benefit of the entire world's population. It is mindful of this extremely important societal benefit that I present my testimony today.

The biotechnology industry, fueled by the strength of the U.S. patent system, has provided jobs for over 200,000 people in the United States, and has generated hundreds of drug products, medical diagnostic tests, biotech crops, and environmental products. In the healthcare sector alone, the industry has developed and commercialized over 300 biotechnology drugs and diagnostics that are helping more than 325 million people worldwide; another 370 biotechnology products are in the pipeline. In the agricultural

field, biotechnology innovations are growing the economy worldwide by simultaneously increasing food supplies, reducing pesticide damage to the environment, conserving natural resources of land water and nutrients, and increasing farm income. Biotechnology companies are also leading the way in creating alternative fuels from renewable sources without compromising the environment.

Biotechnology innovation has the potential to provide cures and treatments for some of the world's most intractable diseases, such as cancer, Alzheimer's, Parkinson's, and HIV/AIDS, and to address some of the most pressing agricultural and environmental challenges facing our society today. All of this innovation is possible because of the certainty and predictability provided by the U.S. patent system. Therefore, when considering changes to this system, we urge the Committee to consider carefully the cautionary language embraced by the Hippocratic Oath – first, do no harm.

The Role of Patents in Biotechnology

Biotechnology product development often takes more than a decade and hundreds of millions of dollars of capital investment, a significant amount of which comes from private sources. Biotechnology product development is also fraught with high risk, and the vast majority of experimental biotech products fail to ever reach the marketplace. Investors will invest in capital-intensive, long-term, and high-risk research and development endeavours only if they believe there will be a return on their investment. Patents provide this assurance. Without strong and predictable patent protections, investors will shy away from investing in biotech innovation, and will simply put their money into projects or products that are less risky – without regard for whether they provide less societal value. Further, collaborative research and development between small innovators and large manufacturers, which is often the only route to commercialization for small biotech companies, could be delayed or even undermined by attacks on patents over time.

Consequently, as Congress considers reforms to the patent system, it must be mindful of the critical role of patents in the growth and development of companies in the biotechnology sector. Different industries have different business models. For the biotechnology industry, effective patent protection is a necessity, not simply a business advantage or a luxury. We urge this Committee to take great care to ensure that any reforms it enacts support future innovation in all sectors of American society.

BIO's Views on Patent Reform

BIO members believe that, in the biotechnology arena, the patent system has done exactly what it was intended to do: stimulate innovation and R&D. By and large, biotechnology patents are of high quality. That is not to say that there is no room for improvement. As Congress crafts patent reform, BIO would urge the enactment of the following reforms:

- BIO supports full funding for the agency responsible for granting patents—the United States Patent and Trademark Office (PTO). This can be most effectively achieved by permanently ending fee diversion and thus ensuring that all fees collected by the PTO are used to improve the efficiency of the patent system.

- As means for enhancing patent quality, BIO supports expanded opportunities for members of the public to submit prior art during patent examination and repeal of the judicially-created inequitable conduct doctrine, which is chilling the exchange of information between patent applicants and PTO examiners.

- BIO supports a transition to a first inventor-to-file system.

- BIO supports willful infringement reforms that would specify that the litigants must first resolve the validity and infringement of the patent before turning to

willfulness, as well as clarify the conditions under which courts can determine that willful infringement occurred.

- BIO supports, in principle, venue reforms that would discourage forum-shopping and encourage the choice of courts in districts where infringement occurred and where the parties actually conduct business, or where the evidence and witnesses are located.

- BIO supports reforms that would expand the prior user defense beyond methods of doing business to all statutory subject matter commercially used prior to the effective filing date of the claimed invention.

- BIO supports repeal of the Best Mode description requirement, which has no counterpart in foreign patent laws and serves largely as an often-abused defense in patent litigation to attack the subjective state of mind of the patent applicant.

- BIO supports restoring a rebuttable presumption of irreparable harm and inadequacy of remedies at law when evaluating a request for a permanent injunction following a finding of patent infringement, so that the right to exclude – which is the essence of the patent right – is not undermined.

BIO's Position on S. 1145, the Patent Reform Act of 2007

BIO welcomes efforts by this Committee to make improvements to the U.S. patent system. S. 1145, the Patent Reform Act of 2007, which was introduced by Chairman Leahy and other members of this Committee, contains many – although not all – of the laudatory reforms outlined above. However, BIO is very concerned that other provisions in the bill would unintentionally promote uncertainty surrounding, and weaken the

enforceability of, validly issued patents. The potential harm of the following provisions in S. 1145 is so great that BIO must oppose the bill in its current form:

Open-ended Post-Grant Opposition: BIO opposes provisions in S.1145 that would create an essentially limitless opportunity to broadly challenge a patent administratively at any time during the life of the patent. This post-grant review provision would be a dramatic departure from domestic and international norms, casting a cloud of uncertainty over issued patents. Under this new system, virtually any competitor or purchaser of the patent holder – indeed, any person that demonstrates "significant economic harm" from the patent – can commence such a challenge at any time. And, contrary to long-standing federal law, the patent would be given no presumption of validity.

If a patent can be easily challenged at any time under a low standard of proof – even years after the patentee and the public have come to rely on it, and years after biotech companies have invested hundreds of millions of dollars to bring a patented invention through clinical trials and regulatory approval – patents will have much less value, and investment predicated upon them will inevitably be diminished. This, in turn, will likely result in fewer cures for diseases and other breakthrough biotechnology products. This life-of-the-patent challenge opportunity also incentivizes dubious behavior by excusing poor due diligence by infringing companies, and by encouraging competitors to delay their validity challenge until they can maximize its impact.

BIO also shares the concerns expressed in the Department of Commerce's letter to House Judiciary Subcommittee Chairman Howard Berman, dated May 16, 2007, that the broad "second window," along with the substantial number of patents subject to the proposed review system, would undermine the ability of the PTO to effectively implement any new post-grant opposition system. As the expert agency charged with administering this new proceeding, we believe the PTO's views in this matter deserve careful consideration. We note that the PTO is actively engaging in the public discourse over a possible new post-

grant review proceeding, and is suggesting alternatives aimed at providing post-grant patent review and an administrative alternative to patent validity litigation in a way that would mitigate the cloud of uncertainty fostered by the current bill.

In BIO's view, in order to prevent abuse and misuse of any new post-grant opposition system, any administrative alternative to patent validity litigation must maintain the presumption of validity of patent claims that were issued by the PTO. Further, any post-grant opposition system must include incentives to bring validity challenges early in patent life, and contain limits on the ability of challengers to harass patent owners. If we in the biotechnology industry – with long product lead times and a multitude of complex granted patents to evaluate – are comfortable with limiting post-grant validity challenges to early in a patent's life, as currently exists in the European patent system, we think the bar is set quite high for industries with substantially shorter product development, and indeed product life, cycles to justify the necessity of longer periods during which such reviews should be permissible.

Last, creation of a new post-grant opposition system also must be accompanied by other critical reforms to the patent system – particularly, repeal of the inequitable conduct doctrine and Best Mode requirement, transition to a first-inventor-to-file system, and restoration of the presumption of injunctive relief to prevent continuing infringement.

Apportionment of Damages: BIO also opposes the provision in S. 1145 that would dramatically expand the situations in which a court would be forced into an "apportionment" process to determine what damages a patent owner should be awarded once a patent is found to be valid and infringed. Under current law, a guilty infringer of a patent currently has to pay the patentee damages adequate to compensate for the infringement, which may be the patentee's "lost profits," but are often limited to a "reasonable royalty." In determining a reasonable royalty, courts follow a flexible set of factors, including the 15 outlined in the landmark *Georgia Pacific* case, designed to

ensure that the patent holder receives a fair royalty based on the value of his or her invention, but is not compensated excessively. The gist of these factors taken together is that a reasonable royalty is what a willing licensee under the patent would have agreed to pay and a willing licensor would have agreed to accept for a patent that both parties agreed was valid and infringed.

The Patent Reform Act of 2007 would introduce a new mandatory procedure for determining and applying reasonable royalty damages, forcing the courts to use an entirely new and uncertain standard that would directs courts to "ensure that a reasonable royalty is applied only to that economic value properly attributable to the patentee's specific contribution over the prior art." In other words, the court would be required to subtract from the infringed patent claim all elements that existed previously in the prior art, regardless of whether they ever existed in the claimed configuration or performed a similar function. Such an approach ignores the fundamental facts that virtually all inventions are, to some degree, premised on prior art, and that many patented components are essential to the intended functionality of the overall infringing product – two facts that are particularly applicable to biotech patents.

During testimony before a House Judiciary Subcommittee on this issue, Members were directed to the example of the Post-it® note, and asked to consider what value remains for that invention once the value of the paper and the adhesive are subtracted out. But let me provide you with what I believe is a more compelling question – whether, for instance, as the parent of a diabetic child faced with years of insulin injections, you would want to disincentivize a company such as Alkermes from its groundbreaking work on an inhaled form of insulin that can replace multiple daily injections, simply because the starting point for that research – begun many years ago – were two things that already existed as "prior art," insulin and small, hand-held inhalers?

Assuming that courts and juries could even apply a prior art subtraction standard in a reasonably accurate manner (which, as noted below, is highly doubtful), the resulting residual royalties would be lower than the reasonable royalties calculated under current law and would compensate patent owners for only a portion of their invention, rather than its whole. This approach makes infringement cheaper – thus encouraging infringement and, more importantly, ultimately discouraging investment in the underlying technology.

On this issue, BIO urges Committee members to carefully consider the May 3, 2007 letter from Chief Judge Michel of the Court of Appeals for the Federal Circuit, which has been charged by the Congress with ensuring consistency in the application of patent law throughout the country. In his letter, the Chief Judge openly questions both the need for any changes to the law on apportionment and the ability of the judicial system to consistently and effectively implement the proposed new apportionment standard.

Clarity and predictability of patent rights, including the right to fair compensation for infringement, and the right to fairly stop infringers from future infringing acts, are of paramount importance to the biotechnology industry and must be part of any legislative debate on remedies for infringement.

Delegating to the PTO substantive rulemaking authority: S. 1145 would delegate, for the first time in the history of our patent laws, authority to the PTO to promulgate substantive rules interpreting the patent laws. BIO is unaware of any justification for this provision. Currently, the PTO has clear authority to promulgate regulations that govern the conduct of its proceedings. BIO is very concerned that granting broader, substantive patent law rulemaking powers could lead to agency "mission creep" and other unintended consequences at some point in the future. BIO is concerned that such unfettered rulemaking powers will permit the PTO to impose non-statutory restrictions on the ability of biotechnology companies and other innovative industries to obtain appropriate patent protection for their inventions. This is not unlike the concern the Commerce Department

itself expressed in its recent letter, when it stated: "We have concerns about unbounded discretion, and therefore want to be certain that any grant [of rulemaking authority] is not overbroad."

BIO further believes that substantive rulemaking authority for the PTO would upset the carefully crafted balance in current patent law, in which Congress sets the rules on patentability, the U.S. Court of Appeals for the Federal Circuit interprets those rules to ensure nationwide consistency, and the PTO and the various district courts implement them. Under principles of administrative law, however, the now-proposed scheme would compel reviewing courts to a level of deference to PTO decision-making that could lead to divergent interpretations of patent law between the PTO and the federal courts – thus creating conflicts and inconsistencies that would upset settled norms of patent law and work to the detriment of all users of the patent system.

BIO wants to emphasize that, with respect to its opposition to these three key provisions in S. 1145, it stands in good company. There is broad consensus, among a variety of industries and stakeholders across the spectrum of American society, against these proposed changes. We note that America's universities and research institutions, the National Association of Manufacturers, the Innovation Alliance, the Coalition for 21st Century Patent Reform, medical device manufacturers, the American Bar Association, the American Intellectual Property Law Association, and the Intellectual Property Owners Association all are in general agreement that enactment of these three provisions as currently drafted would be detrimental to the future of American innovation. It is essential that the common interest prevail over the special interest of a highly-vocal but minority segment of American industry.

This Committee also requested BIO's views with respect to the provision in the Patent Reform Act of 2007 that would create the right to appeal a district judge's claim construction order to the U.S. Court of Appeals for the Federal Circuit before the district

court case could advance to core issues such as infringement or validity. BIO shares in the concerns noted by some that the Federal Circuit would not be able to quickly dispose of large numbers of claim construction appeals so that the underlying district court litigations could resume expediently. To the contrary, such appeals could clutter the Federal Circuit's docket with piecemeal appeals, bog down the appellate process, and hold up the underlying infringement suits for years. BIO is fully aware that many claim construction orders are reversed when patent cases are ultimately appealed from the district courts. But we believe that additional consideration must be given to how best this problem should be addressed before Congress undertakes any reform in this area.

Additionally, BIO strongly believes that the following elements must be included in any patent reform initiative, and notes with disappointment their absence from the Patent Reform Act of 2007 in its current form:

Inequitable Conduct Repeal: BIO supports the National Academy of Sciences' recommendation for reform of the inequitable conduct doctrine. Inequitable conduct is a frequently-abused defense in patent litigation by which infringers can allege that otherwise valid patents are "unenforceable" due to alleged misrepresentations or omissions during the patent application process. The threat of such accusations is chilling communications between patent applicants and examiners, and is negatively impacting the quality and efficiency of patent examination today. It also is a key driver in the cost and length of patent litigation, and has been described as a "plague" by the U.S. Court of Appeals for the Federal Circuit. BIO believes that this doctrine should be abolished. The regulation of applicant conduct should be committed to the expert agency, the PTO. Courts should address objective questions of patent validity, infringement, and anticompetitive behavior, and should no longer have authority to declare objectively valid patents unenforceable for reasons unrelated to actual invalidity.

The need to repeal or restrict this doctrine is supported by a broad range of stakeholders in the patent system, in addition to the National Academy of Sciences, including many of the groups and institutions referenced above, as well as the Department of Commerce and the PTO.

Best Mode Repeal: BIO supports repealing the Best Mode requirement. This requirement, which is unique to U.S. patent law, requires an inventor to describe the best mode of practicing her or his invention. BIO believes, as does the National Academy of Sciences, that this doctrine has outlived its usefulness as a requirement of patentability, and is instead used in modern patent litigation to attack the subjective state of mind of the inventor at the time the patent application was filed, in a belated attempt to invalidate an otherwise valid patent. Again, repeal of this requirement is supported by many stakeholders, with the goal of making the patent system more objective and less costly.

Conclusion

In conclusion, BIO urges this Committee to continue its consultation with affected industry sectors and to ensure that any new patent legislation strengthens, rather than weakens, the patent system that serves as the foundation of current and future American innovation. We stand ready to work with this Committee to ensure true improvements to the patent system that can be supported by all innovative industries.

On behalf of BIO and its more than 1,100 members across the nation, I thank you again for the opportunity to present these views on patent reform and urge your careful consideration of them.

May 15, 2007

The Honorable Nancy Pelosi
Speaker of the House
H-232, the U.S. Capitol
Washington, DC 20515

The Honorable Harry Reid
Senate Majority Leader
S-221, the U.S. Capitol
Washington, DC 20510

The Honorable John Boehner
House Minority Leader
H-204, the U.S. Capitol
Washington, DC 20515

The Honorable Mitch McConnell
Senate Minority Leader
S-230, the U.S. Capitol
Washington, DC 20510

Dear Speaker Pelosi, Leader Reid, Leader Boehner and Leader McConnell:

On behalf of the undersigned companies, associations, venture capital firms and academic institutions representing and working with our nation's pioneering industries – electronics, telecommunications, life sciences, computer hardware, financial services, chemical, and biotechnology – we are writing to voice concern with certain provisions of patent reform legislation (H.R. 1908/S. 1145 – The Patent Reform Act of 2007) currently under consideration by Congress. We believe in measured and equitable patent reform that enhances clarity, fairness, and objectivity in our patent system to the benefit of innovative businesses in all sectors of our nation's economy. Unfortunately, we also believe that some of the proposed reform provisions hold serious negative consequences for continued innovation and American technological leadership in the increasingly competitive 21st century global economy.

