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Federal Trade Commission  
Room H-159  
600 Pennsylvania Ave., NW.  
Washington, D.C. 20580

UNRECORDED  
P994413  
479004-#1

Re: High-Tech Warranty Project – Comment, P994413

Greetings:

The Washington Software Alliance (WSA) welcomes this opportunity to respond to the Federal Trade Commission's solicitation regarding Warranty Protection for High-Tech Products and Services. The WSA is the oldest and largest statewide trade organization of its kind in the nation. As Washington's dynamic software industry has evolved to include myriad products and services, the WSA has grown in tandem to assist this vital part of Washington State.

It is not possible to provide a response to all questions listed in the FTC solicitation without writing a treatise and addressing issues that are not included in the FTC's list of questions. Accordingly, we simply seek your consideration of the following points.

**1. A reason for the vibrancy of the current economy is the innovation created by the information industries. Imposition of warranty rules on information at this stage of information development is unwise and unsafe.** The Federal Reserve Bank of Dallas has explained that our current economy is unusual and does not reflect the economy for which the Magnuson-Moss Warranty Act ("Act") was written 25 years ago:

Traditional theories are at a loss to explain the 1990's. They miss the mark because of sweeping changes in the U.S. economy. Over the past two decades, a new economy has emerged from a spurt of invention and innovation, led by the microprocessor.

...The microchip ignited wave after wave of invention and innovation. New technologies and new products burst forth, a modern-day alchemy turning silicon into gold. The microprocessor and its spillovers forged an Information Age infrastructure of ever more powerful and affordable computers, increasingly complex software . . . and the ubiquitous Internet.

What's different about the New Economy? There's an unbridled dynamism, flowing from an entrepreneurial capitalism. A novel idea and a little money can spark a billion-dollar business almost overnight.

Yesterday's economy was dominated by establishment capitalism, with high barriers to entry that disadvantage newcomers and new products.<sup>1</sup>

It is for yesterday's economy that the Magnuson-Moss Warranty Act was written, although the Act made room for the information economy by confining its scope to tangible products that are sold. Such products do not or should not include computer information such as software and the scope of the Act should not be changed.

**2. Laws regarding computer information should allow small companies to survive and innovate. Imposition of Magnuson-Moss will not allow that.** We enclose a copy of WSA's annual Industry Overview for 1999-2000. The statistics illustrate that the software industry is fueled by small companies, even in a state like Washington which is home to Microsoft. Seventy-one percent (71%) of the software companies in Washington have 25 or fewer employees, with 66% having 15 or fewer and 44% having 5 or fewer. This contrasts to the Magnuson-Moss "old" economy which was dominated by high barriers to entry and established companies. A basic tenet of the Act is that implied warranties may not be disclaimed if a company dares to provide a written warranty: only deep-pocket companies or companies making predictable products can afford to accept that dare.

**3. Software and other information products are not the same as goods and no statute written for goods should be applied to them without extensive examination and careful study.** Numerous commentators have attempted to explain the difference between information, including software, and goods. But in a society that grew up in a goods economy, and in a society whose legal infrastructure was written for goods, thinking in terms of information instead of goods is hard. But thinking in terms of goods leads to wrong results<sup>2</sup> and that is why we welcome the chance to respond to the FTC's questions. We hope that other responses will detail for the FTC the significant difference between goods and information and the need to avoid application to computer information of statutes written for goods. This concept has been graphically explained by Professor Rustad:

The Courts apply Article 2 by analogy to the licensing of information because no suitable alternative paradigms exist. The concepts of Article 2 are adapted to information contracts though "legal fictions." Judges must 'pretend' that a law constructed for the sale of tangibles also accommodates the licensing of information. . . . The courts' strained efforts of applying the law of sales to the licensing of intangibles is like the television commercial in which two mechanics are trying to fit an oversized automobile battery into a car too small to accommodate it. The car owner looks on with horror as the mechanics

hit the battery with mallets, trying to drive it into place. The owner objects and the mechanics say, 'we'll make it fit!' The owner says, 'I'm not comfortable with make it fit.'

