STATEMENT OF

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BEFORE THE

HOUSE JUDICIARY SUBCOMMITTEE ON COURTS, THE INTERNET AND INTELLECTUAL PROPERTY

UNITED STATES HOUSE OF REPRESENTATIVES

Mr. Chairman and Members of the Committee:

My name is Gary Mueller, – I am President & Chief Executive Officer of Digital Now, Inc. ("Digital Now") a technology company based in Herndon, Virginia. Thank you for providing the opportunity to express my views on Patent Harmonization. I would also like to thank the Association for Competitive Technology for helping me prepare for this hearing, and for its leadership role on IP issues for small business.

Today I will focus my testimony on two major components of H.R. 2795 ("Patent Reform Act of 2005):

- Changing U.S. law from a *first-to-invent* system to the international standard of *first-inventor-to-file*; and
- Expanding the current requirement that patents be published 18 months after filing, such that it applies to *all* patents.

Digital Now – Its Success and the Role of Patents

Digital Now is a small company – we have only a few employees on staff and a handful of programmers scattered across the country. Despite our size, Digital Now is poised to be an industry leader in digital imaging technology and the Internet-based consumer. I firmly believe that one of the reasons why my small company can compete against larger firms is because of the subject of today's hearing—patents.

My belief in the patent system comes not only from the success of Digital Now, but my own 25 years of experience in leadership positions in the high technology and film industries. At Xerox and Kodak, I saw how important patents were to those large companies – and that patents were the pathway whereby they incorporated innovations created by smaller firms. When I decided to give up the lifestyle of big business and follow my entrepreneurial itch, I took with me the knowledge that patents would be a key part of my future.

Digital Now started in 1996 with the help of private equity funding from a venture capital firm based in Australia. There have since been several iterations of ownership, structure, and even a name change. As the camera and photo processing market has changed dramatically over the past ten years, so too has my company.

In 2000 a significant portion of Digital Now's revenue was hardware. We built scanners for photo finishers that digitized conventional film photos. These scanners were sold to both traditional photofinishers and Internet-based photo sites like Snapfish and Shutterfly. We sold in the US, Europe and Japan. We also helped brick-and-mortar photo processing retailers by hosting a store-branded web presence that allowed their customers to share and store photos online.

Today, Digital Now is mostly a software company. We create software tools to help consumers enjoy a richer online experience with their digital photos. Digital Now is introducing a new suite of services such as MyStorageNow that allow users to remotely store what I like to refer to as "emotional property." Emotional property is that precious collection of personal content we own that transcends its market value: photos, home movies, and important papers. As anyone who watched the tragedy of New Orleans unfold, we know that while protecting life is paramount, the things that make that life a little more special are also worthy of protection from loss and damage. Many of those hit by Katrina lost pictures of their children's birthday parties, first day of school, and weddings. Photos, portraits and videos of our children growing up are irreplaceable.

My company is actively working to make important items like photos, documents, music and movies secure and easily accessible. Consumers will be able to transfer their emotional property to and from my company's secure system, from their camera phones, PDAs, personal computers, and almost any other communications device that can be used to create or display images. Software created by Digital Now will make the manipulation and sharing of photos easier than ever, no matter what cable, internet, or mobile provider you use.

We're able to compete and negotiate with larger industry players, in part because we have protected our innovations with patents. Our first set of patents was for innovations involving film scanners. We developed a unique way to use a tri-color red, green and blue lamp housing in our film scanners to scan and digitize images from film to create index prints.

Going forward, Digital Now will rely more on its most recent patent for automatic image rotation. We have developed a way for software to determine the proper orientation of photos—so that when photographers rotate their cameras ninety degrees to capture greater vertical area, there is no need to manually rotate the image after transferring from camera to computer. We do this using a "*neural net*" to automatically detect the natural orientation of a digital image, and then automatically rotate the image file. The trained neural net is our patented innovation, providing tools and user friendliness that will be a unique service and product differentiator.