As recognized in *The Innovation Agenda*, "Americans must continue to innovate in order to create new thriving industries that will produce millions of good jobs here at home and a better future for the next generation." We wholeheartedly agree, and support the *Agenda's* goals of educating a new generation of innovators, sustaining the federal commitment to research and development, and removing the hurdles that hinder entrepreneurial, small business success.

We also support *The Innovation Agenda's* call to improve intellectual property protections, strengthen the patent system, and end the diversion of patent fees. To that end, we welcome the leadership of Chairman Howard Berman and Chairman Patrick Leahy in working to address several of the patent reform suggestions outlined by the National Academies and others in their recently introduced legislation. ***However, we strongly believe that certain provisions, such as those dealing with apportionment of monetary damages for patent infringement, expansive PTO rule making authority, an open-ended post grant opposition system, and a narrow grace period will not strengthen our patent system but instead will fundamentally undermine patent certainty, discourage investment in innovative***

technologies, and reduce publication and collaborative activities among academic scientists.

For companies (directly, and as university licensees) in industries such as ours, the consequences – greater bureaucracy, inability to rely on valid patents, weakened protections against infringement and a decreased access to capital -- would be devastating. The harm to investment in tomorrow's technologies would be felt immediately, and would hurt U.S. competitiveness for years to come. As the U.S. presses for strong patent protections abroad, Congress should preserve strong protections at home, so that we retain our competitive edge in the global economy.

We remain committed to working with Congress in support of proposals to strengthen the U.S. patent system in ways that will preserve and promote innovation in businesses large and small, throughout all sectors of the economy. We therefore request, in the spirit of *The Innovation Agenda,* that you ensure that Congress carefully, deliberatively, and thoughtfully addresses these concerns as it considers the most dramatic patent reform legislation in over 50 years.

Thank you.

cc: The Honorable Patrick J. Leahy, Chairman, Senate Committee on the Judiciary;
The Honorable Arlen Specter, Ranking Member, Senate Committee on the Judiciary;
The Honorable John Conyers, Jr., Chairman, House Committee on the Judiciary;
The Honorable Lamar Smith, Ranking Member, House Committee on the Judiciary;
The Honorable Howard Berman, Chairman, Subcommittee on Courts, the Internet and Intellectual Property;
The Honorable Howard Coble, Ranking Member, Subcommittee on Courts, the Internet and Intellectual Property;
Members of Senate Committee on the Judiciary;
Members House Committee on the Judiciary.

Abbott
Abbott Park, IL

Abeille Pharmaceuticals, Inc.
Princeton, NJ

Acorn Cardiovascular Inc.
St. Paul, MN

Adams Capital Management
Sewickley, PA

Adroit Medical Systems, Inc.
Loudon, TN

Affinergy, Inc.
Research Triangle Park, NC

Almyra, Inc.
Boxborough, MA

AmberWave Systems
Salem, NH

Amylin Pharmaceuticals
San Diego, CA

Applied Medical Resources Corporation
Rancho Santa Margarita, CA

Argentis, LLC
Memphis, TN

Arizona BioIndustry Association
Scottsdale, AZ

ARYx Therapeutics
Fremont, CA

Ascenta Therapeutics, Inc.
San Diego, CA

Aspire Medical, Inc.
Sunnyvale, CA

AVAcore Technologies, Inc.
Ann Arbor, MI

Aware, Inc.
Bedford, MA

Barrier Therapeutics, Inc.
Princeton, NJ

Baxa Corporation
Englewood, CO

BioCardia, Inc.
South San Francisco, CA

BIOCOM
San Diego, CA

Biogen Idec
Cambridge, MA

BioMarin Pharmaceutical Inc.
Novato, CA

BioMedical Strategies LLC
La Jolla, CA

BioOhio
Columbus, OH

Biotechnology Council of New Jersey
Trenton, NJ

Biotechnology Industry Organization
Washington, DC

Boston Scientific Corporation
Natick, MA

BuzzLogic
San Francisco, CA

California Healthcare Institute
La Jolla, CA

Canopy Ventures
Lindon, UT

CardioDynamics
San Diego, CA

Celgene Corporation
Summit, NJ

Cell Genesys, Inc.
South San Francisco, CA

Colorado BioScience Association
Denver, Colorado

Corning
Corning, NY

Coronis Medical Ventures
Sunnyvale, CA

Dartmouth Regional Technology Center, Inc.
Lebanon, NH

Dynatronics Corporation
Cottonwood Heights, UT

Elan Pharmaceuticals, Inc.
San Diego and South San Francisco, CA

Emphasys Medical, Inc.
Redwood City, CA

Enterprise Partners Venture Capital
La Jolla, CA

eyeonics, Inc.
Aliso Viejo, CA

Fallbrook Technologies Inc.
San Diego, CA

Genentech, Inc.
South San Francisco, CA

Genmab A/S
Princeton, NJ

Genomic Health, Inc.
Redwood City, CA

Gen-Probe Incorporated
San Diego, CA

Georgia Biomedical Partnership
Atlanta, GA

Glacier Cross, Inc.
Kalispell, MT

Hawaii Science & Technology Council
Honolulu, Hawaii

Health Institute of New Jersey
Bridgewater, NJ

Helius, Inc.
Lindon, UT

iBIO
Chicago, IL

Indiana Health Industry Forum
Indianapolis, IN

InterDigital Communications Corporation
King of Prussia, PA

Intermolecular, Inc.
San Jose, CA

Invitrogen Corporation
Carlsbad, CA

Iowa Biotechnology Association
Des Moines, IA

ISTA Pharmaceuticals
Irvine, CA

Kansas Bioscience Organization (KansasBio)
Lenexa, KS

Life Science Alley
St. Louis Park, MN

LSI Corporation
Allentown, PA

Masimo Corporation
Irvine, CA

Massachusetts Biotechnology Council
Cambridge, MA

MassMEDIC
Boston, MA

Maxygen Inc.
Redwood City, CA

Medical Device Manufacturers Association
Washington, DC

MedImmune, Inc.
Gaithersburg, MD

Metabasis Therapeutics, Inc.
San Diego, CA

Metabolex, Inc.
Hayward, CA

MichBio
Ann Arbor, MI

MGI PHARMA, INC.
Bloomington, MN

Mohr Davidow Ventures
Menlo Park, CA

Monsanto
St. Louis, MO

Nektar Therapeutics
San Carlos, CA

NeuroPace, Inc.
Mountain View, CA

New Mexico Biotechnology and Biomedical Association
Albuquerque, NM

The Norseman Group
Parsippany, NJ

North Carolina Biosciences Organization
Durham, NC

Novo Nordisk, Inc.
Princeton, NJ

NRG, Inc.
Plano, TX

NuVasive, Inc.
San Diego, CA

Nuvelo, Inc.
San Carlos, CA

Palmetto Biotech Alliance
Columbia, SC

Pennsylvania BIO
Malvern, PA

Princeton BioMeditech Corporation
Princeton, NJ

QUALCOMM, Inc.
San Diego, CA

Radiant Medical, Inc.
Redwood City, CA

Retractable Technologies, Inc.
Little Elm, TX

Sangamo Biosciences
Richmond, CA

Satiety, Inc.
Palo Alto, CA

SmoothShapes, Inc.
Merrimack, NH

Southern California Biomedical Council
Los Angeles, CA

StemCells, Inc.
Palo Alto, CA

Symyx Technologies, Inc.
Sunnyvale, CA

Tech Council of Maryland/MdBio
Rockville, MD

Tennessee Biotechnology Association
Nashville, TN

Tessera
San Jose, CA

Texas Healthcare and Bioscience Institute
Austin, TX

The University of New Hampshire
Durham, NH

The University of Utah
Salt Lake City, UT

USGI Medical
San Clemente, CA

Utah Technology Council
Salt Lake City, UT

Vertex Pharmaceuticals Incorporated
Cambridge, MA

Virginia Biotechnology Association
Richmond, VA

VisionCare Ophthalmic Technologies, Inc.
Saratoga, CA

Washington Biotechnology and Biomedical Association
Seattle, WA

Wescor, Inc.
Logan, UT

Wisconsin Alumni Research Foundation
Madison, WI

Wisconsin Biotechnology & Medical Device Association
Madison, WI

GENERAL COUNSEL OF THE
UNITED STATES DEPARTMENT OF COMMERCE
Washington, D.C. 20230

May 18, 2007

The Honorable Patrick J. Leahy
Chairman,
Committee on the Judiciary
United States Senate
Washington, D.C. 20510

The Honorable Arlen Specter
Ranking Member,
Committee on the Judiciary
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman and Senator Specter:

This letter provides the views of the Department of Commerce (DOC) and, in particular, its component the U.S. Patent and Trademark Office (USPTO) on the provisions of S. 1145, the "Patent Reform Act of 2007," as introduced.

This new patent bill is a revised version of legislation considered in the last Congress to modernize the U.S. patent system through changes designed to improve patent quality, reduce patent litigation costs and further international harmonization of patent laws. We support these goals.

INTRODUCTION

The bill includes reform proposals that would directly impact the USPTO. These include provisions on first-inventor-to-file, third-party submissions of prior art and post-grant review of patents. There are also litigation-management provisions relating to assessment of damages, willfulness determinations and venue considerations that do not directly impact USPTO operations, but rather patent policy in general.

There are also certain provisions that, while not currently in the bill as introduced, could usefully modernize the U.S. patent system. In the interests of providing as complete a picture as possible, we are including suggestions that are consistent with the goal of modernization.

In analyzing the provisions of S. 1145, and in suggesting additional items, we consider what will benefit U.S. inventors and the American public. It is from this perspective – benefit to Americans – that we approach our review and make recommendations.

QUALITY IS A SHARED RESPONSIBILITY

The U.S. patent system is predicated on disclosure. It cannot be emphasized enough that the grant of a patent right presumes an exchange of complete openness by the inventor for various rights of exclusivity. Thus, U.S. patent law requires inventors to disclose the "best mode" for reproducing their invention, and to explain their proposal in a manner clear to one skilled in a

particular art. We believe that emphasis on full disclosure – as is required for fair exchanges in all fields of enterprise – will ensure a vibrant, modern patent system.

A corollary of full disclosure must be intolerance for willful suppression or hiding of information. While, of course, fraud cannot be accepted, we also need a system that permits good-faith efforts to provide high quality and complete applications. The challenge for policymaking is to ensure modernization that both eliminates incentives for fraud and promotes full and complete applications.

1. Applicant Quality Submissions (AQSs)

Perhaps the most important element of ensuring that patent examinations are of the highest quality and processed as efficiently as possible is what the applicant files. The patent applicant has the most knowledge, the most opportunity, and the most to gain by providing the USPTO with the best possible information about his or her invention.

In the USPTO's new Accelerated Examination Program – where the first patent was issued in less than six months – applicants participate in an interview and provide the USPTO with a search and a support document. The USPTO's experience with this initiative is that both applicants and examiners realize that more written and oral information from applicants improves quality and timeliness.

The USPTO looks forward to taking the success of this model – captioned "applicant quality submissions" – to lower pendency, raise productivity and increase quality, and apply it to all patent examinations. To that end, the USPTO believes that applicants should be given every opportunity and the responsibility to provide more and better information to examiners about their inventions. For such a program to be successful, the USPTO will ensure that requirements for more and better information do not become overly burdensome in general and in particular to independent inventors and small entities.

We recognize that, in many cases, applicants have expressed strong concerns about providing the USPTO with complete information about their applications. In some cases, applicants simply do not want to provide important information for fear that it will limit the scope of the patent they may receive (though such a limitation would be proper under the facts and the law). Unfortunately, an additional percentage of applicants do not make the effort to fully define their inventions because there is currently no procedural or other deterrent to submitting an ill-defined application.

In some other cases, applicants or their attorneys fear that the legal doctrines of inequitable conduct and unenforceability may unfairly punish them with Draconian penalties for innocently omitting information. The theory is that if one provides information, he or she must do so perfectly or potentially lose the patent or face disciplinary action; whereas, a failure to share any information carries no consequences.

Under existing case law, a court that finds that an applicant has committed inequitable conduct in prosecuting a patent application must find unenforceable all claims of the patent and related

patents, even if they are otherwise valid. Thus, the only remedy available is a complete loss of the patent. Inequitable conduct can be found if the applicant deliberately withholds or inaccurately represents information material to patent prosecution. Anything the court deems that a reasonable examiner would find important can be material and the evidence necessary to show intent varies according to the nature of the omission. Accordingly, the inequitable conduct standard is uncertain and the potential penalties severe. For example, any misstatement in an affidavit, or even a failure to disclose a possible source of bias, has been held to be capable of rendering all claims of the patent unenforceable.

While the risk of an inequitable conduct finding is low, it is alleged relatively frequently and, when alleged, adds substantially to litigation costs and malpractice claims. The "all or nothing" result of an inequitable conduct finding understandably has a perverse effect on the actions of applicants and their attorneys with respect to "risking" a proper search in the first place. As a result, the doctrine drives counterproductive behavior before the USPTO. It discourages many applicants from conducting a search and leading others to be indiscriminate in the information they submit. In a review two years ago, we found that in over one-half of applications either no information disclosure statement was submitted or submissions included more than 20 references.

As we review and evaluate the elements of a successful and efficient AQSs program, we believe there are two related issues that would require legislative action, namely inequitable conduct and the ability of micro-entities to meet new information requirements.

(a) Inequitable Conduct

Consistent with the discussion above, DOC recommends that the bill be amended to address the doctrine of inequitable conduct and unenforceability to ensure that patent applicants are not discouraged from fully and fairly sharing relevant information with the USPTO.

Current uncertainties associated with the doctrine would be significantly reduced by clarifying the appropriate standards. First, the standard for finding intent could be explicitly separated from the materiality of the withholding, requiring proof that the misrepresentation was knowing, with intent to deceive. Second, the doctrine could be changed to a standard requiring a finding that the information would have been relevant to a reasonable examiner. The "relevance" standard could usefully be framed in terms of whether a reasonable examiner would have allowed the patent, without more, but for the misrepresentation or omission.

With respect to materiality, Congress may wish to consider requiring the USPTO to define the term (as it does now) and limit the courts to finding inequitable conduct only in circumstances in which information that the USPTO has defined as material is misrepresented or withheld.

DOC and the USPTO look forward to working with the Committee and stakeholders to develop provisions that would be more effective than the current doctrine in facilitating the targeting of fraud that actually affects the examination process and in improving the quality of applicant submissions.

(b) Micro-Entity Status

We recognize that any AQSs program with requirements for more and better information must not become overly burdensome in general and in particular to independent inventors and small entities.

Accordingly, with respect to truly independent inventors and truly small entities, DOC recommends that the bill be amended to define a "micro-entity" status. The definition could be based on a number of factors including: income level; number of patent applications filed; lack of representation by a registered practitioner; and lack of assignment activity. The status would exempt an applicant from some or all of the requirements of an AQSs program.

That status also could be used to identify inventors eligible for reduced fees and other preferred treatment and assistance.

2. Prior Art Submissions

Section 9(b) of the bill expands the ability of third parties to submit information they believe is pertinent to a pending application. Specifically, the proposal would permit the submission of patents, published applications or other printed publications before the earlier of: (1) the mailing date of a notice of allowance, or (2) either six months after pre-grant publication, or the date of the first rejection of any claim by the examiner, whichever occurs later.

This proposal is consistent with the discussion above regarding AQSs and overall efforts to encourage a highly participatory examination process with more engagement by applicants as well as by other interested parties with information relevant to that examination.

Current USPTO rules permit submission of patents or printed publications within two months of publication or before the mailing of a notice of allowance, whichever occurs first.

In contrast to current USPTO rules, the bill would require that the submission include a "concise description of the asserted relevance of each submitted document." Current USPTO rules do not permit inclusion of comments or explanations concerning the submitted patents or printed publications.

DOC supports enactment of this section, with minor revisions, and anticipates that the provisions will serve to provide our examiners with information they may not otherwise obtain and should result in a more efficient examination process and a higher quality, more reliable patent. We have identified a few technical revisions that should be made prior to enactment and recommend that the provision be accompanied by regulatory authority for the Director of the USPTO to implement procedural requirements to make the submission process as efficient as possible.