Similarly, judges are applying a sales law that does not fit with the commercial realities of licensing software. Judges must treat software 'as if' it fits a sale of goods because no specialized commercial law for licensing information commodities exists. Doing nothing only exacerbates the problem by proliferating 'legal fictions' rather than applying a rationally constructed information law.<sup>3</sup>

**4. The Magnuson-Moss Act prohibits disclaimer of implied warranties if a written warranty is given – that is not appropriate for software and other information products.** For over 50 years, Article 2 of the Uniform Commercial Code has allowed sellers of goods to disclaim all implied warranties. The Act preempts the Article 2 rule for sellers providing a written warranty for tangible goods that are sold – they may not disclaim implied warranties. That concept works fine for goods which are less complex than software and which do not have to interact with myriad other items (such as hardware and other software). The concept is disastrous for software:

I'm a consultant and a developer. Since I get to see things from the user's point of view and from the programmer's point of view on most days, perhaps my thought on legal protection for buyer of software would be of interest to you.

Think of it this way: a moderately small app[lication] these days might contain 10,000 lines of source code. Each of those lines of code is roughly analogous to a part in the product. When was the last time you could buy something other than software that has 10,000 parts and costs \$60? When was the last time you could buy something other than software that has 10,000 parts and went from conception to delivery in 12 months?

Cars make a good analogy here, I think. They're expensive, boring, and take forever to get to market but consumers are well protected. Would you like to wait three years for the testing to be done on version 2.0 of your newest piece of software? Would you like to pay for that testing in the price of the app?

When was the last time you saw a really exciting, innovative app that was written by a large software company? I haven't seen one in years. (I'm biased, I'm a small software company.) Small developers, no matter how conscientious, almost certainly can't afford the kind of testing that would ensure that no user had a problem no matter how strange the user's system. If you wanted to distribute an app for Wintel boxes, could you afford to buy enough PCs so that you were sure you had one of every version of every BIOS in use to test the thing on?

I have a suspicion that there are some differences in how some system routines work in the German-localized OS of a machine I sometimes develop for and that those differences can cause one of my

apps to crash. The problem is that I don't have access to a German-localized copy of the OS. Even if I did, should it be necessary for me to learn to find my way around every localized version of an OS before I can write code for the machine it runs on? I can't afford the time or the money to do that.

As a matter of practicality, whom should we pay to decide where a bug lies? It could be in the user's configuration of his or her computer, or in the computer's BIOS, or in the OS, or in the compiler, or in the libraries, or in the source code, or in another app that's running at the same time. It's not necessarily a trivial job to figure out which of those isn't behaving according to the documentation. If you can figure that out quickly and reliably, I have some debugging work I'd like you to do for me.

. . . Mind you, I'm very much in favor of developers testing their code and documenting and fixing their bugs. I try to do all of those things very carefully. But I don't think that anyone but a few giant software companies could afford the kinds of testing, returns, and insurance that you seem to suggest software developers should be required to spend money on.<sup>4</sup>

WSA and the software industry have countless members in the position of this developer.

**5. Competition depends on the ability to disclaim warranties.**

The open source or "free"<sup>5</sup> software movement is one of the major sources of competition to the Microsoft operating system. The open source operating system is distributed by *license* only -- there are no sales. The system is commercially distributed by companies such as Red Hat. As explained by the licensor,

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.<sup>6</sup>

This distribution structure is antithetical to the Act and the tenor of the FTC questions which seem to reveal an apparent but unexplained bias against licensing. The software also comes with and depends upon a complete disclaimer of warranties, whether the user be a middleman or end user -- any software containing part of the code licensed under the public license is subject to that disclaimer of implied warranties:

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

*Id.* The Act is also antithetical to this aspect of the open source license: the Act prohibits the very disclaimer of warranties upon which the open source distribution system depends. The State of Maryland recently fell into this trap when it amended a section of the Uniform Computer Information Transactions Act which, like the uniform version of U.C.C. Article 2, allows disclaimer of implied warranties. Maryland wrongly concluded that because its non-uniform policy with respect to goods precluded disclaimer of the implied warranty of merchantability, it should automatically have a similar policy for software. The State did try to avoid part of the problem by excepting "free" software, but of course that does not solve the problem because open source software is free with respect to access to the source code, not free in a monetary sense. Some members of the open source movement have claimed that open-source software, but not competing "closed" operating systems, should be given an ability to disclaim implied warranties because the code is open and therefore every user can determine for himself the quality or lack of quality of the software. Of course, that is nonsense at least from a legal perspective. It also ignores the complexity of open source software and assumes that it will never be distributed on a mass-market basis (which is not the case).

**6. Computer information, including software, invokes public policies that can conflict with warranty concepts.** There are vast differences between a good and information – information is affected by First Amendment and intellectual property issues that typically do not pertain to goods to the same degree or pervasively.<sup>7</sup> We recognize that software can have "functional" aspects but that does not end the question and simplistic applications of that distinction have already been rejected as a legal matter. *See e.g., Bernstein v. U.S. Department of State*, 192 F. 3d 1308 (9<sup>th</sup> Cir., 1999) and *Junger v. Daley*, 209 F. 3d 481, 28 Media L. Rep. 1609, (6<sup>th</sup> Cir. (Ohio) 4/4/00) (in both cases, the courts concluded that aspects of functional computer code could be viewed as speech impacted by First Amendment rights).

**7. While implied warranties on software can be appropriate, it is not appropriate to prohibit disclaimer of them, and that would be the result if the Magnuson-Moss Act is applied to software.** There may come a day when software is so predictable, mundane and standardized that the Act should be amended to apply to it. But that day has not arrived and, given the need for innovation, the increasing complexity of software and the global nature of the economy, may be a long time in coming.

WSA acknowledges that it may even be appropriate to impose an implied warranty of merchantability on computer programs. Section 403 of the Uniform Computer Information Transactions Act does just that even though the common

law does not impose any warranties. The Business Section of the Washington State Bar Association has extensively reviewed UCITA and recommended its adoption in Washington.<sup>8</sup> However, UCITA was expressly crafted over a 10 year period to take into account all of the above issues and, like U.C.C. Article 2, it allows disclaimer of implied warranties.

Amendment of the Magnuson-Moss Warranty Act to apply the Act to software or other computer information products will not benefit consumers. Consumers have been and will continue to be benefited by the robust economy, high paying jobs, product choice and innovation that characterize the information economy. In that economy, many members of the software industry voluntarily provide express warranties tailored to meet their products. They should be allowed to continue to do that and not penalized for doing so by extending coverage of an Act that prohibits disclaimer of implied warranties. That would be the effect of applying the Magnuson-Moss Warranty Act to software.

Thank you for considering our views.

Very truly yours,

WASHINGTON SOFTWARE ALLIANCE

By



Kathleen P. Wilcox  
President & Chief Executive  
Officer

WSA FTC LETTER-MAGMOSS.DOC

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<sup>1</sup> See the Bank's 1999 Annual Report (at 4 and 5).

<sup>2</sup> See e.g., Nimmer, Raymond T, *Images and Contract Law – What Law Applies to Transactions in Information*, 36 Houston Law Review No. 1 at 1 (1999)

<sup>3</sup> Michael L. Rustad, *Commercial Law Infrastructure For The Age of Information*, 16 MARSHALL J. COMPUTER & INFO. L. 255, 270 (1997).

<sup>4</sup> Submission by Matthew Dixon Cowles to Ed Foster, InfoWorld Contributing Editor, who solicited email and published a column to elicit comments on Article 2B, a precursor to UCITA.

