
EXPANDING THE FRONTIERS OF OUR DIGITAL FUTURE:

Reducing Software Piracy to Accelerate Global IT Benefits

December 2005





Executive Summary

Fueled by vibrant software sector growth, the information technology (IT) sector is a proven engine for expanding economic growth and opportunity. Reducing software piracy can be a strategic tool that countries use for creating high paying jobs, increasing tax revenues, expanding business opportunities, and fueling economic growth.

I. The Economic Impact of the IT Sector

This paper is based upon findings from an IDC analysis assessing the IT sector's economic impact in 70 countries around the world and the benefits that can accrue to countries that reduce software piracy. IDC finds that the IT sector's ability to create economic benefits can not only continue, but accelerate.

- **The IT Sector Is a Proven Engine for Global Economic Growth.** The global trillion-dollar-a-year IT sector (hardware, software, and IT services) consists of 1.1 million businesses, supporting 11 million high-paying IT jobs, generating nearly \$900 billion annually in taxes, and adding \$1.7 trillion per year to global economic prosperity. While these numbers testify to the economic force of the IT industry, the sector has yet to achieve its full economic potential.
- **Software Is the Key to Accelerating Future IT Benefits.** The software industry's accelerating growth rate, combined with its ability to add value to other sectors of the economy, has propelled it to a new position of prominence as a primary driver of global IT benefits. Between 2004 and 2009, the software related jobs and tax revenues will grow better than 5% a year.

II. Reducing Software Piracy Can Deliver Vast Economic Benefits

The continued growth, vitality and innovation of the global IT sector—and the benefits it delivers—are increasingly dependent upon reducing software piracy worldwide.

Five Key Findings:

1. Lower Software Piracy Produces Higher IT Benefits. Not all countries enjoy the same benefits from their IT sectors. A country's software piracy rate is a key differentiator among countries that enjoy vast IT economic benefits and those that have

yet to unlock them. In general, countries with the lowest software piracy rates have the largest IT sectors as a percentage of GDP—yet they could still see enormous gains from piracy reductions.

2. Cutting Software Piracy Globally Can Generate Faster IT Growth. The IT sector, already projected to see rapid 33 percent growth between 2004 and 2009, instead could grow by 45 percent over the same period, or 12 percentage points faster, with the help of a 10-point reduction in software piracy over the next four years. In fact, four out of five countries (62 of 70) would see greater than 30 percent IT sector growth with the help of software piracy cuts. For example, with a 10-point piracy reduction:

- **China**—China could potentially gain more than any other country, tripling its already large IT sector and creating as many IT jobs in four years as the United States has created in 30.
- **Russia**—Russia's IT sector could triple in size—growing from \$9.2 billion today to \$30 billion in just four years.

A 10 point drop in the global 35% piracy rate over four years would add:

- **2.4 million new jobs**
- **\$400 billion to economic growth**
- **\$67 billion in tax revenues**

3. Faster IT Growth Can Increase Global Economic Output. Every one point drop in the piracy rate could result in a \$40 billion increase in global economic output. A 10-point drop in piracy could create 2.4 million jobs, \$400 billion in economic growth, and \$67 billion in additional taxes.

4. Countries With the Highest Piracy Rates Have the Most to Gain Through Reductions. The global survey finds that the top seven highest piracy rate countries are also among the top seven largest relative beneficiaries from reducing piracy. These big winners include China, Russia, Indonesia, Vietnam, Kazakhstan, Ukraine and Serbia-Montenegro.

5. Every Region Benefits. Every country and every region of the world stands to gain from software piracy reduction. Regionally, non-European Union Europe, followed by Asia Pacific, and Latin America, would see the greatest relative benefits from piracy reductions.

III. Who Wins & Why

A 10-point reduction in software piracy globally over four years would help:

- **Consumers benefit** from more choices and greater competition
- **Workers benefit** from 2.4 million new jobs
- **Innovators benefit** from the financial rewards of their creative spirit
- **Entrepreneurs benefit** through new opportunities to market, package, sell, distribute, customize, and service software
- **Governments benefit** from \$67 billion in new tax revenues for needed services that could be used to provide¹:

- 33 million computers for schools
- 45 million people with health care
- 6.6 million people with college educations
- 11 million children with schooling
- 435 million people with job training, or
- 132 million families with services like day care, maternity, or home help services

Five Concrete Steps for Reducing Software Piracy:

Governments can take practical, proactive steps to protect intellectual property and reduce software piracy by:

1. creating stronger legal protection for software
2. increasing enforcement
3. targeting resources more effectively
4. improving public education and awareness
5. setting an example through government leadership

¹ based on Organization for Economic Co-operation and Development cost estimates for government services

Expanding the Frontiers of Our Digital Future: Reducing Software Piracy to Accelerate Global IT Benefits

Introduction

In the last five years, \$5 trillion in information technology (IT) investments have unleashed unprecedented new innovations that have transformed almost every aspect of our lives. Yet, the IT sector's greatest untapped potential lies not only in what it enables individuals to do today but in its ability to fundamentally transform economies for tomorrow.

Fueled by software sector growth, countries around the world are translating IT sector growth into tangible economic benefits. The IT sector employs millions of people, generates billions of dollars in taxes and adds a trillion dollars a year to global economic prosperity. While these facts testify to the enormity of the economic force that the IT industry yields, the sector has yet to achieve its full economic potential.

This paper, based on IDC's cutting-edge research, analyzes the IT sector's impact in 70 countries around the world. IDC finds that the IT sector's ability to create economic benefits will not only continue but accelerate. Not all countries enjoy the same IT benefits. A key differentiator among countries that are already enjoying vast IT sector benefits and those that have yet to unleash them is a country's software piracy rate. Reducing software piracy is a strategic tool that countries can use to create more

Software piracy cuts can be a strategic tool for:

- Increasing jobs for workers
- Expanding choices for consumers
- Growing taxes for governments
- Improving productivity for businesses
- Promoting opportunities for entrepreneurs
- Unleashing creativity for innovators
- Increasing potential for economies, and
- Raising standards of living for everyone

high-paying jobs, increase tax revenues, expand business opportunities and fuel economic growth.

This paper is divided into three sections. First, it examines the IT sector's economic impact and why countries with low software piracy are enjoying vast IT benefits while others have yet to obtain them. Second, it explores the additional economic benefits that could accrue from a 10 percentage point reduction in software piracy. Third, it examines the implications of these findings and outlines concrete steps countries can take to drive broader IT-enabled economic benefits.

Analysis of 70 Countries in Six Regions Around the World

Asia Pacific

Australia
China
Hong Kong
India
Indonesia
Japan
Korea
Malaysia
New Zealand
Philippines
Singapore
Taiwan
Thailand
Vietnam

European Union

Austria
Belgium
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Netherlands
Poland

Portugal

Slovakia
Slovenia
Spain
Sweden
United Kingdom

Non-EU Europe

Albania
Bosnia
Bulgaria
Croatia
Kazakhstan
Macedonia
Norway
Romania
Russia
Serbia-
Montenegro

Switzerland

Ukraine

Middle East / Africa

Egypt
Israel
Kuwait
Saudi Arabia
South Africa
Turkey
UAE

North America

Canada
United States
Puerto Rico

Latin America

Argentina
Brazil
Chile
Colombia
Costa Rica
Dominican Republic
Mexico
Panama
Peru
Uruguay
Venezuela

Three Key IT Sector Findings:

1. The IT sector is a proven engine for global economic growth
2. Software will fuel future IT sector growth
3. Lower piracy produces higher IT benefits

I. The Economic Impact of the IT Sector

The IT Sector Is a Proven Engine for Global Economic Growth. IDC's economic impact model reveals the sheer magnitude of the IT sector's global economic impact. The IT sector supports 1.1 million IT businesses, employing 11 million IT workers, pumping \$1.7 trillion per year into global economic prosperity and generating nearly \$900 billion annually in taxes for governments.

