Introduction

BSA | The Software Alliance welcomes this opportunity to provide information as part of the Commission's important investigation into Digital Trade in the US and Global Economies.

BSA has the privilege to represent leading global companies developing software products to improve business productivity and the quality of life for consumers. Our companies make products that enable and provide solutions for all sectors of our economy. Our member companies include both major global software companies and smaller businesses making niche software. But a common thread for our members is the importance of access to global markets.

BSA member products and services are at the cutting edge of digital trade. Our members make products and services that operate in a digital format and are sold across borders in both digital and physical form. While digital distribution of these products and services is on the rise – through cloud computing and other distribution models – in either format of distribution (digital or physical) our members’ products and services are integral to digital trade. As such, we encourage the Commission to use a broad definition of “digital trade” as part of this investigation that encompasses the full range of digital products and services regardless of the distribution model used.
Notably, overseas markets now represent more than half our members’ overall business. Yet many challenges exist to our members’ ability to sell their products and services in foreign markets. Key markets in all regions of the world are erecting, or considering erecting, barriers to BSA member products and services. This impedes the ability of BSA member companies to contribute to economic and job growth here at home. It also undercuts the ability of businesses and consumers in other countries to have access to products that may have the best functionality and be the most cost-effective for their needs.

Barriers to Digital Trade

Below is an overview of six significant types of barriers BSA member companies face to the sale of their digital products and services in foreign markets. Collectively, these barriers undermine the ability of BSA member companies to compete in the foreign markets experiencing the most rapid growth. More extensive details on these barriers to digital trade, along with case studies, can be found in a report we issued last year (see Appendix A).¹

1. Software Piracy

One significant barrier is software piracy – the unlicensed use of software by businesses and consumers alike. Software piracy persists at high levels in major markets around the world, robbing software producers of market opportunities on a massive scale.

BSA has tracked personal computer (PC) software piracy rates for years in a study we conduct in partnership with the market research firm IDC and Ipsos Public Affairs. The most recent study – looking at software piracy in 2011 – found that globally 42% of software installed on PCs that year was unlicensed.² This level of piracy represents more than $63 billion in unlicensed software use.

The reality is that while the global rate of software piracy has remained relatively flat in recent years, the rapid growth of the global PC market has made the scale of software piracy escalate dramatically – moving from $47.8 billion in 2007 to $63.5 billion in 2011. That is an increase of nearly 33% in just four years.

¹ BSA, Lockout: How a New Wave of Trade Protectionism Is Spreading through the World’s Fastest-Growing IT Markets – and What to Do about It (June 2012), available at Appendix A and at www.bsa.org/tradelockout.
The problem has been particularly acute in the world’s fastest growing IT markets. For Brazil, Russia, India and China – the so-called “BRIC” markets – the collective software piracy rate was a staggering 70% in 2011, representing nearly $18 billion in unlicensed software use.

BSA has for years focused in particular on the unlicensed use of software by enterprise end-users. This includes business enterprises that use software well in excess of the license terms (or avoid paying at all for the software they use) as well as government agencies and state-owned enterprises.

In **China**, the software piracy rate was 77% in 2011, representing nearly $9 billion in unlicensed software use. This includes unlicensed software use by government agencies and by state-owned enterprises. We note that the Chinese government has made numerous bilateral commitments to the US and issued directives to ensure legal software use in government agencies at all levels (central, provincial, municipal, county). This has led to incremental progress in terms of software sales to the government, but significant work remains by the Chinese government to implement a comprehensive software legalization program that utilizes software asset management best practices. Moreover, China has yet to launch a robust legalization program to deal with unlicensed software use by the much larger and commercially important state-owned enterprise sector.

In **Ukraine**, where the software piracy rate was 84% in 2011, the government has also made bilateral commitments to the United States and issued directives to combat unlicensed software use in government agencies and to address online piracy but to date has taken wholly inadequate steps toward this result.

Notably, unlicensed software use by governments remains a problem even in countries that have specific trade obligations to address this. For example, in **Korea**, the government agreed to obligations on government software legalization in the Korea-US Free Trade Agreement (KORUS), yet software industry representatives have recently raised concerns about significant under-licensing of software by certain government ministries which remain unresolved.

The data on piracy highlighted above make plain that ineffective protection and enforcement of software intellectual property is a huge impediment to our members’ ability to sell and compete in key markets. Addressing this problem will require strengthened copyright and civil and criminal enforcement laws to prevent unauthorized use of software by enterprises and to provide effective means for deterring websites from selling or otherwise offering access to unlicensed software. It also will require governments and enterprises to implement
software asset management programs that utilize best practices to help them effectively manage their software and ensure software license compliance.