Consistent with the provisions and rationale of this section, the USPTO is cooperating in a pilot program involving peer review of patent applications. Up to 250 applications, assigned to Technology Center 2100, which examines computer-related technologies, will voluntarily be placed, by the applicants, on a non-USPTO web site for an expanded and public review by a peer

group of patent users, attorneys and academics. The pilot group of applications will include applications filed by small entity filers. The public group will determine and submit to the USPTO what they consider the best available and relevant prior art. The pilot program will test whether this peer review can effectively identify prior art that might not otherwise be found by our examiners during the typical examination process. We will also make an evaluation as to whether this process results in measurable examination timesavings and quality improvements.

LITIGATION MANAGEMENT ITEMS

The disclosure philosophy has even more relevance to litigation than to examination, as it exposes the economic repercussions of a failure to fully disclose. One of the purposes of the patent system authorized by the Constitution of the United States is to promote the dissemination of knowledge to the public through disclosure of inventions. Requirements for more and better information to support a patentability determination are comparable to current requirements in virtually every judicial and administrative proceeding for parties to bring the most relevant, reliable and complete information before the decision-making body.

We fully appreciate that not all industries are similarly situated, that market conditions change over time, and that practical matters – such as channels of trade – may be legitimate factors for consideration in a patent-infringement case. Therefore, we believe it is critical that litigation-management modernization efforts preserve discretion for courts that enables them to account for differences across industries, markets, and time.

3. Apportionment of Damages

Section 5(a) of the bill, in part, directs the court to ensure that a reasonable royalty is applied only to the economic value attributed to the patented invention as distinguished from the economic value attributable to other features added by the infringer. More specifically, the bill also provides that in order for the entire market rule to apply, the patentee must establish that the patent's specific improvement is the predominant basis for market demand.

Current patent law provides that a patentee is entitled to damages adequate to compensate for infringement, but in no event less than a reasonable royalty. The question of what is the value of a relatively small piece of patented technology when it is integrated as a component of a larger article has attracted substantial attention by the high-tech industry.

Under the entire market rule, the value of the entire apparatus, which includes both patented and other inventions not covered by the patent at issue, is used as the royalty base for computing reasonable royalty.

Concerns have been expressed that patent awards based on the entire market value are overly generous. Legislative proposals have attempted to solve this problem by directing courts to consider the contribution of other elements of the entire product added by the infringer. This is one of several factors, commonly referred to as the *Georgia-Pacific* factors, typically considered by courts in determining royalty rates.

While the appropriateness of damages awards in a number of patent cases may be subject to debate, DOC does not believe that a sufficient case has been made for a legislative provision to codify or emphasize any one or more factors that a court must apply when determining reasonable royalty rates. Further evaluation or research is necessary to determine whether a statutory "entire market rule" may not be readily or appropriately applicable to technology that involves something other than a physical component of a product.

It appears that the courts have adequate guidance through *Georgia-Pacific* and, as a general matter, do in fact consider numerous factors in determining royalty rates, including: rates paid by other licensees; nature and scope of the license; profitability of the product; commercial relationship between the licensee and licensor; as well as the portion of the realized profit attributable to the invention. The amount of a reasonable royalty should turn on the facts of each particular case, as best as those facts can be determined.

4. Willful Infringement

Section 5(a) of the bill, in part, limits a court's ability to award enhanced damages in the following ways: (1) codifies that increased damages are limited to instances of willful infringement; (2) requires a showing that the infringer intentionally copied the patented invention; (3) requires notice of infringement to be sufficiently specific so as to reduce the use of form letters; (4) establishes a good faith belief defense; (5) requires that determinations of willfulness can only be made after a finding of infringement; and (6) requires that determinations of willfulness be made by the judge, not the jury.

Willful patent infringement can certainly have significant consequences. The court may treble the damages and award attorney fees. With escalating patent litigation costs, the threat of treble damages can be quite substantial. Some have expressed concerns that willfulness is frequently alleged as a matter of course and alleged infringers have to bear the expense of defending such actions.

While there is some evidence to support the claim that willfulness is frequently alleged, the evidence also suggests that willfulness is currently difficult to establish. The additional requirements, limitations, and conditions set forth in the bill may significantly reduce the ability of a patentee to obtain treble damages.

Modernization efforts should avoid perverse incentives that might make infringement simply "a cost of doing business." While not the only deterrent to patent infringement, the possibility of treble damages provides an important and substantial obstacle – more than might be seriously considered in a practical business calculus.

For lack of a clear and substantiated case for major statutory reform in this area, DOC is unable to support all the provisions of section 5(a) of the bill as currently drafted. However, DOC can support a number of the narrowly drawn provisions of the section that we believe are appropriate, reasonable and fair to most interested parties.

Accordingly, the Department supports enactment of the amendments contained in section 5(a) that statutorily limit enhanced damages to determinations of willful infringement; require sufficiently specific notices of infringement; and provide that an inference of willfulness can not be drawn from the decision of an infringer not to present evidence of advice of counsel.

5. Prior User Defense

Section 5(b) of the bill expands the prior use defense, created by the American Inventors Protection Act of 1999, by eliminating the limitation that the subject claim be directed to a "method of doing or conducting business." It also enhances the safe harbor for non-patentees in that they would only have to show commercial use, or substantial preparations for commercial use, at any point before the effective filing date of the patent application (rather than that date plus one year).

The benefit of a prior use defense is clearly directed toward the non-patentee. Proponents argue that this is reasonable in a competitive economy and strikes a balance between trade secret and patent protection.

Critics argue that prior user rights undermine the purpose of a patent system by creating a strong incentive to protect innovations as trade secrets. Under a prior use defense regime, if inventors are able to protect their innovations as trade secrets, they are able to use them indefinitely, even if someone else obtains a patent on the invention.

Absent a change to a first-to-file system, DOC does not support the bill's expansion of the prior user defense at this time. The existing defense has rarely been invoked and there is insufficient information to gauge the potential impact of substantially expanding it.

6. Venue

Section 10(a) of the bill limits the places where corporations may be sued by amending 28 U.S.C. § 1400(b) to provide that a corporation "resides" only where it has its principal place of business or in the State in which the corporation is incorporated.

This provision is clearly more restrictive than the current "personal jurisdiction" standard that requires "minimum contacts" for venue purposes and represents a substantial departure from established practice. While this proposal addresses forum shopping concerns expressed by many patent owners, it may not result in the most appropriate and convenient venue for litigation.

Also, the proposal expands the types of actions subject to 28 U.S.C. § 1400(b) which currently is limited to patent infringement actions. The proposal would cover any civil action arising under any federal law relating to patents, other than declaratory judgment and Patent Board decisions.

DOC has not taken a position on the provisions of this section. We will review and evaluate the proposal, along with possible alternatives, in consultation with the Department of Justice.

APPEALS

7. Interlocutory Appeals

Section 10(b) of the bill provides that parties in a patent infringement suit are permitted to have an interlocutory appeal to the Court of Appeals for the Federal Circuit after a *Markman* hearing on claim construction, rather than waiting for a final judgment to be rendered by a district court.

While proponents of this provision maintain that these appeals would reduce the length and cost of litigation, others believe that the appeals may have the opposite effect and would in fact offer "another bite at the apple" because the reversal rate for claim construction is fairly high.

DOC is unable to support this provision at this time. We will consider the merits in consultation with the Department of Justice.

PROPOSALS DIRECTLY AFFECTING THE USPTO

8. Post-Grant Review

Section 6 of the bill establishes post-grant review procedures under which any person may request the USPTO to cancel as unpatentable any claim of a patent: within 12 months after issue or reissue; when the petitioner establishes a substantial reason to believe that the continued existence of the challenged claim causes or is likely to cause the petitioner significant economic harm; or when the petitioner has received notice from the patent holder alleging infringement by the petitioner.

Post-grant review procedures would be more expansive than existing reexamination procedures and would include consideration of evidence gleaned through depositions and interrogatories as well as patents and other documents. A newly designated Patent Trial and Appeal Board would be responsible for conducting the post-grant reviews.

The USPTO Director would prescribe regulations establishing and governing the proceedings including standards for showings of "substantial reason to believe" and "significant economic harm" and procedures for the submission of supplemental information and discovery of relevant evidence. The Director would also establish by regulation reasonable fees to be paid by the person requesting the proceeding.

Final determinations would be issued within one-year with a six-month extension available for good cause shown. Regulations would address sanctions for abuses of the proceedings.

Many aspects of the post-grant review section are similar to those contained in the draft bill prepared by the USPTO in 2005. A primary difference is the scope of the "second window." While the USPTO's proposal would also provide for a one-year first window, it would limit the second window to a six-month period after receipt of a notice from the patent holder alleging infringement. Additionally, the USPTO proposal would authorize the Director to promulgate

regulations that would also require a petitioner to show substantial economic harm. That authority would enable the USPTO to control or limit an influx of potential cases.

A second significant difference is that the bill's applicability reaches back to patents issued before the effective date of the legislation. The USPTO's procedures would be available only on a prospective basis.

The broad scope of the bill's second window coupled with the substantial number of patents subject to the proposed review procedures create very legitimate concerns about the USPTO's ability to effectively handle the potential workload. Accordingly, while the Department supports the establishment of post-grant review procedures, we suggest revision of the bill's provisions to more closely align with those in the USPTO's draft bill. We would be pleased to work with the Committee in that regard.

9. USPTO Regulatory Authority

Section 11 of the bill would specifically authorize the USPTO to promulgate such rules, regulations and orders that the Director determines appropriate to carry out the provisions of Title 35 or any other applicable law or that the Director determines necessary to govern the operation and organization of the USPTO.

We thank Congress for suggesting appropriate authority for the USPTO. The USPTO has long believed that rulemaking authority is beneficial to the patent system, and welcomes authority that is necessary to promulgate regulations to ensure an efficient and quality-based patent examination process. We have concerns about unbounded discretion, and therefore want to be certain that any grant is not overbroad.

10. First Inventor to File

Section 3 of the bill converts the U.S. patent system from a first-to-invent to a first-inventor-to-file system and makes various conforming amendments. A grace period is provided to promote an inventor's disclosure of the subject matter of the claimed invention without loss of priority. Interference proceedings are replaced with a derivation proceeding to determine whether the applicant with an earlier-filed application is the proper applicant for the claimed invention.

While the rest of the world uses a first-to-file system, the United States continues to award a patent to the first to conceive an invention, provided that all patentability criteria are satisfied. Proponents of first-to-file maintain that it would simplify the patent process, reduce legal costs, improve fairness and enhance the opportunity to make progress toward a more harmonized international patent system.

Opponents of first-to-file are concerned that adoption of first-to-file could promote a rush to the USPTO with hastily prepared disclosure information resulting in a decline in quality. Also, because many independent inventors and small entities lack sufficient resources and expertise, they feel that they would be unlikely to prevail in a "race to the patent office" against large, well-endowed entities.

Conversion to a first-to-file system has been advocated by various interest groups in the United States for decades. It is still the subject of continuing controversy. While DOC recognizes the potential benefits of a first-to-file system, we do not support immediate conversion to first-to-file via this legislation.

It should be noted that U.S. conversion to first-to-file is an overriding consideration in ongoing substantive patent law harmonization discussions with foreign patent offices. We hope those discussions will lead to significant benefits for patent applicants and promote work sharing among worldwide patent offices. In this regard, we believe that any U.S. commitment to convert to first-to-file should be contingent on significant progress and international agreement in those harmonization discussions. In particular, the United States seeks a standardized one-year international grace period to protect American inventors who might disclose their invention prior to filing for a patent.

Additionally, with respect to the specific text of section 3 of the bill, DOC has identified a number of concerns regarding the scope and application of provisions relating to prior art and grace period that may require revision and clarification.

11. Assignee Filing

Section 4 of the bill proposes several changes to current practice regarding who must or may file an oath or declaration in a patent application and the application itself. A person to whom an inventor has assigned or is under an obligation to assign the invention would be able to make an application for a patent. Current practice requires that, as a general matter, applications must be filed by the inventor(s).

DOC and most members of the patent community generally favor simplifying and streamlining patent application procedures and reducing any unnecessary formalities. The proposal is an appropriate step in that direction. While the Department supports adoption of these provisions, we have identified a number of technical issues in the text of section 4 that should be addressed and clarified as the legislative process continues. Those issues relate to specific entitlement to the grace period and national security and transparency considerations.

12. 18-Month Publication

Section 9(a) of the bill eliminates the current opt-out provision for publication of patent applications. Current law permits an applicant to request upon filing that his or her application not be published at 18-months if a certification is made that the invention disclosed in the application has not and will not be the subject of an application filed in another country that requires such publication.

DOC is hesitant to support this provision at this time considering that the current opt-out provision is a result of the careful balancing and sensitive negotiations that took place during the legislative process that led to the enactment of the American Inventors Protection Act of 1999. It addresses the serious concerns expressed then and now by independent inventors and small

entities that large entities and foreign interests may misappropriate their inventions upon disclosure and prior to issuance of a patent.

CONCLUSION

Thank you for this opportunity to share our views on this important piece of legislation. DOC looks forward to working with the Committee and the Congress to develop legislation that improves our patent system, while maintaining the balance among the interests of patent applicants, relevant third parties, the general public, and the information needs of the USPTO to serve all three. The Office of Management and Budget has advised that there is no objection to the transmittal of these views from the standpoint of the Administration's program. If you have any questions, please contact me or Nat Wienecke, Assistant Secretary for Legislative and Intergovernmental Affairs, at 202-482-3663.

Sincerely,

John J. Sullivan

cc: All Members of the Senate Judiciary Committee

Testimony of Mary E. Doyle

Senior Vice President and General Counsel

Palm, Inc.

Sunnyvale, California

before the

Senate Committee on the Judiciary

regarding

"Patent Reform: The Future of American Innovation"

June 6, 2007

Chairman Leahy, Senator Specter and Members of the Committee, my name is Mary Doyle and I am Senior Vice-President and General Counsel of Palm, Inc., headquartered in Sunnyvale, California. I thank the Committee for the opportunity to testify on behalf of Palm and as a member of the Coalition for Patent Fairness in support of the "Patent Reform Act of 2007." We believe this legislation will greatly enhance the ability of Palm and other companies like ours to innovate and to compete globally.

It has been nearly ten years since Congress passed the Intellectual Property and Communications Omnibus Reform Act of 1999. That act addressed inequities in the United States patent system by implementing several reforms, among them, mandatory publication of patent applications after eighteen months and increased third party participation in reexamination proceedings. The only other significant patent reform effort in recent decades resulted in the passage of the Hatch-Waxman Act of 1984, subsequently amended, which addressed issues of concern to the pharmaceutical industry. Despite revolutionary developments in technology and the emergence of global markets, however, the patent statutes have otherwise remained largely untouched since 1952 – and the patent damages statute since 1946.

Palm and many others believe it is time to take stock of the U.S. patent system once again, and to ensure that it is working in a fair and balanced way for American innovators across all industries. In our view, the provisions of S.1145 accomplish that goal. We commend Chairman Leahy, Senator Hatch and other sponsoring Members of this Committee for developing legislation over the past two Congresses that seeks to reconcile

the interests of all stakeholders in the U.S. patent system to reach a fair and balanced result.

Mr. Chairman, as you requested I will address the issues you have indicated will be a focus of this hearing, but I also would like to share our views on two additional issues – apportionment of damages and limitation of willful infringement claims – both of which Palm and the Coalition for Patent Fairness (Coalition) believe will be essential to any successful effort at patent reform.

Palm and the Coalition support interlocutory appeal to the U.S. Court of Appeals for the Federal Circuit (Federal Circuit) from Markman rulings, and the revision of venue laws to discourage forum shopping, both provided for in S.1145. We also believe the proposed post-grant review procedures are a fair and reasoned response to ongoing problems in the patent system and the historical underinvestment in the work of the U.S. Patent and Trademark Office (PTO). In addition, we strongly support Chairman Leahy's and Senator Hatch's effort to provide guidance to the courts regarding the measure of damages for infringement and to establish a more rigorous legal standard for imposition of triple damages upon a finding of willful infringement.