Creating Jobs The IT sector directly employs 11 million IT workers in jobs that generally pay more than other private sector jobs. Because of the IT sector's dynamic ability to grow quickly, few other sectors can create jobs as quickly. In just the last four years, despite a global economic downturn that stalled IT job growth in some sectors, the overall IT sector nonetheless created 1.4 million more IT jobs—fueled entirely by software-driven job growth. And because IT growth has ripple effects throughout the economy, the IT sector also supports another 18 million IT professionals in a range of industries from consulting to transportation.

Generating Taxes As the IT sector grows, the benefits to governments grow too. The IT sector generates nearly \$900 billion annually in taxes to pay for needed government benefits and services. These tax benefits are helping to keep children in school, workers trained, mothers healthy, transportation systems running and the public secure. In fact since 2000, the IT sector has generated more than \$4 trillion in taxes for needed government services.

The IT Sector Has An Enormous Impact on the Global Economy:

- Supporting 1.1 million IT businesses
- Employing 11 million IT industry workers
- Adding \$1.7 trillion a year to global economic prosperity
- Generating nearly \$900 billion a year in taxes

Boosting Economic Potential The IT sector makes an enormous contribution to the global economy, adding \$1.7 trillion per year to global economic prosperity. The IT sector now accounts for a full 2.5 percent of the global economy. If the global IT sector were its own country, its GDP contribution would represent the 10th largest economy in the world—larger than the Brazilian, Canadian, or even Russian economies.

The IT sector is unique. It can grow faster, create higher paying jobs, boost economic productivity, lift standards of living, and multiply its impact throughout the entire economy in ways that other sectors do not. The faster the IT sector grows, the faster it creates businesses, taxes, jobs, and other economic opportunities.

Software Is the Key To Accelerating Future IT Benefits

The software industry's accelerating growth rate, combined with its ability to add value to other sectors of the economy, has propelled it to a position of prominence as a primary driver of global IT benefits. Globally, businesses and consumers will spend more than \$1 trillion on software over the next four years—or roughly one out of five IT dollars. As the world's economies become more interconnected, software has become a key driver of the digital revolution's benefits. As information goes digital, software benefits go global.

Software & Services Now Account for Most IT Spending

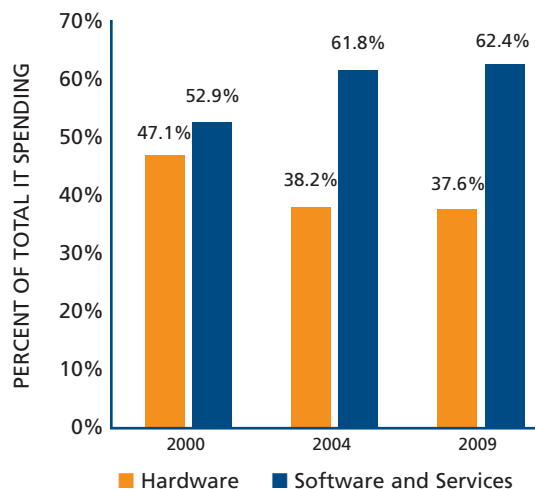


Figure 1: Source IDC Data

Software & IT Services Will Lead IT Sector Growth

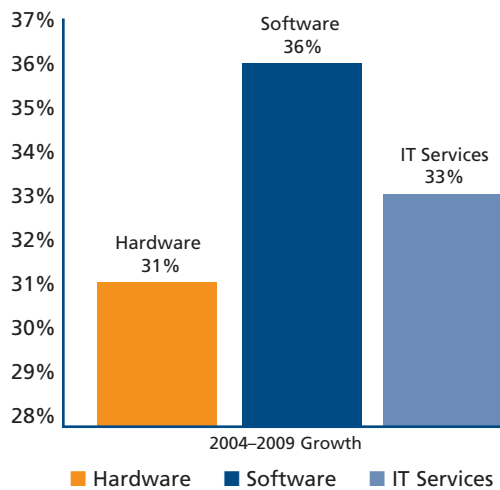


Figure 2: Source IDC Data

Software is the fuel that drives the IT sector's growth engine. Software helps extend IT sector benefits further and faster—further into new sectors of the economy and at a faster rate than it otherwise could. With the help of the related IT services sector, software growth helps stimulate growth throughout the broader economy.

The software and IT services sectors comprise more than 60 percent of all IT sector spending (see figure 1). In fact, in the last four years, software-related job growth accounted for all IT job growth—creating 2.8 million jobs overall. Between 2004 and 2009, the software sector will create new jobs and new companies at a faster rate than any other segment of the IT sector (see Figures 2 and 3).

Led by software advances, the IT industry appears to be entering a new phase of both growth and opportunity. New software applications have given people the power to create, communicate and collaborate in ways previously unimaginable. The benefits from these innovations are amplified throughout the economy as software tools transform traditional industries—from publishing to telecommunications.

The fusion of software and computing is helping traditional industries become more productive and effective too. Thus as the software sector grows, its effects ripple throughout the rest of the economy—helping drive local retail outlet growth, increasing demand for local software customization by IT professionals and boosting overall spending throughout the IT sector.

Software Will Create Jobs & Businesses Faster

Sector Growth Rates 2004–2009 (CAGR)

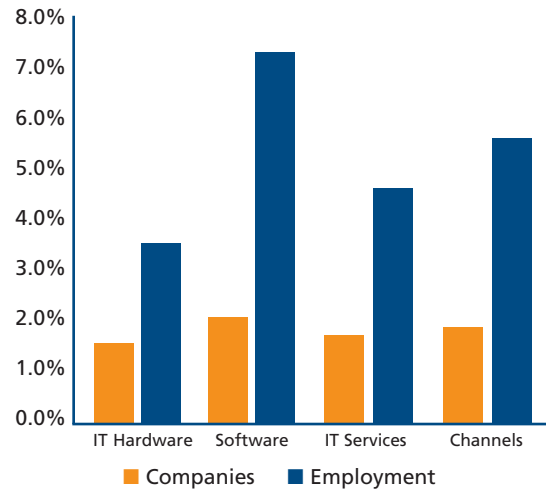


Figure 3: Source IDC Data

II. Reducing Software Piracy Can Deliver Vast Economic Benefits

It is clear that the IT sector is a powerful driver of economic benefits around the globe. Yet these benefits represent a small fraction of the economic potential the IT sector has yet to deliver. It prompts a fundamental question: what can countries do to maximize the IT sector's potential and harness rapid growth to the benefit of consumers, workers, treasuries and economies?

To answer this question, IDC combined its cutting-edge IT research with the results of piracy impact data from 70 countries around the world. IDC analyzed the economic benefits that countries could achieve by reducing software piracy. The results are extraordinary. IDC finds that continued growth, vitality and innovation in the global IT sector—and the benefits it delivers—are increasingly dependent upon a country's software piracy rate.

This new data not only finds that reducing piracy can boost IT growth, it also offers insight into the direct economic benefits that countries could achieve by lowering their software piracy rate. A modest and achievable 10-point reduction in software piracy can be a potent tool for delivering enormous economic benefits—accelerating IT sector growth, creating jobs, generating taxes and expanding economies. Thus, the study provides insights into the positive steps that a country can take to generate quantifiable yet tangible economic benefits.

Software piracy is a global phenomenon. The BSA/IDC Global Software Piracy Study found that in 2004, the world spent more than \$59 billion for commercial packaged computer software. Yet, software worth over \$90 billion was actually installed. For every two dollars worth of software purchased legitimately, one dollar was obtained illegally. Piracy rates in individual countries range from 21 percent to 92 percent – yet the IDC data finds that all countries could gain from piracy reductions. In fact, countries with the highest software piracy rates would achieve some of the largest relative benefits from piracy reductions.

Five Key Findings:

Five Key Findings of The Economic Impact of a 10-Point Reduction in Global Software Piracy:

1. Lower software piracy produces higher IT benefits
2. Cutting piracy can generate faster IT growth
3. Faster IT growth can increase global economic output
4. Countries with the highest piracy could see the largest economic gains
5. Every country and region in the world could benefit from software piracy reductions

Analysis of IDC’s data reveals five key findings regarding the economic impact of reducing the worldwide software piracy rate by 10-points—from 35 percent to 25 percent over four years.