Small businesses, such as Digital Now, use patents to extend the return on investments we make in new technologies. Our goal is *not* to put competitors *out* of business, but to bring others *into our* business. We use patents as a tool to attract lenders, investors, and business partners, as well as to help generate capital to fund our next generation of innovations.

Small Businesses Need Harmonization of Patent Law

I have seen the patent system work for small business – and it works for us today at Digital Now. I have also seen the system fail us. Unfortunately, the system is failing small business more and more often – both at home and abroad. I believe that world-wide harmonization of patent laws would benefit American businesses, including small businesses. It will reduce the cost and complexity of obtaining patent protection around the world. I understand that there are some steps that we have to take in the U.S. to achieve world-wide harmonization. We will have to change our patent system to award the first-inventor-to-file, rather than the first to invent. I support that change. I also

support a change to the U.S. patent system that would require publication of all patent applications 18 months after filing.

A patent system that requires applications for the same invention to be researched and re-examined in each country where patent protection is sought makes little sense in today's global marketplace. Instead, a search and examination in one office should be recognized in every other country where an applicant seeks patent protection. The present system – where the process of search and examination has to be repeated in every country – is a waste of time and money. Businesses that pay for the work to be done bear these costs, especially small businesses that have less resources than their larger competitors.

Ideally, small business owners would have a single entry point to the system – in the U.S., the U.S. Patent and Trademark Office (USPTO) – where the required application is filed, searched and examined and then is automatically transmitted to selected foreign offices. I realize that we may still be subject to additional foreign patent fees and perhaps translation costs to local languages. But I would urge you to mandate changes at the international level that take full advantage of modern information technology to hasten the process of international applications and reduce costs (including for substantive searching and examination and translations) for the good of all U.S. businesses.

In a world economy based increasingly on the intellectual content of products and services, intellectual property is the leading edge of the competitive position of U.S. businesses – especially small businesses. It is estimated that 50 percent of U.S. exports

depend on some form of intellectual property protection.[1] In 2005, that means nearly a half-trillion dollars worth of U.S. exports relied on laws that protect intellectual property.[2] A harmonized world-wide patent system will better enable U.S. small businesses to quickly and affordably establish a beach head in foreign countries.

Successful Harmonization Requires Political Leadership

Efforts to harmonize the patent systems of the world have been ongoing for more than 40 years, but with disappointing results. Given the clear benefits that world-wide harmonization brings, this is a world-wide political failure. If we've embarked on a path towards harmonization, then let's start what we finish. In short, we need the courage and political commitment to get the job done. Let me explain my motivation for making that last point.

The Patent Cooperation Treaty ("PCT"), which was proposed by the US in 1966 and concluded in 1970, established a system by which a single application filed in a single language in a single country would translate to multiple patent *applications* in all Treaty member countries (which now number 130). Although the PCT has worked well since its inception, it has a built-in defect. It is only a procedure through which a patent application for an invention is *filed* in a number of countries, but does not avoid the repetition of *searching* and *examining* that application over and over again in each country where patent protection is sought. The irony here is that avoiding repetitive searches and examinations was a prime motivation for the entire Treaty effort. At the start of the PCT process, the Organization that is now the World Intellectual Property

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1 See Senate Report 108-344, FY 2005 Senate Report for Commerce, Justice, and State Appropriations bill

2 See the CIA World Factbook—United States, located at http://www.cia.gov/cia/publications/factbook/geos/us.html

Organization (WIPO) noted the following defects in the then-current world-wide patent system:

> [A]ll countries issuing patents, and particularly the countries having a preliminary novelty examination system, have to deal with very substantial and constantly growing volumes of applications of increasing complexity, that in any one country a considerable number of applications duplicate or substantially duplicate applications concerning the same inventions in other countries thereby increasing further the same volume of applications to be processed, and that a resolution of the difficulties attendant upon duplications in filings and examination would result in more economical, quicker, and more effective protection for inventions throughout the world thus benefiting inventors, the general public and Governments.[3]