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<sup>5</sup> "Free" does not mean without consideration – as explained in the preamble to the GNU license, it means that the source code can be freely changed and distributed:

"When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things."

<sup>6</sup> See preamble to the GNU Lesser General Public License at <http://www.gnu.org/copyleft/lesser.es.html>.

<sup>7</sup> See e.g., *Winter v. G.P. Putnam's Sons*, 938 F.2d 1033 (9th Cir. 1991)(recipe in book not a product for purposes of product liability law); *Way v. Boy Scouts of America*, 856 S.W.2d 230 (Tex. 1993)(information conveyed in magazine is not a product); *Garcia v. Kusan, Inc.* 39 Mass. App. Ct. 322 (1995)(concept and instructions of a game are not products for strict liability or warranty purposes); *Birmingham v. Fodor's Travel Publications, Inc.* 73 Haw. 359 (1992)(ideas and expressions in book are not a product; court unaware of any court holding to contrary) and see *Herceg v. Hustler Magazine, Inc.*, 565 F. Supp. 802 (S.D. Texas 1983); *Cardozo v. True*, 342 So.2d 1053 (Fla. Dist. Ct. App. 1977)(UCC warranties are limited to physical properties of books and do not extend to material communicated); *Smith v. Linn*, 563 A.2d 123 (Pa., 1989), *aff'd* 587 AS.2d 309 (1991) (First Amendment protect contents).

<sup>8</sup> A copy of the report regarding UCITA is available at <http://www.wsba.org/sections/biz/lcc/report/2000Ucita.htm>.

One of the challenges in taking an overview about the software industry lies in reporting not the obvious phenomenal growth but more the *what* and *who* defining this vibrant industry. Its growth both locally and nationally is no secret; nor is the ripple effect it is having on the economy, on the workforce, and on how we do business. However, this ripple effect also makes it difficult to qualify its growth. The makeup of the industry changes and evolves so that today new and dynamic business models combine what once were completely separate industries like retail, manufacturing, software, and technology.

It seems every day we read in the business section of our local paper about new start-ups and company spin-offs that directly impact the real estate market, employment, services, and the infrastructure necessary to open those businesses. And Washington is leading this phenomenon. According to a recent report from the Washington Technology Center, new ideas turn into products and companies here in Washington at a rate faster than anywhere else in the U.S. Of course this phenomenon couldn't take place without having systems in place on a local level—including government, academia, and associations like the WSA—that foster the creation of new ideas and help these businesses grow.

The WSA has played a pivotal role for over 15 years in helping organizations and people in software and Internet-based product and services companies succeed. Our vision is to make Washington state the information technologies center of the world. Our goal in this report is to record some of the changes taking place and their impact on this ever-changing industry and on the world of business.

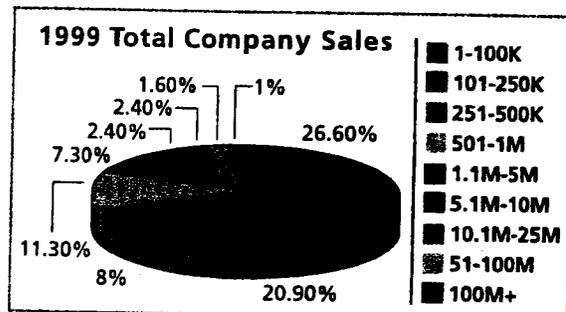
## Industry Information

First let's take a look at the facts and figures that contribute to the success of our industry as a whole.

### Economic Impact

According to a recent Business Software Alliance report, the software industry reached \$140.9 billion in sales in 1998, with our state contributing \$25 billion to that total, making software one of the fastest-growing and most vibrant segments of the U.S. economy. As businesses prosper, our government (locally and nationally) directly benefits from collecting taxes that totaled \$28.2 billion nationwide; Washington State collected \$2.3 million of that total.