1. Lower Software Piracy Produces Higher IT Benefits

Not all countries enjoy the vast benefits of a large or fast-growing IT sector. The countries that have grown their IT sector’s faster and larger see the benefit of more IT jobs, more IT businesses and more IT taxes. In contrast, IT-related benefits are a much smaller share of GDP in many countries. In analyzing the differences between countries enjoying small versus large IT benefits, one finding is clear: **A country’s software piracy rate is a key differentiator among countries that enjoy vast IT economic benefits and those that have yet to unlock them** (see Figure 4).

In general, there is an inverse relationship between a country’s software piracy rate and the size of its IT sector as a percentage of GDP. Thus, the lower the software piracy rate, the higher the IT related benefits, including IT-generated taxes. By contrast, the larger the software piracy rate, the smaller the IT sector and the jobs, taxes, and businesses that come with it. For example, the 11 countries in the global survey with the smallest IT sectors (comprising less than one percent of their country’s GDP) have an average 70 percent piracy rate—twice the weighted global average. These 11 countries include: Venezuela, Kuwait,

Countries With Lowest Piracy Rates Receive Greatest IT Tax Benefits

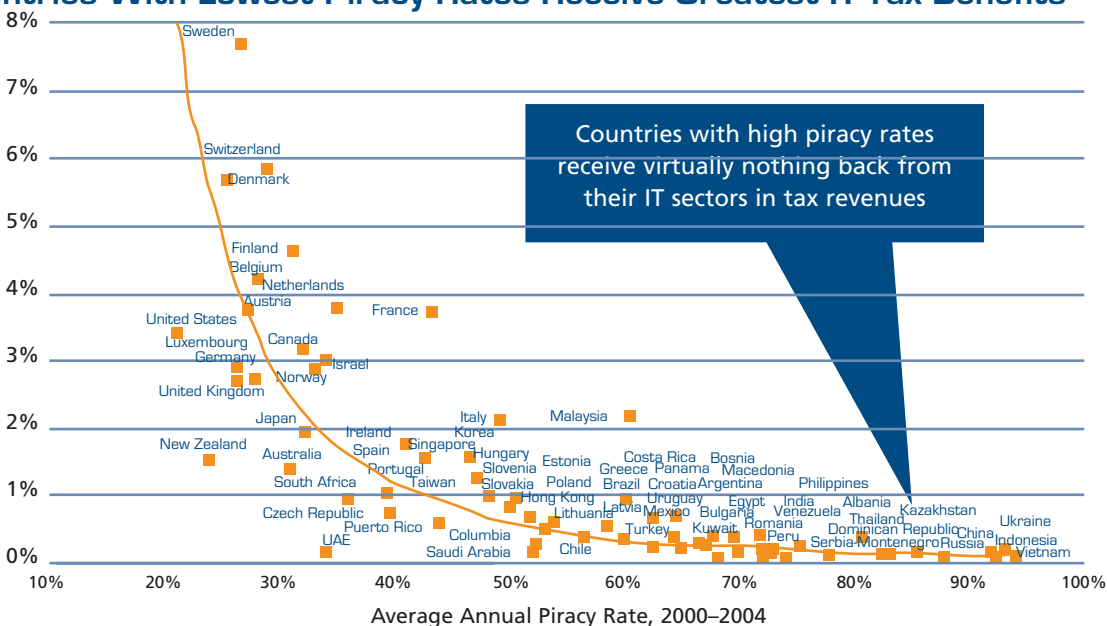


Figure 4: Source IDC Data

Saudi Arabia, the Dominican Republic, Peru, Turkey, Puerto Rico, Egypt, Albania, Indonesia and Kazakhstan. By contrast, the 11 countries with the largest IT sectors in the global survey (topping three percent of their respective GDPs) average only 29 percent piracy—six points less than the global 35 percent weighted average. These countries include: Singapore, Sweden, the United States, the United Kingdom, Switzerland, Denmark, South Africa, Luxembourg, Finland, Australia and New Zealand.

Countries that have lowered their piracy rates have gained more jobs, more taxes and more economic growth. Even with low piracy, the impact of cutting piracy further is not inconsequential. For example, even in the United States where software piracy is the lowest in the world at 21 percent, more than one in every five copies of PC software in use is illegitimate. Low piracy rate countries, with generally large IT sectors, could see enormous gains from piracy reductions because the impact will ripple through their already large IT sectors.

- **United States** The world's lowest software piracy rate has already helped the United States develop the world's largest software industry. Yet, because its IT sector is so big the United States would gain more than any other nation in the global survey from a 10-point piracy cut over four years—boosting its economy by \$125 billion.
- **United Kingdom** The United Kingdom has long benefited from the high software demand and low piracy. Still, the United Kingdom could see the European Union's (EU) largest benefits from piracy cuts—adding nearly \$19 billion to its economy
- **Japan** With one of the lowest piracy rates in the Asia Pacific region, Japan enjoys the largest IT sector in that region. Nonetheless, a 10-point cut in piracy would add roughly \$24 billion to the economy—the third largest benefit among the countries included in the global survey.
- **Singapore** Buoyed by large software demand, Singapore now enjoys the benefits of having the world's largest IT sector as a percentage of its GDP. Singapore is primed for further reductions in software piracy given its new copyright legislation effective January 1, 2005 and the government's efforts with industry to increase public awareness about the benefits of software management. A 10 point reduction over four years would help increase the size of Singapore's IT sector by nearly \$1 billion and add an additional 3,700 jobs.

IT Growth Accelerates With Software Piracy Reductions

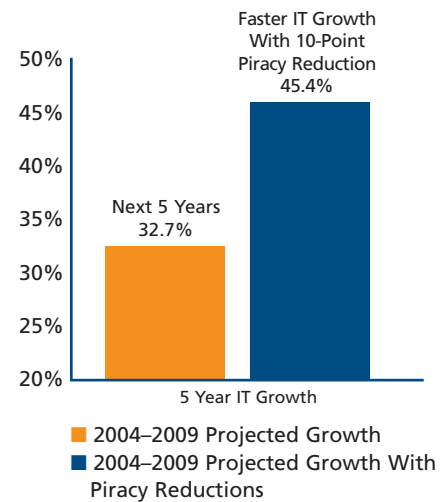


Figure 5: Source IDC Data

2. Cutting Piracy Can Generate Faster IT Growth

Software piracy cuts are one key to achieving faster IT growth and benefits. The faster the IT sector grows, the faster it can generate new jobs, taxes, and economic benefits. The IT sector is already projected to see rapid 33 percent growth between 2004 and 2009, according to IDC. However the sector could instead grow 45 percent larger over the same period with the help of a 10-point reduction in software piracy (see Figure 5). Countries could generate an average 12 points of additional growth between 2004 and 2009 with a 10-point reduction in piracy.

Four Out of Five Countries Could See Greater Than 30 Percent IT Growth

Every country in the survey that cuts piracy can grow its IT sector faster—adding jobs and other benefits faster too. Better than four out of five countries (62 of 70) would see greater than 30 percent combined IT sector growth. Individually, country growth rates would range from 16 percent for Panama to 349 percent for Kazakhstan (see Table 1).

Faster growth can mean expansive growth:

- **China** Faster IT growth from piracy cuts could help China triple the size of its IT sector to gain more than any other country in the global survey (growing 209 percent larger rather than 85 percent without piracy reductions). As a result, China could create 2.6 million new IT jobs by 2009—as many IT jobs as

Top 15 Projected Fastest Growing IT Sector Can Grow Faster

With 10-Point Piracy Reductions
2004–2009 Growth Rate

	Growth Without Reduction	Growth With Piracy Reduction	Growth Differential
Kazakhstan	292%	349%	57%
Russia	136%	230%	94%
China	85%	209%	124%
Vietnam	108%	169%	62%
India	137%	164%	28%
Ukraine	101%	158%	57%
Indonesia	79%	152%	73%
Argentina	106%	137%	31%
Albania	108%	137%	29%
Serbia-Montenegro	88%	125%	37%
Turkey	106%	119%	13%
Bulgaria	80%	103%	23%
Philippines	81%	95%	14%
Kuwait	65%	92%	27%
Malaysia	78%	91%	14%

Table 1

the United States has been able to create through 30 years of IT leadership.