Before delving into these issues in greater detail, I thought it might be useful to the Committee for me to share something of Palm's everyday experience with the patent system. I hope this brief snapshot will provide the Committee a greater understanding of why Palm and a myriad of other interested parties – ranging from financial services firms

to energy companies to family farmers – are urgently seeking these reforms of the patent law and process.

Palm's Experience

As the head of the legal department for a mobile computing company, I have seen first hand the challenges that have developed under our patent system, and how abuses have exploded. It now takes as long as four years for a patent to issue on an application reflecting today's innovations. The continued backlog of patent applications at the PTO speaks clearly to the need for a renewed commitment of resources to the system we rely on every day to protect our competitive advantage as a nation of innovators. At the same time, the number of patent infringement claims we face as an industry has grown exponentially.

We, like many others, have also been subject to the threat of monumental damages awards -- the likes of which RIM faced in the NTP litigation -- and have agreed to license patents at rates that greatly exaggerate the contribution of the patented invention. Palm and other members of the Coalition attribute this phenomenon in significant part to forum shopping, the disparity among damage measures applied by our country's courts and the low hurdle to imposition of triple damages for willful patent infringement. For these reasons, Palm adds its voice to the call for immediate patent reform.

Palm, Inc. is a $1.6 billion high technology company, founded in 1992 and headquartered in the heart of Silicon Valley. Today, millions of Americans rely on Palm devices,

including Palm® Treo™ smartphones and Palm handheld devices for their daily mobile computing needs. Palm has long looked to the protections afforded by the U.S. patent, trademark and copyright laws to safeguard its substantial investment in intellectual property and to preserve its competitive advantage. Our products are protected by over 250 U.S. patents. We have nearly double that number of patent applications pending and, as we expand our global reach, have continued to accelerate our patent filings worldwide.

Since going public early in 2001, Palm has been subject to an increasing flurry of patent assertions and patent litigation. Of the sixteen lawsuits pending against the company during this period, all but three were launched by licensing companies; and, though Palm's principal place of business is in California and its state of incorporation is Delaware, none of these cases was first filed in California, only four were first filed in Delaware, and six (all in the last two years) were brought first in what are referred to as "magnet jurisdictions."

Palm has been successful to date in resolving all matters before trial, either upon summary judgment or through settlement negotiations. That's the good news. The bad news, however, is that these results come at the expense of Palm's investment in its business, where with each $1M spent on litigation we could instead employ as many as ten entry level software engineers for a year.

The cost of patent litigation today is many times that of other intellectual property litigation with similar amounts at risk, such as copyright litigation. Reportedly, the

median cost of defending a major patent case is approximately $4.5 million.[1] In Palm's experience, multi-defendant patent litigation may cost each defendant (and particularly the relatively smaller defendants) less, but single defendant litigation, particularly cases that have been appealed multiple times to the Federal Circuit, can cost more than double the reported average without ever reaching trial.

We also face the prospect of much larger damage awards than in previous years. For example, prior to 1990 there had been only one patent damage award in history larger than $100 million; but between 1990 and 1999, there were thirteen such awards. And that trend has continued with 21 such awards between 2000 and 2005, including one recent astronomic damages award against Microsoft of $1.52 billion.[2]

The settlement calculus derived from the high cost of litigation and the risk of an unprecedented damages award, not to mention an award of triple damages, is clearly weighted in favor of the patent holder. It should not be surprising, then, that an industry of patent speculators has grown up almost overnight.

Palm also routinely receives patent assertions, generally delivered in the guise of "invitations to license." Vaguely worded and generally unsubstantiated by claim charts or otherwise, these letters by themselves may expose the recipient to triple damages for

---

[1] American Intellectual Property Law Association, *Report of the Economic Survey,* at 23 (2005) (median cost for cases with more than $25 million at issue).

[2] William O. Kerr and Gauri Prakash-Canjels, *Patent Damages and Royalty Awards: The Convergence of Economics and Law,* in les Nouvelles, June, 2003, at 83; Internet Patent News Service & Source Translation and Optimization Co., Table of Patent/copyright infringement lawsuits/licensing awards, at http://www.iplaw-quality.com/economic/awards.htm.

willful patent infringement. Invitations to license may in some cases be coupled with what we call the "thwack" factor, named for the sound a large stack of patents makes when it hits the negotiations table. The "thwack" factor is credited with discouraging the recipient of a letter from undertaking the not insubstantial cost to do an initial infringement and invalidity analysis, all because, once one patent is knocked out of contention, another patent lines up to take its place.

Often, the offer to license is phrased in terms of a percentage royalty based on the *total selling price* of Palm products, even when the scope of the patent or patents extends to only a relatively insignificant feature of the device. The risk of triple damages, the "thwack" factor and uncertainty as to the measure of damages that a court will apply often convinces many a recipient to achieve the best settlement it can under the circumstances and avoid the cost and aggravation of litigation. While we and many others successfully navigate these waters daily, there is no question that the license fees paid to patent owners big and small, powerful and emerging, with products or without, is unjustifiably inflated to reward not the innovator, but the litigator who takes maximum advantage of the current inequities in our patent system.

Here is one recent example. Last year we were approached by a patent aggregator with an offer to license a number of patents it contended implicated a component in our products. This component was available from a number of suppliers, all with significant financial resources, who are in a far better position than Palm to understand the merits of the patent infringement claims, and to determine the validity of the patents involved.

Still, the aggregator chose to approach Palm and other system vendors. In the course of our discussions, we learned that the aggregator had sued to enforce its patents in a magnet jurisdiction. Our further discussions await the resolution of that litigation, but this much is clear: We have been approached rather than our supplier because the aggregator believes it can attach a royalty, not just to the value of the allegedly infringing component, but to Palm's entire product offering. In the eyes of a licensing entity, this gaming behavior is likely perceived as entirely rational in a world where there are few checks and balances on launching speculative claims, demanding high ransom settlements, or threatening legal actions in preferred jurisdictions where it is difficult if not impossible to predict the measure of damages that will be applied. But to an outsider, this behavior is non-intuitive, unfair to both the system vendor and the supplier, and an example of how an unbalanced patent system can distort the market in ways not anticipated or intended by the American patent laws.

Key Issues

Turning next to a discussion of each proposed reform, we will share our thoughts concerning venue, interlocutory appeals from Markman rulings and the structure of post-grant review. We will also discuss two other reforms that we together with the Coalition for Patent Reform strongly favor – apportionment of damages and limiting claims of willful infringement.

As a preliminary matter, I would first like to emphasize our belief that S. 1145 would improve patent quality and restore fairness and balance to the way patent disputes are resolved in our courts. I should add that it does all this while maintaining patentees'

rights and their ability to derive meaningful economic value from their intellectual property. Nothing in the bill would prevent patent holders from having their day in court and obtaining reasonable royalties from those that would infringe on their patents.

Markman Hearings

We strongly support the efforts in S.1145 to provide for interlocutory appeal of a Markman claim construction ruling to the Federal Circuit. Claim construction is a fundamental predicate to the dispute; it goes to the heart of the legal sufficiency of any patent infringement case. Not until a patent claim is construed is it possible to establish whether infringement has occurred, whether the patent is invalid and whether it makes more sense to pursue litigation or settle the case. This foundational claim construction process, if conducted early in the litigation, also considerably narrows discovery, motion practice and the related expense. In short, claim construction affects all aspects of the case.

Currently, there is wide variation among courts in the scheduling of Markman hearings. In many cases, an accused infringer can wait for two years or more from the start of litigation just to learn the court's interpretation of the patented claims. Yet, even then, there is often no final resolution because claim construction rulings are so frequently reversed by the Federal Circuit.

Let me offer a case in point. Palm recently prevailed in a piece of litigation in which the patent holder sought a clam interpretation that would include a Palm device, such as a

Treo smartphone, within the meaning of the word "card." The district court construed the claim favorably to Palm, and then granted Palm's subsequent motion for summary judgment. On the patent holder's appeal to the Federal Circuit, the district court's claim construction was reversed. On remand, the trial court conducted a second Markman hearing, once again construing the word "card," this time in conformity with the decision of the Federal Circuit, but again to Palm's advantage. Summary judgment was granted to Palm a second time, and was sustained on the second appeal to the Federal Circuit. There is now no question that Palm's devices are not "cards." The cost of this litigation and two trips to the Federal Circuit? $3.5M.

This litigation and many others like it would be far less costly if an interlocutory appeal from the Markman ruling were permissible.

Venue

Most on this Committee are doubtless familiar with traditional notions of federal jurisdiction and venue. Generally, venue addresses the question of which among the federal courts with subject matter and personal jurisdiction is most convenient for the conduct of a case.

The current law on venue in patent cases provides that venue is proper either where the defendant resides or where the defendant has committed acts of infringement and has a regular place of business. However, when the definition of the word "resides" as applied to venue for corporate defendants was amended by the Congress in 1988, a corporation

was presumed to reside wherever it was subject to personal jurisdiction. As a result, virtually any company whose products are sold nationwide is subject to patent litigation in any jurisdiction in the country.[3]

Liberalization of the venue statute imposes a costly burden on businesses like ours that must collect evidence and witnesses and travel to remote jurisdictions to try complex patent cases over a period of weeks or months. It is also apparent to us that this change in the statute worked a perverse mischief, encouraging forum shopping. If patent holders may bring suit anywhere in the country, courts with speedy dockets or famously generous verdicts will almost certainly attract their attention. It is no wonder that "magnet jurisdictions" arise.

We believe, consistent with traditional venue concepts, that a lawsuit should be resolved in a forum that has a real and meaningful connection to the underlying claim and the parties, and that venue standards should preclude "gaming the system." One way to achieve this objective is to further refine the language in S.1145 to ensure that claims are heard in a location that has tangible nexus, either to the defendant's headquarters or to a place it conducts significant operations. Such a change will discourage forum shopping and the resulting inconsistencies in jurisprudence.

---

[3] *Improving Federal Court Adjudication of Patent Cases: Hearings Before the Subcomm. On Courts, the Internet and Intellectual Property*, 109th Congress (Oct. 6, 2005) (testimony of Kimberly A. Moore, Prof. of Law, George Mason University School of Law), at 6.

Post-Grant Review Procedures

Under current law, a patent may be challenged in a number of ways at any time during the life of the patent: through a court proceeding, such as a declaratory judgment action, or through an *inter partes* or *ex parte* reexamination. The notion that a patent now enjoys "quiet title" and that a post-grant system with a second window would be unprecedented, is simply incorrect. Furthermore, effective post-issuance administrative review procedures are widely available in other countries.

The proposed post-grant review process in S. 1145 is an evolution of the *inter partes* procedure that has been in place for years. The principal differences between the proposed post-grant review process and the current reexamination process are the greater availability of limited discovery, the narrower scope of estoppel, the assignment of an administrative law judge to preside over post-grant reviews rather than a patent examiner and the ability to base a challenge on evidence that is not in the form of an issued patent or printed publication. While these differences are not trivial, it is clear that the changes would merely alter the existing reexamination procedures to allow for a more meaningful review.

The proposed post-grant review process should lead to better patent quality, which will benefit everyone – patent holders, patent users and consumers. Allowing third parties to institute an administrative proceeding early in the process should also solidify the breadth and applicability of these patents, thereby leading to fewer later challenges. I am also optimistic that the post-grant review will ultimately reduce litigation costs.

For many companies whose products include hundreds, if not thousands of different technologies, a single review process immediately after a patent has issued, is not sufficient. First, the review of even a single patent, let alone all those that might be brought to bear on an integrated product such as a Palm device, is impracticable both from a cost perspective and from an engineering resource perspective. Second, companies often cannot anticipate, at the time a patent is issued, all of the ways that the patent may be interpreted by the patent holder or the courts. In fact, with over 180,000 patents being issued annually in the U.S., patent users often are unaware of an alleged infringement until the patent holder, who has more visibility into the meets and bounds of its patent, threatens a company with court action. For these reasons, Palm and the Coalition favor the proposed "second window."

Apportionment

The complexity and the level of innovation necessary to today's technology products is stunning. For example, there are more than 400 patents that have been claimed to be essential to producing a DVD, tens of thousands of patents that may relate to a single microprocessor and perhaps hundreds of thousands of patents that may relate to a personal computer. In addition, multiple technologies that once may have been incorporated individually into dedicated devices such as televisions, telephones, cameras or music players, are now found on a single integrated device. For example, in March 1996, the original Palm Pilot 1000 personal digital assistant offered four simple features: an electronic address book, calendar, to-do list and note pad. Today, Palm's latest mobile computing device includes not only these four features, but dozens of others

including telephony, photography, videography, web browsing, email, text messaging, document processing, and so on.

Despite the increasing complexity of technology products, the courts have strayed from apportionment analyses sanctioned in U.S. Supreme Court cases dating back to the 1850s, often embracing instead the "Entire Market Value Rule," which allows a patent holder to recover a reasonable royalty based on the economic value attributable to an entire product rather than the allegedly infringing component, feature or function. Courts have chosen in recent years to apply the Entire Market Value Rule in entirely dissimilar situations, leaving the likely measure of damages applicable in any given case open to anyone's guess.

Not surprisingly, confusion regarding the applicable measure of damages can increase by orders of magnitude the damages a patent holder may legitimately seek, providing tremendous incentive to file infringement actions with respect to any aspect of a complex product, no matter how insignificant the contribution of the patented invention. The amount of money potentially at stake in the litigation as a result of this confusion can and does impose huge settlement pressure on defendants, regardless of the strength of the infringement claim.

We believe that the measure of patent damages should consistently reflect the original purpose of a reasonable royalty award, namely, to provide the patent holder with a portion of the profit attributable to the patent as compensation for use of the patented

invention, while leaving the infringer with a portion of that profit in return for its business risk, labor and investment,[4] just as royalties reached in real-life negotiations do. Under Federal Circuit precedent, however, the patent holder may receive a royalty far in excess of that contribution, while an infringer need not be left with any profit at all after paying a reasonable royalty.[5] As a result, even where a patent is for a marginal improvement to a product, the reasonable royalty award for infringement can exceed not only the profit attributable to the patented invention but the profit on the *entire* product.[6] Such awards fly in the face of the bedrock principle that the purpose of patent damages is to compensate, not to punish.[7]

The language proposed in S. 1145 would help limit excessive royalty awards and bring them back into line with historical patent law and economic reality. By requiring the court to determine as a preliminary matter the "economic value properly attributable to the patent's specific contribution over the prior art", S.1145 will ensure that only the infringer's gain attributable to the claimed invention's contribution over the prior art will be subject to a reasonable royalty. The portion of that gain due to the patent holder in the

---

[4] *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1122 (S.D.N.Y. 1970) ("[T]he very definition of a reasonable royalty assumes that, after payment, the infringer will be left with a profit.").

[5] *See, e.g., Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004) ("[A]lthough an infringer's anticipated profit from use of the patented invention is among the factors to be considered in determining a reasonable royalty, . . . the law does not require that an infringer be permitted to make a profit." (citation omitted))

[6] *See,* The Patent Reform Act of 2007, Hearing on H.R. 1908 Before the Subcommittee on Courts, the Internet, and Intellectual Property, 110th Cong. (statement of John R. Thomas, Professor of Law, Georgetown University Law Center at 3-5) (April 26, 2007) (discussing ten examples in which excessive royalty awards have been granted).

[7] *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1223 (Fed. Cir. 1995) ("[T]he purpose of compensatory damages is not to punish the infringer, but to make the patentee whole.").

form of a reasonable royalty can then be determined by reference to other relevant factors.

Palm also supports codification of the "Entire Market Value Rule" in this legislation, ensuring that the courts will continue to assess damages based on the "entire value" of the product in instances where the claimed invention is the predominant basis for consumer demand for the product.