The York Group recently reported that U.S. high technology companies exported a record USD \$181 billion in products last year. This accounts for 25% of total U.S. exports. Canada, Mexico, Japan, the U.K., and South Korea were the largest markets for the U.S. Likewise the U.S. was the world's largest importer of technology in 1999, purchasing USD \$220 billion.



### Employment/Workforce

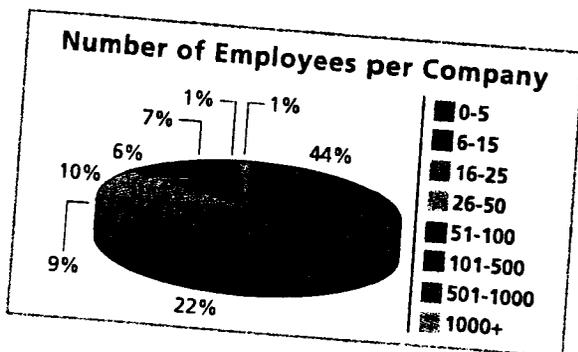
Nationally the trend growth rate of software industry employment has nearly doubled. The BSA reports that since 1994 it has been growing 13.9 percent per year, impressive in contrast to private industry employment that has been growing 2.5 percent per year since 1994.

The Washington Technology Center reports that employment in Washington's technology industries is the key indicator of how large and how healthy these industries are—growth that enhances the stability of the state's economy. The report goes on to say that employment in Washington's technology industries has been constant as a percentage of total employment for the past 10 years. It now represents 11.4% of total employment. Each of these technology jobs creates a need for 2.36 additional jobs, resulting in 38.2% of total employment attributed to technology industries.

However, the gap developing between the workforce and vacant positions threatens to stifle productivity and revenues. Unfortunately, we can't

fill the positions that are opening up in our industry fast enough. The WSA is working with industry members, local and state agencies, and our school systems not only to address this problem but to put in place permanent measures that will continue to meet the employment needs of our industry. In a survey conducted by the Northwest Policy Center for the WSA, 40 percent of the respondents indicated that staffing shortages pose a significant deterrent to expansion and to product delays. At the time the survey was taken (July 1998) the software industry employed approximately 46,700 persons in Washington State with nearly 14,700 vacant positions, at least half of which were in Washington State. Furthermore the survey reported that during the next three years, these companies would like to grow to a total Washington State employment of at least 110,600—a three-year increase of nearly 64,000. To address the employee needs of the industry, the WSA has developed a number of workforce initiatives that include

- expanded investment in education
- education programs that reflect state-of-the-art industry needs
- stronger promotion of opportunities in the software industry
- a long-term commitment by industry, education, and government



Locally, in response to this need, Tacoma Community College opened a new Technology Certification Center. The new full service training and certification facility responds to the critical shortage of skilled technical workers. Because dozens of new high tech companies are either growing up in Tacoma or moving here, Gov. Locke has asked community and technical colleges to take "aggressive action" and to expand their information technology

programs to address the growing local hiring needs. Additionally, the state's Higher Education Coordinating Board awarded Edmonds Community College a \$700,000 state grant to expand its high tech training in new high demand computer job fields. Seven other community colleges and three universities also received information technology grants from the HEC Board. The WSA is also developing a variety of initiatives in an attempt to better educate the youth of our community about information technology opportunities and requirements through a comprehensive School-to-Work program made possible by a grant from the Department of Labor. (See "WSA announces 'Adopt a Class'")

### Investments

According to the MoneyTree report from PriceWaterhouseCoopers, 1999 was another record breaking year for venture capital. Investments reached a new high of \$35.6 billion. The number of companies receiving funding rose by 41 percent, and the average dollar invested per deal rose to \$8.9 million, a 71 percent increase over last year. Companies in the software industry category captured 14.7 percent of all investments in 1999, increasing 88 percent over last year to reach \$6.6 billion.

Impressively, venture capital investments in the Northwest grew by more than 200 percent, with Washington venture capital investment reaching \$1.2 million compared to \$401 thousand in 1998.