- **Russia** Russia's IT sector could grow 230 percent instead of 136 percent and see the world's fourth largest benefits from software piracy cuts—more than tripling the size of its IT sector.
- **India** India enjoys a dynamic, export-led software and software services industry that has positioned it to achieve the second fastest growing IT sector in the global survey between 2004 and 2009. A 10 point drop in the piracy rate over from 74% to 64% would have a tremendous impact on the domestic front, enabling the IT sector (excluding software and services exports) to grow from \$7.4 billion to \$19.5 billion.

3. Faster IT Growth Can Increase Global Economic Output

Faster IT growth from piracy reductions means increased contributions to the global economy.

A 10-point drop in the global piracy rate of 35% over 4 years would add:

- **2.4 million new jobs**
- **\$400 billion to economic growth**
- **\$67 billion in tax revenues**

IT Job Growth Accelerates With 10-Point Reduction in Piracy

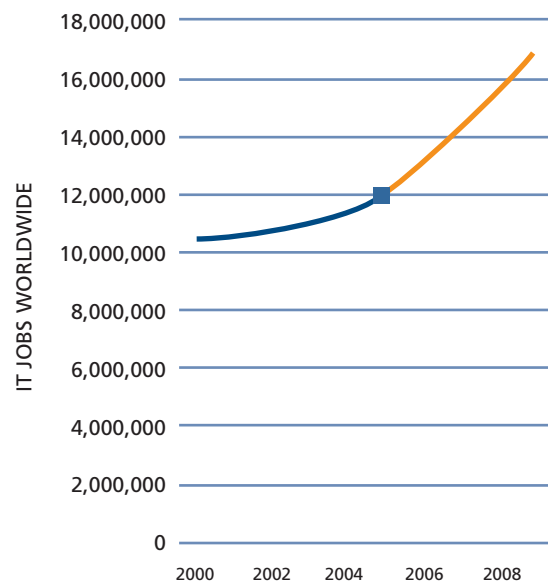


Figure 6: Source IDC Data

Reducing software piracy from the global weighted average of 35 percent to 25 percent over four years could create an additional 2.4 million IT jobs, add more than \$400 billion to economies, and pump an additional \$67 billion into government tax coffers. Every one-point drop in the piracy rate corresponds roughly to a \$40 billion increase in economic output. The greater the piracy reduction, the greater the economic benefit.

IT growth due to piracy reduction would help every country create more jobs for its workforce, create more opportunities for entrepreneurs, create more value for consumers and add more government services with an expanded tax base. As the software industry becomes bigger (helped by piracy rate reductions), those benefits increase (see Figure 6).

4. Countries With the Highest Piracy Rates Have the Most to Gain

Countries with the highest piracy rates today can unleash the greatest economic benefits tomorrow from piracy reductions. A country's relative gains from piracy reductions can be ranked by comparing the percentage gain in the size of a country's IT sector from software piracy cuts, to what it would achieve without the cuts by 2009. The results show that, in general, countries with the highest piracy rates could enjoy the greatest relative benefits from piracy reductions (see Figure 7). Because of their high piracy rates, even a 10% drop in piracy would have a

Countries With the Highest Rates of Piracy Benefit Most from Piracy Reductions

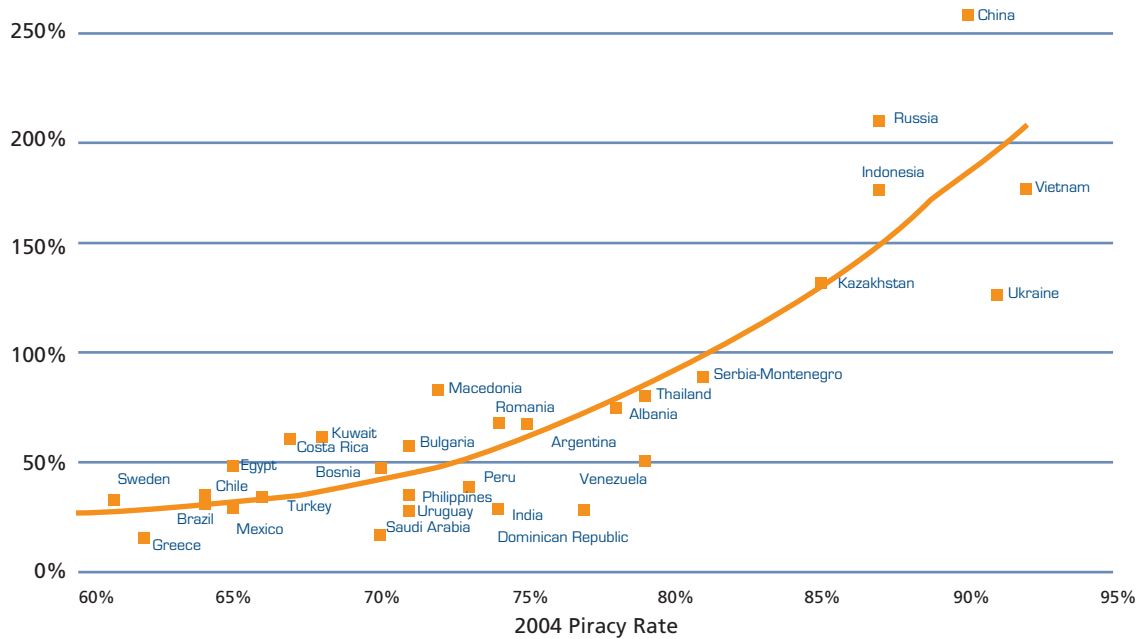


Figure 7

major impact on the legitimate software market. For example, the top seven highest piracy rate countries worldwide are also among the top seven greatest potential beneficiaries in the global survey (see Table 2). Countries like China, Russia, Indonesia, Vietnam, Kazakhstan, Ukraine and Serbia-Montenegro gain the largest relative benefits in the global survey (see Table 2). On a relative basis, these high-piracy rate countries could create the most jobs, most new

opportunities, and most tax revenues—and could see the greatest IT sector growth.

5. Every Region Benefits

Every country and every region of the world would gain substantial new benefits from software piracy reduction (see Table 3). Non-EU Europe, followed by Asia Pacific and Latin America, would see the greatest relative benefits from piracy reductions.

European Union. With the largest IT sector in the world behind North America, the European Union could add \$88 billion to its combined economies from a 10-point cut in software piracy. The European Union saw demand for software increase in the region by 12 percent between 2000 and 2004, producing the third fastest regional software growth rate over the same period. While the European Union already enjoys the world's second lowest piracy rate, it could still realize the third largest benefit from further software piracy reductions, after the Asia Pacific and North America regions. The European Union is also home to countries with a tradition of low piracy rates which have nurtured larger IT sectors. For example, Sweden, Luxembourg, the United Kingdom, and Denmark are among the five lowest piracy rate countries and

7 Highest Piracy Rate Countries Gain 7 Largest Relative Benefits

Country	Piracy Rank	2004 Piracy Rate
China	3	90%
Russia	5	87%
Indonesia	4	87%
Vietnam	1	92%
Kazakhstan	6	85%
Ukraine	2	91%
Serbia-Montenegro	7	81%

Table 2 Ranked in order of country with largest relative global benefit, compared to global piracy ranking and 2004 piracy rate

Every Region Benefits from GDP, Tax, Job Benefits, and Faster Economic Growth

Region	Benefit of 10-Point Reduction in Software Piracy						2004–2009 Growth W/ IT Piracy Reduction
	2004 Piracy Rate	Contribution to GDP (\$M)	New Jobs	Additional Tax Revenue (\$M)	Relative Economic IT Benefit	2004–2009 Growth	
Asia-Pacific	53%	\$135,118	2,010,019	\$13,833	47%	34%	59%
European Union	35%	87,683	155,541	24,848	19%	30%	38%
Latin America	66%	11,621	43,623	1,207	33%	46%	61%
Middle East & Africa	58%	5,393	13,245	669	24%	54%	64%
Non-EU Europe	44%	32,085	58,106	2,869	77%	67%	104%
North America	22%	131,666	119,991	23,170	15%	30%	39%
World	35%	403,565	2,400,525	66,597	24%	33%	45%

Table 3: Source IDC Data

are also among the five countries with the largest IT sectors as a percentage of their overall economies. However France, Greece and Italy—long stymied by high piracy rates—could see tremendous growth from piracy reductions.