Willful Infringement

The patent law provides that a court may award up to triple damages and attorney's fees if it finds that the defendant has engaged in "willful" infringement. Although the courts have characterized these extra-compensatory damages as a form of punitive damages, the standard applied to determine whether the defendant acted "willfully" is far lower than what is required to impose punitive damages in other contexts – proof of bad faith or egregious conduct is *not* required and a patent holder may prevail simply by showing that "a potential infringer ha[d] actual notice of another's patent rights" and failed to satisfy his "affirmative duty to exercise due care to determine whether or not he is infringing."[8] This standard has the practical effect of shifting the burden of proof to the defendant whenever the patent holder can show that the defendant had notice of the plaintiff's patent, perhaps only by way of a vague and unsubstantiated "offer to license," as I suggested earlier.

[8] *Knorr-Bremse Systeme Fuer Nutzfahrrzeuge Gmbh v. Dana*, 383 F.3d 1337, 1343 (Fed. Cir. 2004) (Dyk, J.,concurring in part and dissenting in part) (citation and internal quotation marks omitted).

The current willfulness standard has several negative effects. To avoid a finding of actual notice of a patent, some companies now instruct their employees to avoid reading patents and patent applications. That is behavior opposite of what the patent system was intended to encourage. The historical success of Silicon Valley is based not only on the creation of revolutionary new products, but also on the evolution of old ideas. Fundamental to the revolution and evolution of innovation is learning from what others have done in the past.

Once a company does learn of the existence of the plaintiff's patent, it may seek to satisfy its duty of care by obtaining an opinion of counsel that the patent is invalid or not infringed by the company, or both. But reliance on that opinion typically triggers a pre-trial disclosure obligation, which in turn may result in a broad waiver of the attorney-client privilege – requiring disclosure of other materials prepared by the defendant's attorneys, even materials relating to the infringement litigation itself. There is little incentive to take this risk.

Given the ease of proving willful infringement, the opportunity to reap windfall triple damages, and the conundrum that a willfulness claim causes for defendants, it is not surprising that such claims are asserted frequently in patent litigation. One study found that they were asserted in more than ***ninety percent*** of all cases.[9] In addition to the ill effects already discussed, these claims provide patent holders with increased leverage

[9] Kimberly A. Moore, *Empirical Statistics on Willful Patent Infringement*, 14 Fed. Cir. B.J. 227, 232 (2004).

in settlement negotiations. Defendants face considerable pressure to settle even unjustified claims because a huge monetary judgment can result from a loss on the merits.

Given these concerns, we applaud the sponsors of S. 1145 for language that will address this inequity and help restore balance to the patent litigation process.

Summary

To summarize, Palm relies on the patent system to protect its key innovations, its design freedom, and its most valuable intellectual property. We believe that Congress should establish a level playing field that provides greater predictability and balance to the patent system for both plaintiffs and defendants in infringement cases, and pledge to continue to work with you, Chairman Leahy and Senator Hatch, and your colleagues, to ensure that the patent system again provides an effective incentive for innovation and promotes American competitiveness around the globe.

I would be happy to address any questions you may have.

STATEMENT OF

JON W. DUDAS

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY
AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE

COMMITTEE ON THE JUDICIARY
United States Senate

"Patent Reform: The Future of American Innovation"

JUNE 6, 2007

INTRODUCTION

Chairman Leahy, Ranking Member Specter, and Members of the Committee:

Thank you for this opportunity to appear before you to discuss the United States Patent and Trademark Office's (USPTO) thoughts and recommendations on patent reform issues and in particular the provisions of S. 1145, the "Patent Reform Act of 2007."

This new patent bill is a revised version of legislation considered in the last Congress to improve patent quality, reduce patent litigation costs and to further international harmonization of patent laws. We support these goals and commend you Mr. Chairman and your colleagues in the Senate and on the House side for introducing this bicameral and bipartisan legislation.

Before I address the provisions in the bill, I want to take this opportunity to thank you Mr. Chairman and the Committee for your help in ensuring that our current fee schedule remains in effect for FY 2007. We look forward to working with you to make that fee schedule permanent.

We are also pleased that the FY 2008 budget request gives the USPTO full access to the $1.9 billion in fees we expect to collect. This is the fourth consecutive year that the President's budget recommends full access to collected fees, and we appreciate the continued Congressional support for that funding level.

Full access to user fees allows the USPTO to continue our successful model of disciplined focus on real measures that enhance quality and increase production, increase hiring and training, promote electronic filing and processing, provide telework

opportunities for our employees and improve intellectual property protection and enforcement domestically and abroad.

PATENT REFORM PROPOSALS

The bill includes reform proposals that would directly impact the USPTO. These include provisions on first-inventor-to-file, third-party submissions of prior art and post-grant review of patents. There are also litigation-management provisions relating to assessment of damages, willfulness determinations and venue considerations that do not directly impact USPTO operations, but rather patent policy in general

There are also certain provisions that, while not currently in the bill as introduced, could usefully modernize the U.S. patent system. In the interests of providing as complete a picture as possible, we are including suggestions that are consistent with the goal of modernization.

In analyzing the provisions of S. 1145, and in suggesting additional items, we consider what will benefit U.S. inventors and the American public. It is from this perspective – benefit to Americans – that we approach our review and make recommendations.

QUALITY IS A SHARED RESPONSIBILITY

The U.S. patent system is predicated on disclosure. It cannot be emphasized enough that the grant of a patent right presumes an exchange of complete openness by the inventor for various rights of exclusivity. Thus, U.S. patent law requires inventors to disclose the "best mode" for reproducing their invention, and to explain their proposal in a manner clear to one skilled in a particular art. We believe that emphasis on full disclosure – as is required for fair exchanges in all fields of enterprise – will ensure a vibrant, modern patent system.

A corollary of full disclosure must be intolerance for willful suppression or hiding of information. While, of course, fraud cannot be accepted, we also need a system that permits good-faith efforts to provide high quality and complete applications. The challenge for policymaking is to ensure modernization that both eliminates incentives for fraud and promotes full and complete applications.

1. Applicant Quality Submissions (AQSs)

Perhaps the most important factor in ensuring high-quality, expeditious examination and processing of patent applications is the application as submitted by the inventor. Patent applicants have the most knowledge, the most opportunity, and the most to gain by providing the USPTO with the best possible information about their inventions.

In the USPTO's new Accelerated Examination Program – where the first patent was issued in less than six months from the date it was filed – applicants participate in an interview and provide the USPTO with a search and a support document. While the AQS

program has only been in place since August 2006, our experience with this initiative has already demonstrated that both applicants and examiners realize that better written and oral information from applicants improves patent-application quality and processing timeliness.

The USPTO looks forward to taking the success of this model – captioned "applicant quality submissions" – to lower pendency, raise productivity and increase quality, and apply it to all patent examinations. To that end, the USPTO believes that applicants should be given every opportunity and the responsibility to provide more and better information to examiners about their inventions. For such a program to be successful, the USPTO will ensure that requirements for more and better information do not become overly burdensome in general and in particular to independent inventors and small entities.

We recognize that, in many cases, applicants have expressed strong concerns about providing the USPTO with complete information about their applications. In some cases, applicants simply do not want to provide important information for fear that it will limit the scope of the patent they may receive (though such a limitation would be proper under the facts and the law). Unfortunately, an additional percentage of applicants do not make the effort to fully define their inventions because there is currently no procedural or other deterrent to submitting an ill-defined application.

In some other cases, applicants or their attorneys fear that the legal doctrines of inequitable conduct and unenforceability may unfairly punish them with draconian penalties for innocently omitting information. The theory is that, if one does provide information, it must be perfect. Otherwise, the consequence may be loss of the patent and/or disciplinary action (for the applicant's attorney). By way of contrast, failure to share or disclose information has absolutely no adverse legal consequence.

Under existing case law, courts must hold all of a patent's claims invalid if they find inequitable conduct in any aspect of prosecuting a patent application – even if the claims are completely valid and/or the inequitable conduct was irrelevant to prosecution of the claims. Thus, the only remedy available is completc loss of the patent. Inequitable conduct can be found if the applicant deliberately withholds or inaccurately represents information material to patent prosecution. Anything the court deems that a reasonable examiner would find important can be material and the evidence necessary to show intent varies according to the nature of the omission. Accordingly, the inequitable conduct standard is uncertain and the potential penalties severe. For example, any misstatement in an affidavit, or even a failure to disclose a possible source of bias, has been held to be capable of rendering all claims of the patent unenforceable.

While the risk of an inequitable conduct finding is low, it is frequently alleged. When alleged, inequitable conduct assertions add substantially to litigation costs and malpractice claims. The "all or nothing" result of an inequitable conduct finding understandably has a perverse effect on the actions of applicants and their attorneys with respect to "risking" a proper search in the first place. As a result, the doctrine results in

counterproductive behavior before the USPTO. It discourages many applicants from conducting a search and leads others to be indiscriminate in the information they submit. In a review two years ago, we found that over 50% of submitted applications contained either no information disclosure statement or that such submissions included more than 20 references.

As we review and evaluate the elements of a successful and efficient AQSs program, we believe there are two related issues that would require legislative action, namely inequitable conduct and the ability of micro-entities to meet new information requirements.

(a) Inequitable Conduct

Consistent with the discussion above, the USPTO recommends that the bill be amended to address the doctrine of inequitable conduct and unenforceability to ensure that patent applicants are not discouraged from fully and fairly sharing relevant information with the USPTO.

Current uncertainties associated with the doctrine would be significantly reduced by clarifying the appropriate standards. First, the standard for finding intent could be explicitly separated from the materiality of the withholding, requiring proof that the misrepresentation was knowing, with intent to deceive. Second, the doctrine could be changed to a standard requiring a finding that the information would have been relevant to a reasonable examiner. The "relevance" standard could usefully be framed in terms of whether a reasonable examiner would have allowed the patent, without more, but for the misrepresentation or omission.

With respect to materiality, Congress may wish to consider requiring the USPTO to define the term (as it does now) and limit the courts to finding inequitable conduct only in circumstances in which information that the USPTO has defined as material is misrepresented or withheld.

The USPTO looks forward to working with the Committee and stakeholders to develop provisions that would be more effective than the current doctrine in facilitating the targeting of fraud that actually affects the examination process and in improving the quality of applicant submissions.

(b) Micro-Entity Status

We recognize that any AQS program - with requirements for more and better information - must not be overly burdensome in general, and must be sensitive to the particular situation of independent inventors and small entities.

Accordingly, the USPTO recommends that the bill be amended to define a "micro-entity" status that would ensure fair access to the patent system for entry-level type inventors. The definition of "micro-entity" could be based on a number of factors including:

income level; number of patent applications filed; lack of representation by a registered practitioner; and lack of assignment activity. The status would exempt an applicant from some or all of the requirements of an AQSs program.

That status also could be used to identify inventors eligible for reduced fees and other treatment and assistance designed to ensure fair access to the patent system.

2. Prior Art Submissions

Section 9(b) of the bill expands the ability of third parties to submit information they believe is pertinent to a pending application. Specifically, the proposal would permit the submission of patents, published applications or other printed publications before the earlier of: (1) the mailing date of a notice of allowance, or (2) either six months after pre-grant publication, or the date of the first rejection of any claim by the examiner, whichever occurs later.

This proposal is consistent with the discussion above regarding AQSs and overall efforts to encourage a highly participatory examination process with more engagement by applicants as well as by other interested parties with information relevant to that examination.

Current USPTO rules permit submission of patents or printed publications within two months of publication or before the mailing of a notice of allowance, whichever occurs first.

In contrast to current USPTO rules, the bill would require that the submission include a "concise description of the asserted relevance of each submitted document." Current USPTO rules do not permit inclusion of comments or explanations concerning the submitted patents or printed publications.

The USPTO supports enactment of this section, with minor revisions, and anticipates that the provisions will serve to provide our examiners with information they may not otherwise obtain and should result in a more efficient examination process and a higher quality, more reliable patent. We have identified a few technical revisions that should be made prior to enactment and recommend that the provision be accompanied by regulatory authority for the Director of the USPTO to implement procedural requirements to make the submission process as efficient as possible.

Consistent with the provisions and rationale of this section, the USPTO is cooperating in a pilot program involving peer review of patent applications. Up to 250 applications, assigned to Technology Center 2100 (which examines computer-related technologies), will voluntarily be placed, by the applicants, on a non-USPTO web site for an expanded and public review by a peer group of patent users, attorneys and academics. The pilot group of applications will include applications filed by small-entity filers. The public group will determine and submit to the USPTO what they consider the best available and relevant prior art. The pilot program will test whether this peer review can effectively

identify prior art that might not otherwise be found by our examiners during the typical examination process. We will also make an evaluation as to whether this process results in measurable examination timesavings and quality improvements.

LITIGATION MANAGEMENT ITEMS

The disclosure philosophy has even more relevance to litigation than to examination, as it exposes the economic repercussions of a failure to fully disclose. One of the purposes of the patent system authorized by the Constitution of the United States is to promote the dissemination of knowledge to the public through disclosure of inventions. Requirements for more and better information to support a patentability determination are comparable to current requirements in virtually every judicial and administrative proceeding for parties to bring the most relevant, reliable and complete information before the decision-making body.

We fully appreciate that not all industries are similarly situated, that market conditions change over time, and that practical matters – such as channels of trade – may be legitimate factors for consideration in a patent-infringement case. Therefore, we believe it is critical that litigation-management modernization efforts preserve discretion for courts that enables them to account for differences across industries, markets, and time.

3. Apportionment of Damages

Section 5(a) of the bill, in part, directs the court to ensure that a reasonable royalty is applied only to the economic value attributed to the patented invention as distinguished from the economic value attributable to other features added by the infringer. More specifically, the bill also provides that in order for the entire market rule to apply, the patentee must establish that the patent's specific improvement is the predominant basis for market demand.

Current patent law provides that a patentee is entitled to damages adequate to compensate for infringement, but in no event less than a reasonable royalty. The question of what is the value of a relatively small piece of patented technology when it is integrated as a component of a larger article has attracted substantial attention by the high-tech industry.

Under the entire market rule, the value of the entire apparatus, which includes both patented and other inventions not covered by the patent at issue, is used as the royalty base for computing reasonable royalty.

Concerns have been expressed that patent awards based on the entire market value are overly generous. Legislative proposals have attempted to solve this problem by directing courts to consider the contribution of other elements of the entire product added by the infringer. This is one of several factors, commonly referred to as the *Georgia-Pacific* factors, typically considered by courts in determining royalty rates.

While the appropriateness of damages awards in a number of patent cases may be subject to debate, the USPTO does not believe that a sufficient case has been made for a legislative provision to codify or emphasize any one or more factors that a court must apply when determining reasonable royalty rates. Further evaluation or research is necessary to determine whether a statutory "entire market rule" may not be readily or appropriately applicable to technology that involves something other than a physical component of a product.

It appears that the courts have adequate guidance through *Georgia-Pacific* and, as a general matter, do in fact consider numerous factors in determining royalty rates, including: rates paid by other licensees; nature and scope of the license; profitability of the product; commercial relationship between the licensee and licensor; as well as the portion of the realized profit attributable to the invention. The amount of a reasonable royalty should turn on the facts of each particular case, as best as those facts can be determined.

4. Willful Infringement

Section 5(a) of the bill, in part, limits a court's ability to award enhanced damages in the following ways: (1) codifies that increased damages are limited to instances of willful infringement; (2) requires a showing that the infringer intentionally copied the patented invention; (3) requires notice of infringement to be sufficiently specific so as to reduce the use of form letters; (4) establishes a good faith belief defense; (5) requires that determinations of willfulness can only be made after a finding of infringement; and (6) requires that determinations of willfulness be made by the judge, not the jury.

Willful patent infringement can certainly have significant consequences. The court may treble the damages and award attorney fees. With escalating patent litigation costs, the threat of treble damages can be quite substantial. Some have expressed concerns that willfulness is frequently alleged as a matter of course and alleged infringers have to bear the expense of defending such actions.

While there is some evidence to support the claim that willfulness is frequently alleged, the evidence also suggests that willfulness is currently difficult to establish. The additional requirements, limitations, and conditions set forth in the bill may significantly reduce the ability of a patentee to obtain treble damages.