2. Restrictions on Cross-Border Data Flows

One of the most exciting developments in the software industry today is the growth of cloud computing. For example, BSA members are now providing software programs, data storage and management and other offerings over the Internet where customers can pay for these as a service.

Cloud computing offers enormous benefits for enterprises of all sizes, and for governments and consumers. It levels the playing field by allowing individuals and small- and medium-sized businesses to enjoy computing power that has long been available only to major users. It opens the door to tremendous gains in efficiency, productivity and competitiveness for governments and businesses in the global marketplace.

Cloud computing can contribute significantly to the US economy and global growth. One recent study found that public and private IT cloud services will produce nearly 14 million jobs worldwide by 2015 – and more than half of those will come from small and medium-sized businesses. It goes on to predict that in that time cloud computing will generate as much as $1.1 trillion in annual revenue.

To maximize the benefits of cloud computing, cloud providers need to be able to operate effectively across borders. This means being able to locate cloud servers where it makes the most sense logistically and economically and offering cloud services from these locations to whichever markets have sufficient demand.

Unfortunately, we are now seeing many countries implementing or considering policies that impede the ability to offer cloud computing services across borders, including: (i) restrictions on cross-border data flows and (ii) “forced localization” policies that require data servers to be located in-country in order to serve the local market.

Specific examples of policies that impede cloud computing include:

- **Canada, China, Greece, India,** and **Malaysia,** which have data residency laws that require companies to store data on servers located in the country where it is collected;

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• **China**, where licenses to provide commercial Internet-content services, including any Web- or cloud-based content services, are available to foreign firms only in certain narrow circumstances;

• **Korea**, where last year’s “Bill on the Development of Cloud Computing and Protection of its Users,” which has been revised but remains under review, would have presented several obstacles for international cloud computing providers by imposing strict regulatory requirements and potentially requiring new Korea-specific standards;

• **Indonesia**, where the government in August 2011 issued a draft amendment that would require data service providers to establish local representation in Indonesia, including local data centers; and

• **Vietnam**, where the Ministry of Information and Communication issued a draft decree that would subject providers of data center and cloud computing services to significant restrictions on the cross-border supply of services and to requirements that they locate entire equipment systems used for providing such services in the country.

These types of policies stunt the growth of cloud computing and the enormous benefits it can offer businesses large and small and consumers in the US and abroad.

### 3. Procurement Discrimination

Governments are often among the biggest (and sometimes the biggest) consumer of IT goods and services. Yet in many countries we are seeing policies put in place that impose significant restrictions on foreign supplier participation in government procurement markets.

When governments exclude foreign suppliers, it not only harms sales for those suppliers, but in many instances it denies government purchasers the ability to choose the best available products and services to meet their needs.

In **China**, the government has introduced a broad array of “indigenous innovation” policies at various levels of government (central, provincial, and municipal). Under one such policy, the Chinese government proposed to develop catalogs of “indigenous innovation” products to receive preferential treatment in procurement, and one of the requirements for becoming listed in the catalogs was that the product’s IP was owned and developed in China. Although Chinese leaders have committed in recent bilateral negotiations with the United States to “delink” government procurement from these “innovation” policies, multinational IT suppliers continue to confront this form of discrimination by government agencies at all levels.
In Brazil, the Ministry of Science, Technology & Innovation (MCTI) recently announced a “Bigger IT Plan” to bolster the growth of the domestic IT industry. The program focuses heavily on software and related services and includes a new process for the government to evaluate and certify that software products are locally developed in order to qualify for government procurement price preferences for local products that could be as high as 25 percent.

Similarly, in many countries state-owned enterprises are major purchasers and providers of software and other IT products and services. This poses a significant challenge for foreign companies when these state-owned enterprises benefit from favorable treatment from the government, including preferential financing, fewer regulatory burdens, and preferred status as vendors to the government. In addition, there are instances where governments extend government procurement mandates and requirements to state-owned enterprises and limit their purchasing decisions. Both scenarios can severely harm the market opportunities for foreign software companies.

Moreover, there are examples where governments are extending procurement mandates to private enterprises. In India, the government issued a notification in February 2012 implementing procurement mandates for domestically manufactured electronic goods. Under this policy, at least 30 percent of procurements are set aside for domestically manufactured products, which are defined as products with a specified percentage of domestic value-add (starting at 25 percent in the first year and increasing to 45 percent after five years). These preferences apply to procurement by government agencies and to procurement by certain government-licensed private enterprises such as telecommunications service providers and financial services firms.

4. Manipulation of Technology Standards

Technology standards play a vital role in facilitating global trade in IT products and services. When standards are developed with industry participation and accepted across markets, it generates efficiencies and speeds the development and distribution of new products and services.