Non-EU Europe. Non-EU Europe stands to gain the largest relative benefit of all regions from a 10-point reduction in piracy. The region’s IT sector could double in size and generate nearly 210,000 additional IT jobs. Non-EU Europe’s software sector grew faster than all other regions over the last four years and is projected to grow faster than any other region’s software sector over the next four years. With the help of piracy cuts, the region could achieve the fastest IT sector growth of all regions in the world—growing 104 percent instead of 67 percent between 2004 and 2009. Non-EU Europe also includes five of the 10 countries globally that would gain the biggest relative benefits from a 10-point cut in software piracy—Ukraine, Russia, Kazakhstan, Serbia-Montenegro, and Albania. The three countries in non-EU Europe with the lowest piracy rates—Switzerland, Norway, and Croatia—are also the three countries with the largest IT sectors as a percentage of their economies.

Asia Pacific. Asia Pacific’s IT sector could pump another \$100 billion into its economies—in dollar terms, gaining more benefits than any other region from piracy reductions. A piracy rate 18 points higher than the world average has limited the region’s software sector to the smallest software sector as a percentage of its IT sector in the world. The software sector is poised to see unprecedented growth—growing three times faster over the next four years as it did in the last four. With the help of piracy reductions, the region’s IT sector is poised to generate 3.5 million more jobs within the next four

years—more than every other region of the world combined. The three countries within the Asia Pacific region with the highest piracy rates—Vietnam, China, and Indonesia—are also the largest relative beneficiaries of piracy reductions.

Latin America. With the highest software piracy rate of any region, Latin America’s IT sector is also the smallest as a percentage of the economy in any region. Latin America’s IT sector has nonetheless grown into a \$25 billion per year industry supporting 48,000 businesses, employing nearly 600,000 workers, and generating \$6.9 billion a year in taxes. Yet, those countries in the region with lower piracy rates enjoy the benefits of expanding IT sectors. For example, Colombia, Chile, and Mexico are among the five lowest piracy rate countries in the region and are also among the five countries with the fastest software sector growth between 2000 and 2004. Countries with the highest piracy rates in the region—like Venezuela, Argentina, and Peru—stand to benefit most from further piracy reductions.

Middle East and Africa. The Middle East and Africa’s small but growing IT sector could see tremendous benefits from piracy reductions. Countries in the region with a history of low piracy have nurtured larger IT sectors. For example, Israel, the United Arab Emirates, and South Africa have the three lowest software piracy rates and enjoy the three largest IT sectors as a percentage of their overall economies. Countries with the highest piracy rates, like Kuwait and Egypt, are poised to see some of the greatest benefits from piracy reductions.

North America. North America’s \$423 billion-a-year IT sector—the largest in the world—consists of 325,000 businesses, employing 3 million people, and generating \$425 billion a year in taxes. North America

already benefits from the lowest piracy rate, the largest software sector and the largest IT sector in the world. In fact, Canada and the United States today account for half of the world's software sector. Despite the lowest piracy rate, because of its size, the region still stands to realize the second largest benefit in contribution to GDO from piracy reductions in the world—\$132 billion. Overall, a 10-point drop in North America's piracy rate could also create 120,000 IT jobs and generate \$23 billion in additional tax revenues for government benefits and services.

III. How to Achieve These Benefits

Who Wins & Why

Reducing piracy delivers both direct and indirect benefits. When software piracy is lowered, consumers, entrepreneurs, workers, governments and economies win. Lower software piracy can result in more jobs for workers, expanded choice for consumers, productivity gains for business, and rising standards of living around the globe. Reducing the rate of software piracy can boost economies and create new jobs and business opportunities that generate spending and new tax revenues.

- **Consumers** Consumers benefit from more choices and greater competition when piracy is reduced. By using legal rather than illegal software, consumers gain customer support services, more reliable products, software upgrade capabilities and access to patches that protect users against malicious attacks. Less piracy can also mean faster improvements in products and more choices in the marketplace.
- **Workers** Workers benefit from more higher-paying jobs when piracy is reduced. A 10-point reduction in piracy between 2004 and 2009 could create 2.4 million more IT industry jobs for workers. IT jobs generally pay better than other private sector jobs.
- **Innovators** Innovators benefit because their creative spirit can be financially rewarded. They gain more freedom to create without fear of theft. Software innovators invest hundreds of millions of dollars every year and immeasurable amounts of creativity in designing, writing and bringing new products to market. They depend upon the revenue received from those products to obtain a return on their investment and to fund development of the next new things.
- **Entrepreneurs** A multitude of different businesses benefit, beyond those that create software. When piracy is reduced, new opportuni-

ties are created in packaging, marketing, sales, distribution, customization and servicing of products. IDC's data shows between 2000 and 2004, more than 50,000 IT businesses were created around the globe. Further piracy reductions can build upon the expected 100,000 new IT businesses which are projected to be created between 2004 and 2009. Every step forward in reducing piracy creates more local companies, which in turn hire more workers, who pay more taxes, and drive greater economic growth.

- **Governments** Governments benefit too from new revenues for needed services. Each single-point reduction in the global piracy rate raises more than \$6 billion in additional tax dollars. A 10-point drop in piracy over four years would create \$67 billion in additional tax benefits for governments which could be used to provide an additional:²
 - 33 million computers for schools
 - 45 million people with health care
 - 6.6 million people with college educations
 - 11 million children with schooling
 - 435 million people with job training benefits, or
 - 132 million families with services like day care, maternity, or home help services

Steps Governments Can Take to Take Advantage of These Benefits

Ultimately, it is the intellectual power of a workforce—and the ideas produced—that propels IT sector growth. When their works are not fully protected, the creative ability of the workforce can be stifled, and the IT sector cannot realize its full promise and potential. Software pirates not only steal software, they steal the jobs and tax revenues and economic growth that accompany a vibrant software sector. Thus, in order to unlock the vast new jobs, business opportunities, revenues and economic growth that IT sectors can produce, governments need to take tangible steps to protect intellectual property and reduce software piracy.

The shadowy network that brings pirated software to market is elaborate. In countries rich and poor, the rewards to pirates are often balanced by minimal risks. Even small-time bootleggers can find clever ways to market their illegitimate wares. Too often, laws are insufficient to crack down on these unscrupulous vendors. And, when anti-piracy laws are enforced, the punishment can often be less severe than that needed to be an effective deter-

² based on Organisation for Economic Co-operation and Development cost estimates for government services.

rent. The use of unlicensed software within organizations is also a widespread problem and in fact is responsible for the majority of losses to the industry. Software piracy on the Internet is perhaps the most rapidly growing form of software piracy. Effective legal remedies for these forms of piracy are also necessary but are often not sufficiently contained in national legislation.

Software piracy will not diminish if nothing is done about it. The key to stemming piracy comes from education and proactive, government-led efforts. Piracy rates can be reduced by creating stronger legal protection for software, increasing the effectiveness of enforcement, targeting resources more effectively, leading by example, educating and improving public awareness and partnering with industry.