Modernization efforts should avoid perverse incentives that might make infringement simply "a cost of doing business." While not the only deterrent to patent infringement, the possibility of treble damages provides an important and substantial obstacle – more than might be seriously considered in a practical business calculus.

For lack of a clear and substantiated case for major statutory reform in this area, the USPTO is unable to support all the provisions of section 5(a) of the bill as currently drafted. However, we can support a number of the narrowly drawn provisions of the section that we believe are appropriate, reasonable and fair to most interested parties.

Accordingly, the USPTO supports enactment of the amendments contained in section 5(a) that statutorily limit enhanced damages to determinations of willful infringement; require sufficiently specific notices of infringement; and provide that an inference of willfulness can not be drawn from the decision of an infringer not to present evidence of advice of counsel.

5. Prior User Defense

Section 5(b) of the bill expands the prior use defense, created by the American Inventors Protection Act of 1999, by eliminating the limitation that the subject claim be directed to a "method of doing or conducting business." It also enhances the safe harbor for non-patentees in that they would only have to show commercial use, or substantial preparations for commercial use, at any point before the effective filing date of the patent application (rather than that date plus one year).

The benefit of a prior use defense is clearly directed toward the non-patentee. Proponents argue that this is reasonable in a competitive economy and strikes a balance between trade secret and patent protection.

Critics argue that prior user rights undermine the purpose of a patent system by creating a strong incentive to protect innovations as trade secrets. Under a prior use defense regime, if inventors are able to protect their innovations as trade secrets, they are able to use them indefinitely, even if someone else obtains a patent on the invention.

Absent a change to a first-to-file system, the USPTO does not support the bill's expansion of the prior user defense at this time. The existing defense has rarely been invoked and there is insufficient information to gauge the potential impact of substantially expanding it.

6. Venue

Section 10(a) of the bill limits the places where corporations may be sued by amending 28 U.S.C. § 1400(b) to provide that a corporation "resides" only where it has its principal place of business or in the State in which the corporation is incorporated.

This provision is clearly more restrictive than the current "personal jurisdiction" standard that requires "minimum contacts" for venue purposes and represents a substantial departure from established practice. While this proposal addresses forum shopping concerns expressed by many patent owners, it may not result in the most appropriate and convenient venue for litigation.

Also, the proposal expands the types of actions subject to 28 U.S.C. § 1400(b) which currently is limited to patent infringement actions. The proposal would cover any civil action arising under any federal law relating to patents, other than declaratory judgment and Patent Board decisions.

The USPTO has not taken a position on the provisions of this section. We will review and evaluate the proposal, along with possible alternatives, in consultation with the Department of Justice.

APPEALS

7. Interlocutory Appeals

Section 10(b) of the bill provides that parties in a patent infringement suit are permitted to have an interlocutory appeal to the Court of Appeals for the Federal Circuit after a *Markman* hearing on claim construction, rather than waiting for a final judgment to be rendered by a district court.

While proponents of this provision maintain that these appeals would reduce the length and cost of litigation, others believe that the appeals may have the opposite effect and would in fact offer "another bite at the apple" because the reversal rate for claim construction is fairly high.

The USPTO is unable to support this provision at this time. We will consider the merits in consultation with the Department of Justice.

PROPOSALS DIRECTLY AFFECTING THE USPTO

8. Post-Grant Review

Section 6 of the bill establishes post-grant review procedures under which any person may request the USPTO to cancel as unpatentable any claim of a patent: within 12 months after issue or reissue; when the petitioner establishes a substantial reason to believe that the continued existence of the challenged claim causes or is likely to cause the petitioner significant economic harm; or when the petitioner has received notice from the patent holder alleging infringement by the petitioner.

Post-grant review procedures would be more expansive than existing reexamination procedures and would include consideration of evidence gleaned through depositions and interrogatories as well as patents and other documents. A newly designated Patent Trial and Appeal Board would be responsible for conducting the post-grant reviews.

The USPTO Director would prescribe regulations establishing and governing the proceedings including standards for showings of "substantial reason to believe" and "significant economic harm" and procedures for the submission of supplemental information and discovery of relevant evidence. The Director would also establish by regulation reasonable fees to be paid by the person requesting the proceeding.

Final determinations would be issued within one-year with a six-month extension available for good cause shown. Regulations would address sanctions for abuses of the proceedings.

Many aspects of the post-grant review section are similar to those contained in the draft bill prepared by the USPTO in 2005. A primary difference is the scope of the "second window." While the USPTO's proposal would also provide for a one-year first window, it would limit the second window to a six-month period after receipt of a notice from the patent holder alleging infringement. Additionally, the USPTO proposal would authorize the Director to promulgate regulations that would also require a petitioner to show substantial economic harm. That authority would enable the USPTO to control or limit an influx of potential cases.

A second significant difference is that the bill's applicability reaches back to patents issued before the effective date of the legislation. The USPTO's procedures would be available only on a prospective basis.

The broad scope of the bill's second window coupled with the substantial number of patents subject to the proposed review procedures create very legitimate concerns about the USPTO's ability to effectively handle the potential workload. Accordingly, while we support the establishment of post-grant review procedures, we suggest revision of the bill's provisions to more closely align with those in the USPTO's draft bill. We would be pleased to work with the Committee in that regard.

9. USPTO Regulatory Authority

Section 11 of the bill would specifically authorize the USPTO to promulgate such rules, regulations and orders that the Director determines appropriate to carry out the provisions of Title 35 or any other applicable law or that the Director determines necessary to govern the operation and organization of the USPTO.

We thank Congress for suggesting appropriate authority for the USPTO. The USPTO has long believed that rulemaking authority is beneficial to the patent system, and welcomes authority that is necessary to promulgate regulations to ensure an efficient and quality-based patent examination process. We have concerns about unbounded discretion, and therefore want to be certain that any grant is not overbroad.

10. First Inventor to File

Section 3 of the bill converts the U.S. patent system from a first-to-invent to a first-inventor-to-file system and makes various conforming amendments. A grace period is provided to promote an inventor's disclosure of the subject matter of the claimed invention without loss of priority. Interference proceedings are replaced with a derivation proceeding to determine whether the applicant with an earlier-filed application is the proper applicant for the claimed invention.

While the rest of the world uses a first-to-file system, the United States continues to award a patent to the first to conceive an invention, provided that all patentability criteria are satisfied. Proponents of first-to-file maintain that it would simplify the patent process, reduce legal costs, improve fairness and enhance the opportunity to make progress toward a more harmonized international patent system.

Opponents of first-to-file are concerned that adoption of first-to-file could promote a rush to the USPTO with hastily prepared disclosure information resulting in a decline in quality. Also, because many independent inventors and small entities lack sufficient resources and expertise, they feel that they would be unlikely to prevail in a "race to the patent office" against large, well-endowed entities.

Conversion to a first-to-file system has been advocated by various interest groups in the United States for decades. It is still the subject of continuing controversy. While the USPTO reeognizes the potential benefits of a first-to-file system, we do not support immediate conversion to first-to-file via this legislation.

It should be noted that U.S. conversion to first-to-file is an overriding consideration in ongoing substantive patent law harmonization discussions with foreign patent offices. We hope those discussions will lead to significant benefits for patent applicants and promote work sharing among worldwide patent offices. In this regard, we believe that any U.S. commitment to convert to first-to-file should be contingent on significant progress and international agreement in those harmonization discussions. In particular, the United States seeks a standardized one-year international grace period to protect American inventors who might disclose their invention prior to filing for a patent.

Additionally, with respect to the specific text of section 3 of the bill, we have identified a number of concerns regarding the scope and application of provisions relating to prior art and grace period that may require revision and clarification.

11. Assignee Filing

Section 4 of the bill proposes several changes to current practice regarding who must or may file an oath or declaration in a patent application and the application itself. A person to whom an inventor has assigned or is under an obligation to assign the invention would be able to make an application for a patent. Current practice requires that, as a general matter, applications must be filed by the inventor(s).

The USPTO and most members of the patent community generally favor simplifying and streamlining patent application procedures and reducing any unnecessary formalities. The proposal is an appropriate step in that direction. While we support adoption of these provisions, we have identified a number of technical issues in the text of section 4 that should be addressed and clarified as the legislative process continues. Those issues relate to specific entitlement to the grace period and national security and transparency considerations.

12. 18-Month Publication

Section 9(a) of the bill eliminates the current opt-out provision for publication of patent applications. Current law permits an applicant to request upon filing that his or her application not be published at 18-months if a certification is made that the invention disclosed in the application has not and will not be the subject of an application filed in another country that requires such publication.

The USPTO is hesitant to support this provision at this time considering that the current opt-out provision is a result of the careful balancing and sensitive negotiations that took place during the legislative process that led to the enactment of the American Inventors Protection Act of 1999. It addresses the serious concerns expressed then and now by independent inventors and small entities that large entities and foreign interests may misappropriate their inventions upon disclosure and prior to issuance of a patent.

CONCLUSION

Thank you for this opportunity to share our views on this important piece of legislation. We look forward to working with the Committee to develop legislation that improves our patent system, while maintaining the balance among the interests of patent applicants, relevant third parties, the general public, and the information needs of the USPTO to serve all three.

Statement of Senator Leahy
Chairman, Senate Judiciary Committee
Hearing on "Patent Reform: The Future of American Innovation"
June 6, 2007

On April 18th, we took a momentous step toward ensuring America's continued leadership in innovation and production: on a bipartisan and bicameral basis, we introduced the Patent Reform Act of 2007. We left partisanship at the door and simply focused on the promotion of American innovation and ingenuity. I thank Senator Hatch, with whom I have worked on patent issues for many years. Indeed, our work together spans more than a decade; our last major patent bill was the American Inventors Act, which we began in 1997 and passed in 1999. I thank the other cosponsors of this bill as well, including Senators Cornyn, Schumer, and Whitehouse, who also serve on this Committee.

The issues we are discussing here rated a front page story in the Wall Street Journal today, which noted that the Supreme Court has "underscored the patent system's disrepair in a series of rulings rejecting the way lower courts have been interpreting existing law. The justices have declared, in effect, that the patent system, as it has developed through the courts, has deviated from the balance Congress set a half-century ago between promoting innovation and spreading the fruits of progress." In this, the Court is exactly right.

Over the years, our patent laws have served our inventors and our economy well, but they were crafted for a different time when smokestacks, rather than microchips, were the emblems of industry. It is far past time to update our laws for the 21st Century and the future of American innovation. We have spent several years working on just such legislation. Last year, Senator Hatch and I introduced S. 3818, which I said at the time was the first step down a road to real, constructive patent reform. Since that bill was introduced, we have spoken with all manner of interested parties and incorporated many of their suggestions into this year's bill, S. 1145, the Patent Reform Act of 2007.

We are working to refine – and to finish – this bill. We continue our collective effort to select just the right words to convey our agreed-upon meanings. Today, we focus on our overall effort but also on specific aspects of the bill on which we have asked a distinguished group of witnesses to share with us their views on the structure of post-grant review, venue, and interlocutory appeal of so-called Markman hearings.

We have already come a long way in each of these areas, and we have made important modifications from last year to address concerns that were raised. I am hoping that we will make further progress, so that we are all well-prepared for our final drafting efforts, and then for marking up the bill in the Judiciary Committee. As we move ever closer toward the finish line to enact legislation that will create the landscape necessary that American innovators need to flourish, we are focusing our debate on the specifics. These matters may seem dry but they are important to getting our work done and done right in order to enact meaningful reform.

I look forward to the testimony of our witnesses today, and appreciate the expertise they bring to bear on these important issues.

United States Court of Appeals
for the Federal Circuit

717 Madison Place, N.W.
Washington, D.C. 20439

CHAMBERS OF
CHIEF JUDGE PAUL R. MICHEL

May 3, 2007

The Honorable Patrick Leahy
433 Russell Senate Office Building
United States Senate
Washington, DC 20510
By Fax: 202-224-9516

The Honorable Orrin G. Hatch
104 Hart Senate Office Building
United States Senate
Washington, DC 20510
By Fax: 202-228-1178

Dear Senators Leahy and Hatch:

Regarding patent reform legislation recently introduced and pending before the Judiciary Committee, I believe I should bring to your attention concerns with two provisions from the standpoint of whether, if enacted, they could be effectively and efficiently administered by the courts, particularly the Federal Circuit.

First, the provision making claim construction rulings immediately appealable will likely increase filings in this court, as I previously advised. One empirical study suggests that the annual filings, now at about 500, would double. If so, substantial additional delays in deciding patent and all other appeals would ensue. The appeals in patent cases presently take almost a year to resolve; because of the impact of additional filings, the delay could easily approach two years. Meanwhile, the bill commands that all further proceedings in the trial court are frozen. Trial court delays in patent cases are already typically two-to-three years. The new provision could double that delay.

Furthermore, initial claim construction rulings are subject to change during summary judgment proceedings or trials as more information is provided to the court and dispositive issues are clarified. Such rulings, because they come so early in the litigation, construe large numbers of claim terms that ultimately turn out not to control the outcome. Therefore, providing immediate appellate review is very inefficient. Presently, when a construction does control the outcome, summary judgment is granted and is immediately appealable under current law as a matter of right. Indeed, the majority of our patent appeals from district courts are not from final judgments after trial, but from grants of summary judgment based on claim construction. It is difficult to see serious deficiencies in current law and practice, particularly when both sides file summary judgment motions, as is the norm, because even if one summary judgment motion is denied (not immediately appealable), the other is granted and is immediately appealable.

Second, the provision on apportioning damages would require courts to adjudicate the economic value of the entire prior art, the asserted patent claims, and also all other features of the accused product or process whether or not patented. This is a massive undertaking for which courts are ill-equipped. For one thing, generalist judges lack experience and expertise in making such extensive, complex economic valuations, as do lay jurors. For another, courts would be inundated with massive amounts of data, requiring extra weeks of trial in nearly every case. Resolving the meaning of this novel language could take years, as could the mandating of proper methods. The provision also invites an unseemly battle of "hired-gun" experts opining on the basis of indigestible quantities of economic data. Such an exercise might be successfully executed by an economic institution with massive resources and unlimited time, but hardly seems within the capability of already overburdened district courts. Appellate issue would also proliferate increasing complexity and delays on appeal, not to mention the risk of unsound decisions.

I am unaware of any convincing demonstration of the need for either provision, but even if the Committee ultimately concludes that they would represent an improvement over current patent policies embedded in Title 35 of the United States Code, their practicality seems to me very dubious. That is, the costs in delay and added attorneys fees for the parties and overburden for the courts would seem to outweigh any potential gains. Finally, even if the policy gains were viewed as significant, the courts as presently constituted simply cannot implement the provisions in a careful and timely manner, in my judgment.

Clearly, the bill represents a huge amount of work. It is filled with numerous provisions addressing the Patent and Trademark Office or other institutions. I, of course, express no view as to the practicality of such provisions, just as I express no view of the wisdom of the Markman or apportionment provisions. I expect, however, that the Committee will want to concern itself with the practicality of all the provisions and it is solely to assist in this regard that I provide this letter.

I would of course be pleased to discuss with senators or staff the details supporting the summary views expressed in this brief letter.

Sincerely,

Paul

cc: Senator Arlen Specter (By Fax: 202-228-0608)

United States Court of Appeals
for the Federal Circuit

717 Madison Place, N.W.
Washington, D.C. 20439

CHAMBERS OF
CHIEF JUDGE PAUL R. MICHEL

May 21, 2007

The Honorable John Conyers, Jr.
2426 Rayburn Building
Washington, DC 20515
By Fax: (202) 225-7680

The Honorable Lamar S. Smith
2184 Rayburn Building
Washington, DC 20515
By Fax: (202) 225-8628

Dear Chairman Conyers and Ranking Member Smith,

H.R. 1908 is now before the full Judiciary Committee. I write to advise of the severe impact on both the Federal Circuit and the trial courts of the provisions on apportioning damages and interlocutory appeals.