WIPO then went on to recommend "that the Director of [WIPO] undertake urgently a study on solutions tending to reduce the duplication of effort both for applicants and national patent offices . . . with a view to making specific recommendations for further action."[4]

The same problem the nations of the world saw in 1966 (duplication of effort to search and examine applications concerning the same inventions in countries where patent protection is sought), leading to the same result (unnecessarily high cost for inventors seeking world-wide protection), and requiring the same solution (world-wide harmonization leading to world-wide recognition of the results of searches and examinations) are all the same today. This is why it is particularly disappointing to me that efforts at world-wide harmonization have failed – including an effort at WIPO that spanned the years 1984 to 1991 and an a more recent effort at that organization that appears unlikely to succeed. The effort that ended in 1991 failed, as I understand it, due

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[3] See BIRPI document CEP/II/12, The Executive Committee of the International (Paris) Union for the Protection of Industrial Property (Second Session, Geneva, September 29, 1966), paragraph 46 (reproduced in the post-Conference documents of the Patent Cooperation Treaty, PCT/PCD/1, October 16, 1970).

[4] *Id.*

to fundamental differences between the U.S. system and that of the rest of the world – based largely on the U.S. system that grants a patent to the first inventor, rather than the first-inventor-to-file a patent application.

I have learned that two U.S. Presidential Commissions recommended the U.S. change its patent system to a first-inventor-to-file system – first in 1966 and again in 1992.[5] However, the U.S. ignored Commission recommendations both times leaving the international efforts without a key element of harmonization. No wonder WIPO couldn't deliver.

If anything, the complexity and cost of the international patent system has grown since PCT efforts began in 1966. The General Accounting Office quantified the costs in a June 2003 study on foreign patent filing for small companies.[6] That study looked at the total costs for filing (including official fees, legal costs, and translations) in six European countries (France, Germany, Italy, Ireland, Sweden, UK) Canada, Japan, and South Korea. The costs were estimated as ranging from $160,000 to $330,000. These costs were estimated in 2003 and were only for nine countries – so they would have to be updated and expanded.

I am not a patent attorney, but I know firsthand how a lack of harmonization can cost small businesses. Because of the cost and complexity, my company decided not to file outside of the United States for one of our hardware patents. A few years later, I was at a major trade show in Germany and saw a competitor openly discussing the use of our

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[5] See, G. Mossinghoff, *Small Entities and the "First to Invent" Patent System: An Empirical Analysis*, Working Paper, Washington Legal Foundation (2005), p. 2 (footnote 3) (hereinafter "Mossinghoff").

[6] See, *International Trade: Experts' Advice for Small Businesses Seeking Foreign Patents*, General Accounting Office Report No. GAO-03-910, June 2003.

patented design in a new product. I discussed the issue with my patent attorney, and he told me I was basically "too late" to get patent protection in Europe. This lack of patent protection cost jobs, and hurt my ability to build the next great product.

Ultimately, the failure of the U.S. to harmonize with the rest of the world limited my company's opportunities around the world. Harmonization might have worked well for my business, but what about others?

First Inventor to File Reform and Harmonization

In order to ensure that efforts at international harmonization of patent systems can succeed, I support the goal of H.R. 2795 to bring the U.S. patent system into alignment with the rest of the world by awarding patents on the basis of the first-inventor-to-file, rather than the current system of first-to-invent.

In a study last year, former USPTO Commissioner Gerald Mossinghoff concluded that small businesses and independent inventors would be better off with a first-inventor-to-file patent system than a first-to-invent system.[7] The current system of resolving conflicts between those claiming to be the first-to-invent in the USPTO – the so-called "interference system" – simply does not provide a net benefit to small entities. My co-panelist, Mr. Robert Armitage, put it well and in the following terms:

> The features of the current law that should in practice impose particular hardships on the least resourceful, least well-financed inventors include the time it takes to make a final determination of which among rival inventors was first to invent. This exercise is typically prolonged – sometimes longer than the technological lifespan of the innovation. It is also enormously expensive. Sorting through an inventor's records for potentially relevant evidence requires experienced patent counsel. It is also incredibly complicated. The United States Patent and Trademark Office proceedings used to determine who invented what first are noted for their arcane, even Byzantine character. At the end of the day the

[7] See, Mossinghoff.