Five Concrete Steps for Reducing Software Piracy

1. **Implementing the WIPO Copyright Treaty.** In 1996, in direct response to the growing threat of Internet piracy, the World Intellectual Property Organization (WIPO) adopted new copyright treaties to enable better and more effective enforcement against digital and online piracy. An estimated one billion people around the globe have Internet access—increasing the power and potential of software but also opening new doors for pirates to distribute their wares. In order to ensure protection of copyrighted works in the digital age, countries need to update national copyright laws to implement the obligations of the WIPO copyright treaties. Among other things, these measures make sure that copyrighted software cannot be pirated by ensuring that protected works are not made available online without the author's permission, and that copy protection tools are not hacked or circumvented. Many countries have already taken steps to improve and enforce their laws. However, there is still more progress that can be made.
2. **Creating Strong and Workable Enforcement Mechanisms as Required by TRIPS.** Strong copyright laws are essential, but meaningless without effective mechanisms to enforce them. Governments must fulfill their obligations under the World Trade Organization's (WTO) Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPs) by adopting and implementing laws that meet international norms for IP rights protection and enforcement.
3. **Stepping Up Enforcement With Dedicated Resources.** Too often, software thieves are not treated as seriously as other criminals, and the punishment is too insignificant to be an effective deterrent. Countries can elevate their enforcement of intellectual property by:
 - a) creating specialized intellectual property enforcement units at the national, rather than local levels, and providing dedicated resources to investigate and prosecute intellectual property theft,
 - b) increasing cross-border mutual cooperation among police and other enforcement agencies to improve coordination among law enforcement in various countries, and
 - c) supporting training of law enforcement and judiciary officials and providing better technical assistance to ensure the people on the front lines of piracy enforcement are equipped with the tools they need to deal with the changing nature of intellectual property theft.
4. **Increasing Public Education and Awareness.** Reducing software piracy often requires a fundamental shift in the public's attitude toward software piracy. Public education is a critical component of any successful effort. Governments can increase public awareness of the importance of respecting creative works by informing the public about the consequences of disobeying the law, expressing their intent to strictly enforce those laws and encouraging the use of legitimate software. Some of the most successful efforts stem from comprehensive public education campaigns launched jointly by government and industry.
5. **Leading by Example.** Because governments are the largest users of software in the world, one of the most effective mechanisms for public persuasion stems from governments themselves sending a strong and clear message that the government will not tolerate piracy, and is actively managing its own software assets. This can be achieved by implementing software management policies to set an example the private sector should follow. For a government to demonstrate its commitment to enforcing intellectual property protections in the private sector, it must demonstrate that it is willing to do so in the public sector as well.

Proven Policies to Stop, Stall and Stifle Software Piracy

Many countries have already taken critical steps to reduce their software piracy rates and reap the economic rewards.

- **Ireland:** In the 1990s, Ireland had one of the worst piracy rates in the European Union—attributable to the outdated state of Irish copyright law. In 2001, the Irish government took concrete action by passing a new, modern Copyright Act, regarded by BSA as being the paradigm of 21st century copyright law. Since its adoption, enhanced recognition and respect for copyright, particularly in the software arena, has developed with demonstrable effects on the rates of piracy.
- **Italy and Greece:** Because Italy and Greece suffered huge tax losses from revenues that would have been earned had unlicensed use of software been properly abated, both the Greek and the Italian governments increased their enforcement efforts with specific initiatives. Both countries have engaged sophisticated economic police units—in Italy, Guardia di Finanza and in Greece, the Special Audits Agency—to actively investigate the tax avoidance implications of intellectual property rights infringement, particularly in unlicensed business software.
- **Nordics:** Sweden, along with Denmark, Finland and Norway, had no “civil search and seizure” remedy during most of the 1990s. The existence of a civil search and seizure remedy is an essential enforcement tool utilized by intellectual property rights holders—including the software industry—to protect their rights. The introduction of a TRIPS-compliant civil search and seizure remedy in Sweden and across the Nordic region has contributed to the ability of intellectual property rights holders to conduct effective, targeted and proportionate enforcement action against those who infringe their rights.
- **United Kingdom:** The United Kingdom’s government has increased its focus on software piracy. It created two major initiatives: the Patent Office IP Crime Group, set up to combat intellectual property crime, integrating support from industry and enforcement organizations; and the Creative Industries IP Forum, established to focus on creative organizations impacted by the increase in piracy levels. The UK government also endorsed an IP Crime Congress in 2005, which included participation from the Patent Office, The UK Home Office, the Department of Trade and Industry, HM Customs and Excise, the Assets Recovery Agency and the Risk and Security Management Forum.
- **Saudi Arabia:** To combat the 52% piracy rate in Saudi Arabia, the Ministry of Interior collaborated with BSA on several communication campaigns targeting businesses, end users and resellers. The Ministry produced a poster for distribution in computer stores that warns buyers of the dangers of pirated products and highlights the legal consequences of using illegal software. The Ministry also distributed an “Information Guide to the Copyright Law” which provides background on copyright law, the enforcement efforts of the Ministry, the dangers of software piracy, and the rights and responsibilities of the end user as a means of raising awareness about the laws that protect intellectual property in Saudi Arabia.
- **Taiwan:** The Taiwanese government has led a concerted effort to tackle software piracy. The government declared 2002 as the “Action Year for IPR Protection”—stepping up its enforcement efforts against software piracy and joining with industry to promote greater awareness about software management. In 2003, the government announced the “IPR Three-Year Action Plan,” which included software-related policy, education and enforcement initiatives. The copyright law was strengthened by amendments in 2003 and again in 2004. In 2004 alone, the government, working with industry, launched a software legalization campaign that included six software asset management seminars in four cities and sent educational direct mailers to 30,000 businesses. On conclusion of the educational outreach portion of the campaign, an enforcement campaign was conducted to remind the corporate sector of the government’s resolve to weed out software piracy. The enforcement actions led to a number of successful criminal and civil cases relating to the use of infringing software in the workplace. The determination of the government to publicly protect intellectual property rights, and the support of the courts and legal system, has been integral to the reduction in the piracy rate in Taiwan. These reductions have helped fuel a 21 percent increase in the number of Taiwanese software companies and a 35 percent increase in software jobs.

Project Summary and Methodology

Background

In early 2003, IDC completed its first project for the Business Software Alliance (BSA) on the economic impact of lowering software piracy. That work relied on a body of work begun in 2002 on the economic impact of Information Technology on 57 individual countries in terms of job creation, company formation, GDP growth and tax revenues. The results were distributed across the globe.

This project is an update to that earlier work including an additional 13 countries.

Since that first project, the IT industry has changed—IDC's five year forecasts are lower, the disparity between emerging and developed countries in terms of IT spending growth are higher, and PC software piracy is a point or two lower.

But as with that project, the impact of lowering software piracy is significant in terms of the increase in jobs, GDP, and tax revenues that would result. As in the previous study, the majority of benefits from lowering piracy occur in-country. This is because even U.S.-based software is locally delivered, installed, and serviced.

The primary output of the Piracy Impact Model (PIM) is the quantification of the jobs, tax revenues, and economic growth that could be gained by lowering a country's software piracy by 10-points over four years. The objective is to create a uniform measure of the benefits that accrue to a country that tightens and enforces its intellectual property laws and educates its citizens on the benefits of doing so.

Economic impact methodology

a. IT Spending—spending by consumers, businesses, governments, or educational institutions on information technology, including hardware, software, services, and data networking, as measured in the IDC Worldwide IT Spending Trends reports (The "Black Book"). This spending excludes all telecommunications services revenues and some smaller emerging technology areas such as videogames (including PC gaming software).

b. Tax Revenues—potential VAT or sales tax revenues from the sale of IT hardware, software, or services and business and personal income and social taxes.

The basic approach was to first take total income, profit, and social taxes within a country and determine what proportion was attributable to IT activities. The country totals for taxes and employment

were gathered from the OECD and other published statistics, the total IT employment or sales were taken from the IDC Economic Impact Model. Adjustments were made then based on assumptions that IT employees have higher income than the average employee in a country. IT-related VAT taxes were calculated by analyzing the total IT spending in a country and determining what portion would be subject to rebate, since VAT taxes are collected only on final outputs. Since most IT spending is by business, not much VAT is paid on IT. The non-rebated portion was derived from IDC data on IT spending by vertical market.