Section 5 would require the courts to limit damage awards to the specific contribution of novel aspects of the claimed invention over the prior art and to subtract from the reasonable royalty base, "the economic value properly attributable to the prior art and all other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process." In my judgment, this provision would require considerable interpretation that would take years. Meanwhile, confusion and inconsistency would reign, making predictions about damage awards nearly impossible. Settlements would likely decline, while the economic analysis required would greatly lengthen trials and complicate appellate review.

Section 10 would create an immediate right of appeal from any claim construction ruling. An academic study estimates that appeals in patent infringement cases could increase 100% or more. At present, about 450 appeals are filed each year. With this workload, the average time between filing and disposition is about 11 months. If the workload doubles, the delay could approach two years. Such a delay would be extremely harmful to the parties who need prompt resolution of their disputes. Because, in the meantime, proceedings in the trial court must be stayed, delays in concluding trials would also increase greatly.

I urge the committee to delete these provisions as unworkable. In addition to their impact on the parties and the courts, these provisions upset settled law developed over many decades. Even assuming a showing of need, these provisions, in my judgment, are simply beyond the capacity of the courts to implement in a consistent, timely manner.

Sincerely,

Paul R. Michel

cc: Congressman Berman (By Fax: (202) 225-3196)
Congressman Coble (By Fax: (202) 225-8611)

United States Court of Appeals
for the Federal Circuit

717 MADISON PLACE, N.W.
WASHINGTON, D.C. 20439

CHAMBERS OF
CHIEF JUDGE PAUL R. MICHEL

June 7, 2007
By Fax: 202-225-3673

Shanna A. Winters
Rayburn House Office Building
Room B-352
Washington, D.C. 20515

Dear Ms. Winters,

Thank you for your telephone call yesterday afternoon concerning determining damages in patent infringement cases under the reasonable royalty language of the Patent Act. As promised, I have since reviewed some of the Federal Circuit decisions that address aspects of this subject, and I have also identified and attached an article that should help you more than reading individual opinions. Significantly, it was written by a seasoned patent litigator with direct experience in how such damage theories are actually litigated in court. Lawyers employed by particular companies, like most law professors, have little or no experience from that perspective. Mr. Rooklidge, by contrast, has several decades of litigation experience in precisely these types of cases.

His article was written since late April and may be the most current available on the subject. It is certainly clear and comprehensive. In addition, it references some of the testimony before your subcommittee in April, as well as the specific language of the pending bills.

The footnotes cite other useful sources you may wish to consult, including authoritative treatises by practitioner Robert Harmon and Professor Donald Chisum, and several recent articles on the point. They provide further background, which you may find helpful.

If the House Judiciary Committee intends to continue the damages law as currently practiced, after decades of refinement in individual court decisions, it need do nothing. This body of law is highly stable and well understood by litigators as well as judges. If, on the other hand, the Congress wishes to radically change the law, I suggest that a far more carefully-crafted and lengthy provision would be required. Like the body of caselaw, such a provision would need to account for many different types of circumstances, which the present provision does not.

In my opinion, plucking limited language out of the long list of factors summarized in the Georgia Pacific case that may be relevant in various cases is unsatisfactory, particularly when cast as a rigid requirement imposed on the court, and required in every case, rather than an assignment of a burden of proof under a clear standard of proof imposed on the party that should bear that particular burden, and that would only arise in a rare case. As I said, under current caselaw, the burden of apportioning the base for reasonable royalties falls on the infringer, while the burden for application of the Entire Market Value Rule falls on the patentee. In most cases, apportionment is not an issue requiring analysis.

Further, as I also attempted to explain, the present bills require a new, kind of macroeconomic analysis that would be extremely costly and time consuming, far more so than current application of the well-settled apportionment law. Resulting additional court delays would be severe, as would additional attorneys' fees and costs. Many view current delays and costs as intolerable.

In short, the current provision has the following shortcomings. First, it requires a massive damages trial in every case and does so without an assignment of burden of proof on the proper party and articulation of a clear standard of proof associated with that burden. Second, the analysis required is vastly more complicated than that done under current law. Third, the meaning of various phrases in the bills would be litigated for many years creating an intervening period of great uncertainty that would discourage settlements of disputes without litigation or at least prior to lengthy and expensive trials.

I appreciate your call and your effort to better understand the gap between current law and practice, and what the bills would require. I am of course available if you need further assistant in understanding the reality behind my May letter to the Chairman.

Sincerely,

Paul R. Michel

National Association of Manufacturers

Dorothy Coleman
Vice President
Tax and Domestic Economic Policy

May 18, 2007

The Honorable John Conyers
Chairman, Judiciary Committee
U.S. House of Representatives
Washington, DC 20515

The Honorable Lamar Smith
Ranking Members, Judiciary Committee
U.S. House of Representatives
Washington, DC 20515

RE: H.R. 1908, the "Patent Reform Act of 2007."

Dear Chairman Conyers and Representative Smith:

On behalf of the National Association of Manufacturers (NAM)—the nation's largest industrial trade association—thank you for your efforts to reform our nation's patent laws. Manufacturers currently hold 60 percent of patents granted in the United States and NAM members, including companies of all sizes and in every industry sector, have a keen interest in meaningful patent reform. At the same time, we have serious reservations about the Patent Reform Act of 2007 (H.R. 1908) approved May 16th by the House Judiciary Courts, the Internet and Intellectual Property Subcommittee.

In general, NAM members are concerned that H.R. 1908 does not reflect many of the improvements suggested by the National Academies of Sciences and could have a significant, negative impact on research and innovation. In particular, NAM opposes the current provisions in the bill on apportionment of damages, certain elements of the post-grant opposition procedure, and the provision that would give the director of the U.S. Patent and Trademark Office substantive rule-making authority. We also are concerned that the legislation fails to repeal the best mode requirement or address reform of inequitable conduct. Consequently, NAM is opposed to H.R. 1908 in its current form.

We are pleased however, that H.R. 1908 does include several provisions supported by NAM that would help eliminate unnecessary cost and complexity in the U.S. patent system. These include creating a first-inventor-to-file system, expanding the opportunity to submit prior art to patent examiners, limiting willful infringement and extending prior user rights.

Innovation is one of our nation's greatest strengths and a major contributor to our economic growth and industrial competitiveness. A key factor in the success of an innovative economy is a strong intellectual property regime that allows innovators to recoup their risk investments. As H.R. 1908 moves through the process, we strongly urge you to address the issues of concern to the NAM that are outlined above.

NAM members agree on the need for all parties to reach consensus on meaningful patent reform and we believe that H.R. 1908 will provide a vehicle for this agreement. We look forward to working with you and your staff to advance pro-growth, pro-innovation patent legislation. Thank you in advance for considering our request. If you have any questions, please do not hesitate to contact Marc-Anthony Signorino, NAM's Director of Technology Policy, at 202/637-3072 or msignorino@nam.org.

Sincerely,

Dorothy Coleman

cc: Members of the House Judiciary Committee

Opening Statement of Senator Specter, Ranking Member
Senate Judiciary Committee
"Patent Reform: The Future of American Innovation"
June 6, 2007

Thank you Mr. Chairman for holding this hearing. The debate surrounding patent reform is certainly a heated one. Since the introduction of the patent reform bill, I have heard from many of my constituents and interested stakeholders both for and against certain provisions of the bill.

The purpose of the patent system is two-fold. First, it grants inventors a temporary property right in their inventions, allowing the commercialization of ideas. Second, it promotes the disclosure of information, encouraging the innovation of others. Some have stated that the patent system is broken. This is awfully strong language. The patent system isn't broken as much as it hasn't adapted to the state of modern technology. I believe that, if done right, this could be one of the most important issues this Congress to stimulate the American economy.

America is a country that has long valued its inventors. We revere the names of Eli Whitney, Thomas Edison, and Jonas Salk. At the same time, it is the everyday accomplishments of little known inventors who demonstrate the true greatness of the American system. Only in America could inventors like Mr. Leon Abbott of Waverley, Massachusetts support two families through the Great Depression by capitalizing on the value of a single 1932 patent for a window lock. I would like to submit for the record papers regarding Mr. Abbott's invention and would like to call attention to a 1930s news article advertising the invention, which states, "The perfection and sale of this product is entirely under American initiative, and is giving employment and income only to local and American workers." This story of innovation, economic growth and community

benefit is the story of the American patent system and what we are seeking to accomplish with this bill.

The patent system is not broken. However, over the past ten years, technology has advanced at a pace faster than I believe we have seen over the past two centuries. Unfortunately, the reforms to our intellectual property laws have tended to be reactive in nature, having to adapt to a global economy and new technological environment. Considering that Congress hasn't comprehensively reformed the patent laws in over 50 years, I would say that the patent system is working amazingly well. But the time has come to address current inadequacies in the system and to ensure that there is a future to American innovation; to ensure that the current and future Mr. Abbotts may invent and market their inventions.

I look forward to hearing from the witnesses today. I hope that they have come here in the spirit of productive conversation and with an eye to compromise.

* * *

Testimony of. John A. Squires, Esq.
Goldman, Sachs & Co
On behalf of:

The American Bankers Association
The Financial Services Roundtable
And
The Securities Industry and Financial Markets Association

"Patent Reform: The Future of Innovation"

The Senate Committee on the Judiciary
Washington, D.C. 20510
June 6, 2007

Chairman Leahy, Senator Specter and members of the Committee, I am John Squires of Goldman Sachs and I appreciate the opportunity to testify today on the critical importance of S. 1145, "The Patent Reform Act of 2007," to the financial services sector.

I appear before you today as chairman of the Securities Industry and Financial Markets Association (SIFMA) Intellectual Property Subcommittee and am also representing the American Bankers Association (ABA) and The Financial Services Roundtable (FSR).

Our respective industry organizations support S. 1145, "The Patent Reform Act of 2007." The issues addressed in the bill, we believe, are precisely the issues that must be addressed to bring a system out of balance, back into balance. We are grateful for the substantial and thoughtful bipartisan, bicameral work already underway.

Patents are still generally new to our industry, but not for the reason most people think. While many people attribute patenting in the financial services sector to the *State Street Bank* decision in 1998, the truth of the matter is that the modern banking and technology needs and the advent of the Internet participants flattened our world almost overnight. Patents and intellectual property aside, we have had to rethink and re-engineer almost every aspect of how we deliver services, serve our clients and add value to stay competitive in a global marketplace. Be it technology push, or innovation pull, we would be here either way. [1]

While patents in our industry do provide substantial benefits and incentives for financial service firms, particularly where open innovation is concerned or transparency desired the more common experience unfortunately has been that the patent system is a legal system in need of substantial reform.

Patent examination quality issues, predatory patent assertions and litigation abuse have precluded continued progress and efficiencies in bettering the U.S. financial system. A recent study by Harvard Business School shows that the financial services industry is *especially* vulnerable to infringement suits and nuisance claims. The Harvard study found that financial patents are 27 times more likely to be asserted in a lawsuit than non-financial patents, and individuals and other non-practicing entities disproportionately own these litigated financial

[1] John A. Squires and Thomas S. Biemer, *Patent Law 101, Does a Grudging Lundgren Panel Decision Mean the USPTO is Finally Getting the Statutory Subject Matter Question Right?* 46 IDEA 561, 563-566 (2006).

patents.[2] And because patent suits carry the risk of injunction, the delivery of financial services in the U.S. economy is all too easily put at risk. We fear it is only the tip of the iceberg.

To be clear, our industry does not see itself as an "opponent" of sectors or industries who take divergent views on reform. Published accounts are quick to cast the patent debate as a schism between "tech" and drug and biotech companies, with the financial industry shaded towards the tech side of the debate. But the fact is that FSR, SIFMA and ABA-member organizations finance drug companies and biotech companies of all shapes and sizes. Member firms also provide seed and venture capital to independent inventors and start-ups that help bring their visions to fruition.

All industries do not experience the patent-granting and patent litigation system in the same way; we believe that our industry experiences are different from other sectors. So we have engaged and continue to engage on all fronts.

Over the last three years, we have jointly filed amicus briefs to both the Supreme Court and the Federal Circuit on issues of import to our members. In eBay v. MercExchange, we saw the automatic injunction rule create unacceptable operational risks to the financial system. Similarly, we have filed amicus briefs with the Federal Circuit in both *Knorr-Bremse* and in *In re Seagate* concerning willful infringement jurisprudence.

Analogous to an investment portfolio, we view the current patent system as underperforming because it is overweight with an "Industrial Revolution-era" view of the world, and underweight in terms of the robust and complex value drivers of the knowledge economy. The time has come for the patent law portfolio to be rebalanced and we believe the reform bills as introduced will accomplish much of the rebalancing when enacted. To finish my analogy, its time to enable patent law to generate the substantial returns for the U.S economy and American competitiveness that it should.

With respect to patent reform legislation, S. 1145 has several provisions that we strongly support as drafted, and there are others we can support with modifications. For instance, the provisions dealing with damages reform, post-grant review and interlocutory appeal are all necessary to accomplish meaningful patent reform and we support the language in the bill as introduced. However, the provisions clarifying the use of secret prior art, venue, prior user rights and the effective date could be strengthened or improved.

---

[2] "Trolls on State Street?: The Litigation of Financial Patents, 1976-2005." Mr. Josh Lerner. *Harvard Business Journal*

The focus of this hearing is post-grant review, interlocutory appeal and venue so our testimony addresses those issues in order before addressing other issues of equal importance.

Post-grant review (Section 6)

We support strongly the post-grant opposition proceeding in S.1145. The second window is essential to a meaningful, efficient and broadly available reevaluation of suspect patent claims before a firm is forced into prolonged and expensive litigation.

To date, there has been little if any way for industry – any industry for that matter – to practically engage in patent quality. And industry engagement is very important, particularly for the financial service sector; since the Patent and Trademark Office (PTO) has acknowledged that it lacks a suitable prior art database in the area of business methods. While potential troves of prior art may reside within our firms given our industry's historical lack of patenting, there has never been a balanced mechanism for firms to inject prior art into the system to improve patent quality. As a result, quality suffers.[3]

In today's information age, the "wisdom of the crowds" – and the prior art they may have – can and should be available to bolster patent quality. While available in theory, the current reexamination processes have generally proved ineffective and are not widely accessible or used. It is probably fair to say that the inter-partes reexamination process in particular, with its draconian estoppel provisions, has been a failure.

S. 1145 addresses these limitations by providing an opposition process where the challenger can fully participate and rely on any evidence of invalidity that would be available at trial. Equally important, the challenger need only prove invalidity under the more equitable preponderance of evidence standard without the presumption of validity that applies at trial.

More importantly, the bill creates an opportunity to utilize this improved opposition proceeding both during a one-year period after the patent is issued and immediately prior to litigation (the "second window"). Even if it were possible to review all of the relevant patents in the first window, it would be impossible to determine how a patentee might interpret and apply the patent, particularly to an expansive, undifferentiated business process.

[3] See, Squires and Biemer, 46 IDEA at 581-85 (2006).

A second window to oppose, triggered when notice is provided, may be the first and only opportunity for the industry to challenge a patent's validity before the agency best equipped to review the art it has marshaled. Indeed, the second window is the only proposal that addresses this issue and as a practical matter, is the first and only opportunity for financial services firms to ferret out invalid patents before being forced into expensive and prolonged litigation.

Interlocutory appeal (Section 10)

We strongly support language in Section 10 of S. 1145 to create an interlocutory appeal of Markman rulings. Although the proposed language applies the interlocutory appeal only to infringement actions, we favor extending the interlocutory appeal to apply to both infringement actions and declaratory judgments (under 28 U.S.C. 2201).

An interlocutory appeal would help to mitigate the judicial inefficiency that occurs when a full trial is conducted based on an incorrect interpretation of the patent at the district court proceeding and the Court of Appeals for the Federal Circuit (CAFC) modifies or reverses that interpretation and orders a new trial based on that modified interpretation or reversal. The purpose of the Markman ruling is essentially to tell the plaintiff and defendants what the patent means, and as such, the current system is failing litigants. Markman rulings by district courts are being overturned over 35% of the time. The practical effect is that many litigants effectively end up paying the attorney fees and expenses for two trials.