> resolution of the "who invented first" question can cost an inventor hundreds of thousands of dollars (alas, spending *millions* of dollars on this determination is not unknown).[8]

Millions of dollars is more than I can dream of spending on interference proceedings, but for big companies it's just a cost of doing business. Again, small business gets the short end of the stick.

If patent harmonization is so clearly good for so many, why is it so difficult to achieve? There are two reasons that particularly concern small business: the need to front-load spending on ideas that may not succeed; and fear that competitors could steal inventions from published applications.

Small businesses have to deal with hard, bet-the-company issues almost every day – much more often than their larger counterparts. We are often operating in the red in an effort to prove our technology and business models. Consequently, the money we are asked to spend early in the patenting process ($30,000 or more to draft and file an application) is money that would otherwise be used to keep the doors open by paying the rent, utility bills, or make payroll. Often, this is money borrowed from friends and family. To suggest that we should not spend this precious capital on improving our product or services, but spend it on a rush to the patent office is a tough sell indeed.

Practically speaking, changing the U.S. system to first-inventor-to-file would be of net benefit to small businesses. It is far easier to train inventors to file early than to have them keep records accurate enough to fight interference proceedings brought by companies that buy lawyers by the barrel.

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[8] Mossinghoff, p. vii.

18-Month Publication Reform and Harmonization

Small businesses have additional worries about proposed changes to the publication of patent applications – in particular to require the publication of all patent applications 18 months after their filing date.

The current U.S. patent law provides that patent applications are published after 18 months unless an applicant requests non-publication and is not intending to file in another country that has an 18-month publication rule. Requiring publication of all patent applications after 18 months will harmonize U.S. patent law with international standards and further the basic policy reason behind the patent system – to encourage the disclosure of inventions.

However, small businesses fear losing their advantage to competitors – both in the U.S. and abroad – if all patent applications are published. This is a real fear and should not be lightly dismissed as mere ignorance. We need to ensure that as we harmonize the rules for the grant of patents, other countries play by the rules in their enforcement. It is not fair or sustainable over the long haul to disclose inventions in patents only to have them copied with impunity in foreign countries.

Harmonization Increases Patent Quality in the U.S.

This hearing focuses on questions of harmonization, but I would urge the Members of the Committee to seek to improve quality not only after a patent is granted, but before grant. Arguing for changes to U.S. law for the sake of international harmonization alone would be a disservice to U.S. small business. We need three things from the patent system: Quality, Clarity and Speed.

Quality

Much has been said about the failure of the USPTO to grant patents of high quality – I understand this committee has had several hearings on the topic, and the rest of America was recently exposed to the issue when the BlackBerry became a topic of dinnertime conversation.

The recent BlackBerry case illustrates the need for patent quality. Research in Motion was obliged to settle a patent infringement action brought by NTP, Inc. for over $600 million while at the same time the USPTO was reexamining those very patents.[9] Again, I am not a patent attorney and cannot possibly comment on the merits of this or any case, but clearly, the fact that the patent office took more than 3 years to reexamine and reject patents it had granted to fix a quality problem of their own creation points to a serious lack of quality control.

Clarity

Improving the clarity of the patent system and the patents that are granted goes to the core problem facing small business in a harmonized system. Certainly, the early publication of all patent applications at 18 months after the filing date will provide clarity as to the competitive environment in which we operate. In particular, it will inform us as to what are competitors – large or small and at home and abroad – are doing. Moving to a first-inventor-to-file process also would add greater clarity to the U.S. patent system by replacing the Byzantine system of interferences to determine the first inventor with a simpler, more objective test based on the date of application. But most significantly, it

[9] See Y. Nagochi, *BlackBerry Patent Dispute Is Settled*, Washington Post, March 4, 2006, (accessed at http://www.washingtonpost.com/wp-dyn/content/article/2006/03/03/AR2006030301489.html)

will help small business to understand the rules for filing internationally. In today's world, there is an ever shrinking number of "U.S. Only" inventors. To build out businesses and compete effectively, we must explore the world market.