IDC reviewed the data including examining independent estimates of local IT salaries, with input from local analysts as well as IDC's and IDG's (IDC's parent company, operating in over 65 countries) Human Resource and Tax departments. These gave IDC additional sources on salary levels, income tax rates, and corporate income tax rates for various countries. IDC looked then at the average percentage of salary paid in taxes, relative tax percentages (country to country), salary per capita compared to GDP per capita, etc. In this way, the tax revenue model was calibrated for the final input to the PIM.

c. IT Employment—the number of people employed (full-time-equivalent) in hardware, software, services, or channel firms. The definition excludes employment in occupations in IT-related industries, such as web graphics design, venture capital, trade magazine publishing, etc.

Headcounts by category were first modeled based on estimated IT revenue per employee for hardware, software, or services companies based on standard ratios, and by levels of spending per employee by technology type for channels employees and IT professionals.

IDC had excellent input for modeled employment figures, including published IT headcount figures in Europe, a model created in Asia Pacific, and IDC published data in the US from the late 1990s, as well as the output from the 2003 study, all of which had been validated by local government and industry officials.

d. Contribution to GDP—end user spending or business investment in hardware, software, or services—essentially IT spending from all sources, as measured in IDC's Worldwide IT Spending Trends reports. Although GDP is a measure of government and consumer spending plus business investment plus exports minus imports, for the purposes of this project IDC did not account for exports or imports. Thus, the term "contribution" does not mean a direct dollar input to GDP.

e. Local Vendor Revenues—revenues to vendors that are indigenous or headquartered in the country.

In determination of the economic impact of IT, IDC developed an estimate of the percent of IT spending accruing to local vendors. This was based on IDC's understanding of the local market from in-country research and published reports. It was also checked with government statistics on imports and exports of hardware and software, and with the IDC local analysts during calibration and review exercises. In most countries, hardware systems were imported (although local suppliers might provide components), software was imported, but most services and channels were local.

Piracy impact methodology

a. Piracy—the unauthorized copying, reproduction, usage, or manufacturing of packaged software. This unauthorized use can run the gamut from unauthorized copying or downloading of software or purchasing software copied illegally, to corporate overuse (more clients than paid for) of licensed software.

b. Piracy Rate—the percentage of software installed in a country without a license, as measured by the most recent BSA study, conducted by IDC. The piracy rates used were for calendar year 2004. The study is available at www.bsa.org/idcstudy

c. Percent Lower piracy rate—a theoretical future piracy rate by taking the current rate and lowering it by X percentage points, e.g., if the piracy rate is 50%, lowering it by 10-points to 40%. Specifically, the study focuses on the impact of a 10-point reduction in the BSA software piracy rate achieved through a 2.5 point drop per-year from 2004 to 2009.

d. Piracy Losses—the theoretical losses from piracy in terms of revenue to software vendors, software-related revenues to services firms, and software-related revenues to channel players. Employment losses are calculated from revenue losses, and only apply to employment in the IT industry, not IT professionals in end-user organizations (although IDC believes there is some impact.) Tax revenue losses

are calculated from revenue losses (VAT and corporate income tax) and employment losses (income and social taxes). The software losses are based on the piracy rate and equal the value of software installed and not paid for, adjusted by IDC's software analysts to account for software in a country (such as enterprise and server software, not measured in the annual BSA study).

e. Piracy Benefit—the difference in "losses" from different piracy rates, with the lesser loss subtracted from the larger loss.

f. Piracy Effects—the method by which the study calculates the impact of piracy on an industry measure. The study calculated different effects from piracy on software, services, and channel spending and employment, and tax revenues. In the case of software, IDC used a linear relationship between a falling piracy rate and growing software spending. (E.g., if a country has a 50% piracy rate and \$100 million software spending, lowering the rate to 0% would create a theoretical \$200 million in software spending.)

While not every piece of formerly pirated software will be purchased if piracy rates go down—some will be substituted, some not used—at the same time lower piracy rates yield more economic activity that stimulates more software production and purchase. The two countervailing forces seem to cancel each other out. This is the conventional assumption for most previously published piracy studies.

IDC confirmed this by analyzing the ratio of software spending to hardware spending for the countries in the study, and found that, in general, countries with higher piracy rates had a lower software-to-hardware ratio. Adding calculated software gains from lowering piracy 10 points often led to a software-to-hardware ratio that was still lower than countries with a piracy rate at the new target.

For software-related services and channels losses, IDC assumed that these firms could still obtain some revenues on pirated software. The vulnerable portion of software-related revenue varied by country.

FAQs

Q. What is the strength of IDC's methodology?

A. First, it is based on what IDC knows well—IT spending and IT markets. Second, it is the same for each country, none of which define the industry the same way in their own statistics. The ability to compare countries enhances IDC's confidence in accuracy. Third, IDC has been meticulous in its definitions and description of methodology.

Q. What is not covered in this study?

A. IDC did not look at the productivity impacts from the use of IT or software, although using internal resources to support pirated software clearly has some impact on a using organization. Nor did IDC quantify the economic benefits of technology-driven economic growth, even though other studies indicate that a 10% rise in IT spending growth can lead to a 13% rise in GDP growth.

Q. What makes IDC's project different from other studies?

A. There are a number of methodology differences, but mostly the use of IDC's Worldwide IT Spending Trends report numbers as a basis for the Economic Impact Model gives IDC an extremely solid basis for developing economic and piracy impact calculations. Also, IDC does not include what economists call "indirect" economic impacts—such as benefits to travel or logistics companies serving IT firms.

Q. If piracy rates are lowered, won't users simply stop using the software that was once "free"?

A. Yes, some will not use the previously pirated software, as some will substitute other software. But some will pay for it. However, a lower piracy rate will stimulate more economic activity (which can pay for more software), as well as more software production, more marketing, more R&D, and better products, which will spur more demand. IDC believes that these effects counter one another, making a linear relationship between lower software piracy and higher software-related spending, employment, and tax revenue justifiable, especially since IDC is working within a narrow range of piracy change (10 points). We have confirmed this by looking at the ratio of software spending to hardware spending in the countries in the study. Countries with higher piracy rates tend to have lower software-to-hardware ratios. In many cases, lowering the piracy rate by 10% to that of another country still yields a new level of software spending that is below that of the country with the lower current piracy rate.

Appendix Data

Piracy Rates and Benefits

Benefits of A 10-Point Piracy Reduction
(Reducing piracy 2.5% a year from 2006-2009)