Markman decisions are neither elementary nor run-of-the-mill for most district courts. Many patent cases balance on the highly technical elements of science and patent law. Further, many district court judges see only a handful of patent cases over the course of their entire careers. Often, district court judges employ the assistance of Special Masters, and some Members of Congress have suggested that through the assistance of supplemental experts the complexity of patent cases can be conquered. While the Masters do help, they also add a great deal of cost to the case. Further, the Masters may be – and are – reversed just as the district courts are. The need for immediate CAFC intervention is demonstrated when litigants bend procedure like a pretzel to get a timely review of Markman, such as when litigants are willing to stipulate to infringement simply to get claims questions heard by the CAFC.

Three specific concerns have been raised about interlocutory appeal. First, a flood of appeals will result. Second, that the process will delay and unduly lengthen cases. Third and finally, that appeal will give litigants "two bites at the apple". It is important to address those concerns.

We are sensitive to the concerns raised by some that the proposal will increase the number of appeals filed to the Federal Circuit. While some experts have predicted a worst case scenario of a 50% increase, the math behind these predictions seems to indicate a more modest and – given the importance of the issue in deciding the entirety of the case – manageable increase.

The CAFC heard a total of 834 cases in 2006 of which 453 were patent cases.[4] Of those, 259 were adjudicated (57%). A 50% increase would mean an additional 109 cases a year could be attributable to interlocutory appeal. The CAFC's current workload plus those cases is an increase of roughly 12%, and with four three-judge panels hearing cases, the net is an increase of 2 or 3 cases per month, per panel in addition to the roughly 17 cases per month the CAFC currently hears. These numbers do not account for any decrease in caseload resulting from cases that would no longer need an appeal at the end of trial due to IA resolving the issue earlier. Therefore, they are truly a worst case scenario.

Not only is this increase within the 14 percent increase in overall workload the CAFC saw last year, in the context of the other appeals courts, according to GAO, the average caseload per month of the other circuits (including the DC Circuit which hears the fewest) is 47.8 cases per month.

Regarding delay, we believe that the average duration of a district court proceeding is roughly 27 months. The average time to get a decision from the CAFC is 3-6 months (also an estimate), with time to appellate oral argument about 7 months from the final district court judgment. With these numbers in mind, it takes between 37-40 months to get a final determination of what the actually patent means. Allowing the appeal will greatly reduce the amount of time to define the scope of the patent. Once the appeal is ingrained, cases should take even less time. In fact, the mere presence of the interlocutory appeal will likely generate more reasonable settlement requests and an increased number of settlements.

Finally, we agree that provision should not provide litigants with two bites of the apple and agree that legislative language could readily address that threat.

Claims construction is arguably the most important factor in a patent case. It determines the scope of the invention, which relates to both infringement and validity. Under the current system, the CAFC is the final arbiter, and the only court that can provide litigants the certainty and clarity they need to have educated discussions around settlement. The interlocutory appeal proposed in the current

[4] See http://www.fedcir.gov/pdf/ChartAdjudications06.pdf

bill will not only establish greater certainty, it will establish certainty based on the merits of the case and not by exploiting a district court's relative unfamiliarity with patent law or the subject matter.

Venue (Section 10)

A central component in reforming the litigation climate is curtailing forum shopping. Certain jurisdictions have apparently become a magnet for patent cases because of the disproportionately high number of cases decided in favor of patentees. One plaintiff alone filed over 50 infringement suits against financial service firms in the Eastern District of Texas, alleging infringement of patents it holds related to electronic check processing. Indeed, the manner in which commercial banks process checks is all but prescribed by the 2004 "Check 21" law that incentivizes electronic imaging. (Pub. L. No. 108-100, 117 Stat. 1177, codified at 12 U.S.C. sections 5001-5018.) As it stands, the cost of check imaging now includes the additional expense of patent infringement claims.

The proposed language in S. 1145 limits venue to locations where the defendant or plaintiff reside or where the defendant has committed acts of infringement and has a regular and established place of business. The redefinition of "resides" is generally consistent with the pre-1988 standard for patent venue and is limited to a firm's state of incorporation or location of principle place of business. While these changes preclude a patentee from suing a firm in a jurisdiction where neither party has a presence, they do not prevent a patentee from bringing suit in a desired jurisdiction once it has established and been incorporated in that jurisdiction.

The proposed language in S. 1145 is an important step forward. We would however, encourage efforts to strengthen the provision to ensure that financial institutions are not subject to litigation in venues where they have no significant business presence and that the incentive is removed for patent holders to "create" a principle place of business in a jurisdiction in order to sue in a particular judicial district.

It is appropriate to create a test whereby both parties have substantial business nexus in the judicial district or otherwise constrained by this statute. Financial firms do not want to be open to suit in any and all districts due simply to the presence of a branch or an ATM. It is unlikely that the provision, as it is currently constructed, will eliminate blatant forum shopping.

Prior user rights defense

We support the expansion of the prior user rights defense to remove "methods." However, the financial services industry continues to need additional language to ensure that a holding company may confer this defense on affiliates and extend protection to those who had reduced the subject matter to practice at least one year prior to the filing date of the patent.

The defense is a personal defense and applies only to "the person who performed the acts necessary to establish the defense..." Uncertainty about the scope of the term "person" should be remedied to ensure that regulatory requirements do not inadvertently constrain firms' use of the defense. Financial services companies may include multiple lines of business and complex organizational structures imposed for legal/regulatory considerations, but leverage technological and financial infrastructure across the entire organization.

Therefore, we propose the following:

> "The defense under this section may be asserted by a person who performed or caused the performance on its behalf of the acts necessary to establish the defense. Such person may license such defense only to (i) an entity that controls, is controlled by, or is under common control with that person so long as such entity became affiliated with such person in good faith for reasons other than receiving such license, or (ii) an entity providing services to such person or licensed affiliate, solely to the extent such services are provided on behalf of such person or licensed affiliate."

Importantly, the revised language keeps the same "good faith" requirements of the current provision thereby ensuring that one company cannot "buy the defense" by purchasing another company simply to gain access to the defense for itself.

The defense enables an earlier inventor to continue doing what it was doing before an asserted patent was filed, but problematically does not free the earlier inventor to make even obvious modifications to its business practices. In particular, the defense applies only to "subject matter that would otherwise infringe one or more claims... [of] a patent being asserted against a person, if such person had, acting in good faith, actually reduced the subject matter to practice at least one year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date of such patent." The problem is that if the prior inventor had created and commercially used subject matter that was almost the same as that covered by the patent, but was not identical, then the earlier inventor would not be able to use the defense. This

would be the case even where the patented invention was abundantly obvious given the subject matter created by the earlier inventor. Such a result technologically freezes the earlier inventor and prevents it from using obvious variations of its earlier business practices. This does not logically make sense.

We support revising section 273 to essentially incorporate the obviousness standard of 35 USC § 103 in determining the scope of an earlier inventor defense under section 273. In particular, the defense would be available to an earlier inventor if the patent claim "would be invalid under section 102 or 103 of this title if such subject matter is deemed to be prior art." We believe such an amendment reflects a balanced approach that protects patent owners and enables earlier inventors to continue to use both what they had previously commercially used (i.e., subject matter that has been "actually reduced to practice and commercially used, or substantial preparations for commercial use have been made, before the effective filing date of such patent") as well as all that would have been obvious there from.

Willfulness (Section 5)

We support the language in S. 1145 on willfulness because it provides a critical clarification to the damages rules related to the all-too-prevalent imposition of treble damages when willfulness is found. In our view, the bill strikes the right balance to punish copyists, but encourage good faith due diligence and investigation – certainly a desirable practice for an industry new to patents.

In patent law, infringement can be found even if there is no intent on the part of the defendant to infringe. However, the current status of the law has set the bar so low for notice that claims of willful infringement are standard in infringement complaints and defendants can be heavily penalized for vague and non-specific knowledge of the patent.

Some patent holders take advantage of this uncertainty by blanketing an industry with vague letters that offer a license or make outright accusations of infringement. These letters often do not list which products or services that the patent may apply to and in some cases do not even list the patent numbers relevant to the situation. A recipient of this type of letter must scramble to try to determine not only which of the potentially hundreds of products, services and processes the letter implicates, but also every possible interpretation of the claims a patentee may have. Even if a recipient does the investigation and returns with a theory of non-infringement, the patent holder can just shift the focus of the inquiry, starting the process all over again. These investigations are time consuming and

expensive, requiring outside counsel opinions, and escalate other business costs such as delayed product launches.

Aside from the high cost of investigation, the low notice requirements have encouraged a head in the sand attitude for many businesses. Instead of doing patent studies for new product launches, some businesses worry that mere inquiry to the existence of a patent will trigger a notice provision, and therefore do not study the existing patents in the relevant fields. Some worry whether reading articles about issued patents trigger the notice provision. None of these situations promotes a healthy patent system, and none were the intended consequences of the concept of willfulness that sought to single out the worst infringers.

A codified standard with fair and meaningful notice provisions would restore the balance to the system, reserving the treble penalty to those who were truly intentional in their willfulness and end the unfair treble damage windfalls for mere knowledge of a patent. As such, the financial services industry strongly supports the notice requirements set forth in (b)(2)(A).

Indeed, the FSR and SIFMA have jointly filed amicus briefs at the invitation of the Federal Circuit arguing that the current jurisprudence is out of balance and exactly backwards --imposing an affirmative duty on the defendant and creating liability risk for mere knowledge of another's patent. This chills the ability to even undertake an investigation of a competitor's or third party's patent position.

To combat the problem, SIFMA created and operates a clearinghouse (see, http://www2.sia.com/IP_Warehouse/) to connect interested parties on predatory patent assertions and licensing. Nevertheless, registered members face the additional risk of triggering notice and potentially an affirmative duty to obtain an opinion of counsel under the current rule

We look forward to continued discussion with the Committee and bill sponsors on (b)(2)(B), which allows willful infringement upon a finding of intentional copying. While blatant copying of a patented product with knowledge of the patent should be grounds for willfulness, further clarification is needed to ensure that mere notice of a patent, particularly by individuals not involved in the development of the product at issue, does not constitute intentional copying. If it did, (b)(2)(B) would essentially reinstate the current low notice threshold.

Apportionment (Section 5)

Apportionment reform is needed to rationalize damages awards, which are being inflated by unreasonable calculation methodologies. Complex products in our industry, for example, often rely on numerous features or processes, many of which are unpatented. Even where the patented component is insignificant as compared to many unpatented features, patentees base their damage calculations on the value of an entire end product. This standard defies common sense, distorts incentives and encourages frivolous litigation.

Justice Kennedy gave voice to this concern in his *eBay* case concurrence:

> "[i]n many cases now arising . . . the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases. An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees"

Section 5(a) of the bills addresses this problem by requiring that consideration be given to "the economic value that should be attributed to patent's specific contribution over the prior art," and the terms of non-exclusive marketplace licensing of the invention. We look forward to continued discussion with the Committee and the bill sponsors regarding the "entire market value" rule in (a)(3) to ensure the market value is based overwhelmingly on the patent's specific contribution over the prior art.

Effective Date

S. 1145 is currently drafted to "take effect 12 months after the date of enactment" and applies only to patents "issued on or after that effective date." We believe that Section 13(a) should be amended so that the provisions related to litigation take effect immediately upon enactment. The litigation provisions in Section 5 appropriately are effective immediately. The provisions in Section 10 should take effect immediately as well. Lower courts are able to handle changes in the law, whether by statute or judicial decision, quickly and seamlessly. Courts do not need 12 months to prepare for the proposed modifications Section 10.

Perhaps more importantly, the litigation provisions in this Act and the post-grant review mechanism should apply to patents issued before or after the effective date of this Act. In many instances a plaintiff will assert multiple patents in a single case, some of which may have been issued before and some after the effective date of this Act. If this Act only applies to patents granted after the

effective date, courts could be forced to apply different standards of venue, interlocutory appeal, prior user defenses and damages to different patents-in-suit in the same case. This will dramatically increase the complexity and cost of the cases.

In the chart below, I have provided our views as to how the effective dates should be modified. Again, whether effective immediately or after a grace period, the laws should apply to all non-expired patents and patent applications, not just those filed after the law is enacted.

Section	**Provision**	**Effective Immediately**	**Effective after Grace Period**	**Litigation Reform/Patent Quality**
3	First to File		☑	Patent Quality
4	Inventor's Oath		☑	Patent Quality
6	Post Grant		☑	Patent Quality
7	PTAB changes		☑	Patent Quality
9	3rd Party Submission		☑	Patent Quality
10	Venue	☑		Litigation Reform
10	Interlocutory Appeals	☑		Litigation Reform
11	PTO authority	☑		Litigation Reform

Clarification of Secret Prior Art

S. 1145 departs from the previous refinements to the novelty provision (Section 102) that were set forth in the bills of the 109th Congress. The former bills generally aligned U.S. novelty standards with international patent standards by requiring prior art to be "publicly known," and publicly accessible, whereas S. 1145 uses the language "in public use or on sale" in Section 102(a)(1). We are concerned that the proposed "in public use or on sale" language could be construed in a manner that penalizes or discourages research-and-development collaboration between companies. Courts could potentially hold that patents on prototypes, code or the like from inter-company collaboration are invalid or "on sale", despite an executed arms-length confidentiality agreement between separate companies.

In contrast, in Europe and the U.K. the existence of a confidentiality agreement provides a clear "safe harbor" for such collaboration. Under Article

54(2) of the EPC, "The state of the art shall be held to comprise everything made available to the public by means of a written description or oral description, by use, or in any other way, before the date of filing the European patent application." If we look to section 2(2) of the U.K. Patents Act of 2004, it recites that "[t]he state of the art in the case of an invention shall be taken to comprise all matter...which has at any time before the priority date of that invention been made available to the public... by written or oral description, by use or in any other way." The clear reference to "available to the public" is significant in that it supports the ability of organizations (in Europe) to protect against novelty-destruction by entering into confidentiality agreements incidental to research and development activities. For example, in Europe, a secret sale of an invention (e.g., a prototype) that is subject to a non-disclosure agreement is simply not regarded as prior art. (See, e.g., 1992 O.J.E.P.O. 646, 652.)

Under the proposed bill language, the danger exists that when "company A" contracts or collaborates with "company B" for development, certain development activities such as building prototypes or design models resulting from that collaboration could work against the parties as to later-arising patent rights. An accused infringer under patent rights arising from the development work could argue that the development activities qualify as an invalidating secret offer for sale or sale. (M&R Marking Systems, Inc. v. Top Stamp, Inc., 926 F. Supp. 466, 470-471 (D.N.J. 1996); In Re Kollar, 286 F.3d 1326, 1334 (Fed. Cir. 2002)). Although the patent owner may ultimately prevail on technical arguments under a vague totality of circumstances test, the presence of a binding, air-tight confidentiality agreement is not decisive of the outcome under the totality of the circumstances test. (See, e.g., Netscape Communications Corporation v. Konrad, 295 F.3d 1315 (Fed. Cir. 2002).) This could be an expensive and time consuming loophole that infringement defendants could attack to require patent holders to successfully defend their patent validity, based on an activity- i.e. open innovation and research and development cooperation -- which should otherwise be encouraged. This problem, in our view, would place U.S.-based firms at a disadvantage vis-à-vis global competition.

For these reasons we recommend the following changes to the novelty provision: (1) in Section 102(1)(a), replace "public use or on sale" with "otherwise publicly known" or "otherwise available to the public." The above change to the H.R. 1908/S.1145 will allow organizations to contractually protect against unintentional invalidity of patents by executing a binding non-disclosure agreement with collaborating organizations.

Conclusion

It is time for Congress to act. The litigation around patents is too fervent and the awards and settlements too unbalanced. The Supreme Court of the United States has recognized and written eloquently against abuses, but the Court's recent decisions do not obviate the need for legislation. On the contrary, they suggest a clear need for legislative action.

We support S. 1145 as essential to increase patent quality and restore some balance and fairness to the litigation landscape. We encourage members of the Committee to work with the bill sponsors to report the bill to the full Senate this month so that the Senate can act during this session.

Thank you for the opportunity to testify.

○