Yet, we are seeing many instances of governments developing country-specific standards and otherwise manipulating standards-setting processes to favor local companies and insulate them from foreign competition.

In China, regulators have pressed domestic standards development organizations (SDOs) to adopt standards put forward by domestic firms or that implement patented technologies
owned by these firms over more widely adopted international standards. As part of its “indigenous innovation” efforts, China has adopted or sought to develop unique Chinese standards in areas including, among others, Internet protocols, 3G telecommunications services, wireless local area networks, digital audio and video, radio frequency identification technology, and encryption. Chinese SDOs also may restrict meaningful foreign participation in standards-setting processes, which can make it difficult for non-Chinese entities to influence standards development or protect their patents.

5. **Overreaching Security-Related Regulations**

We are also seeing governments use “security” requirements to impose measures that operate as unwarranted barriers to trade. These include restrictions on government and enterprise procurement of software and other IT products from foreign suppliers, or unreasonable testing and certification requirements. These measures not only create barriers to the sale of foreign IT products, but in practice deny local consumers and businesses access to products and services that may offer them the best solutions to meet their security needs.

For example, **China’s Multi-Level Protection Scheme (MLPS)** mandates that only Chinese-owned information security and other IT products with core IP that is Chinese-owned can be used in a broad array of information systems the Chinese government considers sensitive. The policy takes a broad view of sensitive systems that could sweep in most of China’s large state-owned enterprises and government agencies in the areas of finance, transportation, telecommunications, health, education, and other areas not directly related to security. In last year’s US-China Joint Commission on Commerce and Trade negotiations, China committed to revise this policy after consultations with stakeholders. We hope this will lead to meaningful changes in this restrictive policy.

In **India**, the government has imposed costly and burdensome in-country testing and certification requirements on products procured by telecommunications service providers. Beginning April 1, 2013, all network “elements” must be tested and certified by authorized laboratories in India. This will preclude companies from utilizing long-established, internationally accredited laboratories in other countries. The in-country testing and certification is required even though there is no evidence that where the test is performed has any bearing on its accuracy as long as the laboratory has achieved appropriate accreditation.
6. **Persistent Tariffs on IT Products**

Finally, in addition to the non-tariff barriers discussed above, it is important to note that software and other IT products continue to face tariff barriers in key markets.

The multilateral Information Technology Agreement (ITA), launched in 1996 under the auspices of the WTO, has had an enormous impact on removing tariff barriers to global trade in IT products. According to a recent report, implementation of the ITA was a key driver in the expansion of global trade in information and communications technology products from $1.2 trillion in 1996 to $4 trillion in 2008.\(^4\) However, the ITA has not kept pace with IT product development. In the years since the ITA came into effect, global IT companies have come out with a broad array of products that are not adequately covered under the agreement, including new types of semiconductor chips, IT-enabled medical devices, and such computer accessories as monitors and speakers, DVD players, and video game consoles. By some estimates, an expanded ITA could remove tariffs on $800 billion or more of global information and communications technology trade.\(^5\)

In addition, while more than 70 trading partners are members of the ITA, several important ones are not members, including Brazil, Chile, and Russia (which recently joined the WTO, but to date has not joined the ITA). Their lack of participation in the ITA means that software and other IT products may face continued and significant tariffs in these important markets.

BSA strongly supports the current efforts underway by the United States and other ITA members to expand the agreement and hopes this process will conclude over the next few months.

**Economic Harm**

BSA looks forward to working with the ITC during this investigation to help assess the economic harm caused by the barriers to digital trade identified above. As an initial data point, we would refer you to the important work done on this by the International Intellectual Property Alliance (IIPA), of which BSA is a member.

IIPA has for many years commissioned a study looking at the value of copyright industries to the US economy. The most recent report, issued in November 2011, had several key


\(^5\) Ibid.
findings that highlight what is at stake in digital trade for copyright industries (all of which trade in products in digital format).\(^6\)

- Copyright industries added $1.627 trillion or 11.10% to US GDP in 2010.
- Copyright industries employed more than 10.6 million workers in 2010, accounting for 8.19% of all U.S. employment, or nearly 10% of all private employment in the United States. The average annual compensation paid to employees of the copyright industries in 2010 ($70,513) exceeded the US average annual wage by 15%.
- Estimated 2010 foreign sales of key copyright industries amounted to $134 billion (nearly $100 billion for computer software alone), a significant increase over previous years.

BSA appreciates this opportunity to provide information to the Commission in this important investigation. We look forward to providing additional assistance as the investigation moves forward.

Appendix A

BSA, *Lockout: How a New Wave of Trade Protectionism Is Spreading through the World’s Fastest-Growing IT Markets – and What to Do about It* (June 2012).