Speed

They say "speed kills" on the highway, well, "pendency kills" on the information superhighway. The longer I have to wait for a patent to be granted, the longer I have to wait for that tool to attract investment and partners. The average length for receiving a patent from the USPTO is 29 months.[10] For software, one of our country's most rapidly changing industries, average pendency is even longer—40 months.[11] My own patent on image rotation took nearly six years.

Pendency of patent applications before the USPTO for three years or more is simply too long. It results in great ideas missing a market opportunity. I have had to abandon patent applications – and, therefore, the business opportunities patents represent – because the market changed and the opportunity to participate and possibly improve the marketplace was lost. In today's fast-paced world, a patent delayed is a potential market denied.

Patent harmonization may even improve pendency. If the USPTO could, for example, accept the results of searches and examinations conducted by the European Patent Office, there would be less work for U.S. patent examiners. PTO resources would be freed up to focus on reducing the backlog of patent applications and pendency.

[10] See http://www.uspto.gov/web/offices/com/advisory/acrobat/ppac_annual_rpt_05.pdf p.18
[11] See http://www.uspto.gov/web/offices/com/annual/2004/060404_table4.html

The U.S. should view harmonization as a way to free up resources that will improve the quality of patents. Small business owners should not give their lives to building up a business only to face the specter of being shut down by a patent of dubious quality.

Government Should Educate Small Businesses about Patents

The only way to overcome the fear of losing your idea is through knowledge. The U.S. Government must be pro-active about informing the small business community regarding the true effects of the proposed changes. For example, we need to better inform small businesses about the innovation cycle and under what circumstances patents are filed and when. It is my experience that small inventors have a tendency to tinker until the product is 'just right'. We need to make sure that small business doesn't end up making the perfect the enemy of the good, and miss the opportunity that patents present.

Conclusion

Patent harmonization requires both procedural and substantive reform efforts. This Committee should urge changes at the international level that will make both the process of filing a patent in multiple countries as easy and inexpensive as possible and the substantive result universal. But first and foremost, our own system is overdue for reform. Awarding a patent on a first-to-file basis promotes international consistency and results in reduced complexity here in the U.S. An 18 month publication rule harmonizes U.S. patent law with international standards and encourages disclosure of inventions. These reforms will help the cause of small business.

But I would urge this Committee to seek more than just legal changes to the U.S. patent system for first-inventor-to-file and 18 month publication. As discussed

previously, the committee must seek to ensure that the small business users of a new system understand the terms and ramifications. Congress and the USPTO must pursue the broad education of both the inventor and venture capital communities. We also need to ensure that protection for patented inventions around the world improves in concert with harmonization.

Mr. Chairman, I know that I speak for the more than 3000 small business members of ACT when I applaud your efforts to improve the patent system in the U.S. We urge you to continue in these efforts – in particular if they will speed patent harmonization at the international level and make the process of seeking and obtaining patent protection world-wide for small businesses. This is not just a narrow financial issue to lower costs. It is a fundamental issue for American business to best take advantage of the strength in innovation of this great country. In 1859, Abraham Lincoln looked at a rapidly-developing United States and saw the critical role of intellectual property in building the inventive capabilities – and wealth – of its people.[12] He said the patent system "added the fuel of interest to the fire of genius." At a time when the wealth of our nation increasingly resides in the basic capabilities of people to invent and create, the strength and vibrancy of the national and international patent system cannot be compromised.

[12] Lincoln, A., *Lecture on Discoveries and Inventions,* Jacksonville, Illinois, February 11, 1859, in *Speeches and Writings: 1859-1865* (Washington, D.C.: Library of America, 1989), P.4. Lincoln saw the patent and copyright clause in the U.S. Constitution as being an essential element in the process of building a nation based on technological progress. It is in that speech that he characterized the patent system as having "added the fuel of interest to the fire of genius."