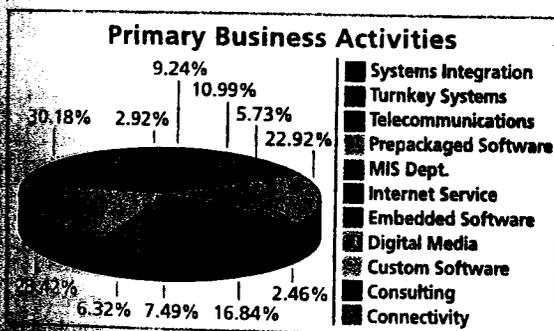
## WSA Industry Profile

The WSA's annual member survey serves as the organization's primary vehicle to measure the growth and makeup of the state software industry. With this information, the organization analyzes characteristics of the industry and—using data from other sources, such as the Washington State Dept. of Revenue and Employment Security—assesses industry demographic trends. Three specific categories of government data informed previous WSA industry overviews: custom software developers (SIC Code 7371), developers of packaged software (7172), and systems integrators (7373). However, with the changes that have occurred in our industry, the WSA is incorporating additional segments in

these calculations such as online information services (7375), computer facilities management services (7376), and data processing services (7374). In 1999, the WSA distributed 1200 surveys to member companies across the state and received 855 responses. Here is what our member companies reported for 1998:

**Industry Employment.** In 1998, Washington-based software companies employed more than 44,657 people in the technical sector, a 13.5% growth over 1997 figures according to Employment Security. Most companies do remain small in size with 67% of the companies surveyed employing fewer than 15 people.

**Growing the Industry.** The WSA continues to attract young and innovative companies. The survey reports that 45 percent of our member companies were created in the last 5 years alone, compared to 22 percent in 1998. Because the WSA offers an extensive network of business alliance resources, these companies can remain competitive and continue to focus on their products or services without having to shop around for cost controllable items such as payroll, healthcare, and 401(k) plans, just to name a few.



**Company Revenue.** The WSA estimates that software companies in the state generated over \$26 billion in total sales in 1998. Of the companies reporting sales figures in our survey are small: 33 percent of those companies generated less than \$1 million in sales in 1998, and 69 percent earned less than \$5 million. However these figures do not take into account the sales from e-commerce businesses. While it is difficult to obtain accurate figures from traditional government sources, like the Dept. of Revenue, on e-commerce revenues, research firms are busy making their predictions for continued vitality in the e-commerce market. For

1999, Boston Consulting Group charted \$33.1 billion in North American business-to-consumer e-commerce revenues. Forrester Research predicts revenues will reach \$6.9 trillion by 2004 worldwide with North America contributing \$3.5 trillion to that total. eMarketer estimates global e-commerce to reach \$1.4 trillion by 2003.

According to those responding to the WSA survey, Europe continues to be the most attractive—with Asia Pacific second—as international partners for our member companies.

**International Opportunities.** Selling product overseas remains attractive to the software industry, substantially contributing to a company's overall sales figures. As one of the ripple effects of the substantial growth occurring in this industry, companies are looking overseas much sooner in their business cycle. They are no longer waiting to "get it right" here before looking for international opportunities to sell their products or technology. If they don't address the international marketplace themselves, they fear of course that someone else will.

According to those responding to the WSA survey, Europe continues to be the most attractive—with Asia Pacific second—as international partners for our member companies.

## Conclusion

No matter how we look at it, we the consumers are the ones who directly benefit from the growth of this industry: increased access to information and services are changing the way we live and work. And while it is important to celebrate the fruits of our labor as an economic workhorse, both locally and nationally, we must also take the steps necessary to address the issues chipping away at the success achieved by this industry. Through the combined efforts of government, academia, the WSA, and like organizations, we can address these issues and act as the enabler of the technology industry. The WSA proudly acts as a catalyst to grow careers, departments, divisions, companies, and—most importantly—opportunity. ■ WSA