Country	Piracy Rates		IT As Part of The Economy		Projected Growth		Additional Local Industry Revenues (\$M) With Piracy Reductions				
	2003	2004	IT % GDP 2004	IT Taxes % GDP 2004	IT Growth w/o piracy reduction	IT Growth 2004 - 2009 w/ Piracy Reduction	2006	2007	2008	2009	Total
Asia Pacific											
Australia	31%	32%	3.1%	1.3%	23%	30%	\$ 308.7	\$ 661.4	\$ 1,054.3	\$ 1,479.0	\$ 3,503.5
China	92%	90%	1.7%	0.1%	85%	209%	\$ 5,655.3	\$ 12,077.7	\$ 19,861.6	\$ 29,242.7	\$ 66,837.3
Hong Kong	52%	52%	2.0%	0.5%	21%	27%	\$ 52.5	\$ 109.2	\$ 172.3	\$ 242.4	\$ 576.3
India	73%	74%	1.1%	0.1%	137%	164%	\$ 416.0	\$ 924.7	\$ 1,542.3	\$ 2,294.7	\$ 5,177.7
Indonesia	88%	87%	0.6%	0.1%	79%	152%	\$ 170.2	\$ 321.3	\$ 464.3	\$ 616.7	\$ 1,572.5
Japan	29%	28%	2.2%	1.9%	13%	20%	\$ 1,824.8	\$ 3,724.4	\$ 5,683.3	\$ 7,719.3	\$ 18,951.8
Korea	48%	46%	1.8%	1.5%	40%	48%	\$ 188.2	\$ 402.2	\$ 645.8	\$ 926.6	\$ 2,162.8
Malaysia	63%	61%	2.5%	2.3%	78%	91%	\$ 81.2	\$ 170.9	\$ 270.1	\$ 386.5	\$ 908.6
New Zealand	23%	23%	3.1%	1.5%	29%	36%	\$ 54.1	\$ 115.6	\$ 185.9	\$ 269.3	\$ 624.9
Philippines	72%	71%	1.2%	0.1%	81%	95%	\$ 27.8	\$ 59.5	\$ 97.1	\$ 140.9	\$ 325.4
Singapore	43%	42%	3.5%	1.2%	18%	24%	\$ 52.9	\$ 110.5	\$ 171.9	\$ 237.5	\$ 572.7
Taiwan	43%	43%	2.0%	1.0%	13%	18%	\$ 54.6	\$ 115.2	\$ 182.7	\$ 255.9	\$ 608.3
Thailand	80%	79%	1.4%	0.1%	64%	91%	\$ 88.7	\$ 186.2	\$ 297.4	\$ 426.8	\$ 999.2
Vietnam	92%	92%	1.1%	0.1%	108%	169%	\$ 77.5	\$ 143.9	\$ 213.4	\$ 292.0	\$ 726.8
Subtotal	53%	53%	2.0%	1.3%	34%	59%	\$ 9,052.6	\$ 19,122.4	\$ 30,842.4	\$ 44,530.3	\$ 103,547.8
European Union											
Austria	27%	25%	2.4%	3.7%	30%	36%	\$ 121.1	\$ 248.5	\$ 380.3	\$ 516.6	\$ 1,266.6
Belgium	29%	29%	2.7%	4.3%	29%	36%	\$ 197.8	\$ 404.1	\$ 621.8	\$ 849.3	\$ 2,073.1
Czech Republic	40%	41%	2.6%	0.8%	47%	58%	\$ 129.6	\$ 212.8	\$ 212.8	\$ 304.1	\$ 706.1
Denmark	26%	27%	3.2%	5.7%	29%	37%	\$ 171.6	\$ 346.3	\$ 529.8	\$ 732.4	\$ 1,780.2
Estonia	54%	55%	2.0%	0.7%	48%	58%	\$ 4.1	\$ 8.4	\$ 13.0	\$ 18.1	\$ 43.6
Finland	31%	29%	3.1%	4.7%	34%	42%	\$ 118.5	\$ 244.3	\$ 375.3	\$ 512.5	\$ 1,250.6
France	45%	45%	2.6%	3.7%	27%	36%	\$ 1,350.7	\$ 2,722.2	\$ 4,091.8	\$ 5,520.1	\$ 13,684.7
Germany	30%	29%	2.5%	2.7%	24%	31%	\$ 1,358.1	\$ 2,775.5	\$ 4,257.1	\$ 5,746.3	\$ 14,137.0
Greece	63%	62%	1.1%	0.9%	53%	59%	\$ 26.1	\$ 52.0	\$ 77.9	\$ 105.1	\$ 261.1
Hungary	42%	44%	2.1%	1.3%	45%	55%	\$ 41.3	\$ 89.7	\$ 145.4	\$ 207.2	\$ 483.6
Ireland	41%	38%	1.5%	1.7%	44%	50%	\$ 44.2	\$ 91.4	\$ 140.8	\$ 189.7	\$ 466.2
Italy	49%	50%	1.6%	2.0%	30%	38%	\$ 656.1	\$ 1,333.5	\$ 2,026.7	\$ 2,729.3	\$ 6,745.7
Latvia	57%	58%	1.8%	0.6%	60%	72%	\$ 5.1	\$ 10.4	\$ 16.2	\$ 22.3	\$ 54.0
Lithuania	58%	58%	1.2%	0.4%	60%	68%	\$ 4.1	\$ 8.6	\$ 13.4	\$ 18.8	\$ 44.9
Luxembourg	27%	27%	3.1%	3.1%	32%	40%	\$ 10.2	\$ 20.9	\$ 32.3	\$ 44.3	\$ 107.7
Netherlands	33%	30%	2.9%	3.7%	30%	38%	\$ 347.5	\$ 717.0	\$ 1,112.3	\$ 1,500.8	\$ 3,677.6
Poland	58%	59%	1.7%	0.6%	67%	82%	\$ 112.6	\$ 248.3	\$ 408.1	\$ 583.1	\$ 1,352.0
Portugal	41%	40%	1.6%	1.0%	37%	42%	\$ 32.3	\$ 65.4	\$ 99.2	\$ 134.1	\$ 331.0
Slovakia	50%	48%	2.0%	0.9%	59%	69%	\$ 15.3	\$ 32.8	\$ 52.8	\$ 80.0	\$ 180.9
Slovenia	52%	51%	1.9%	1.0%	40%	52%	\$ 13.7	\$ 29.1	\$ 46.1	\$ 65.1	\$ 154.0
Spain	44%	43%	1.5%	1.5%	52%	58%	\$ 230.4	\$ 472.8	\$ 724.4	\$ 991.9	\$ 2,419.4
Sweden	26%	26%	3.5%	7.7%	22%	29%	\$ 237.4	\$ 481.1	\$ 749.3	\$ 1,021.8	\$ 2,489.7
United Kingdom	29%	27%	3.3%	2.6%	30%	37%	\$ 1,625.3	\$ 3,310.0	\$ 5,075.6	\$ 6,883.0	\$ 16,893.9
Subtotal	37%	35%	2.5%	2.1%	30%	38%	\$ 6,782.9	\$ 13,841.9	\$ 21,202.6	\$ 28,775.8	\$ 70,603.3

Piracy Rates and Benefits (Continued)

Benefits of A 10-Point Piracy Reduction
(Reducing piracy 2.5% a year from 2006-2009)

Country	Piracy Rates		IT As Part of The Economy		Projected Growth		Additional Local Industry Revenues (\$M)				
	2003	2004	IT % GDP 2004	IT Taxes % GDP 2004	IT Growth 2004-2009 w/o piracy reduction	IT Growth 2004-2009 w/ Piracy Reduction	2006	2007	2008	2009	Total
Latin America											
Argentina	71%	75%	1.3%	0.3%	106%	137%	\$ 83.4	\$ 191.3	\$ 327.7	\$ 504.8	\$ 1,107.2
Brazil	61%	64%	1.8%	0.8%	45%	59%	\$ 335.2	\$ 709.1	\$ 1,127.0	\$ 1,593.7	\$ 3,765.0
Chile	63%	64%	1.3%	0.3%	38%	53%	\$ 38.3	\$ 79.8	\$ 125.0	\$ 175.2	\$ 418.3
Colombia	53%	55%	1.7%	0.7%	47%	59%	\$ 39.2	\$ 83.3	\$ 132.9	\$ 190.5	\$ 445.9
Costa Rica	68%	67%	1.2%	0.2%	45%	72%	\$ 11.9	\$ 25.1	\$ 39.0	\$ 53.8	\$ 129.7
Dominican Republic	76%	77%	0.8%	0.1%	35%	45%	\$ 2.8	\$ 6.1	\$ 9.3	\$ 12.8	\$ 31.0
Mexico	63%	65%	1.1%	0.3%	35%	47%	\$ 185.6	\$ 384.9	\$ 602.3	\$ 840.3	\$ 2,013.1
Panama	69%	70%	1.3%	0.2%	32%	38%	\$ 2.2	\$ 4.7	\$ 7.3	\$ 10.0	\$ 24.3
Peru	68%	73%	0.8%	0.1%	24%	39%	\$ 22.2	\$ 43.6	\$ 64.2	\$ 84.4	\$ 214.4
Uruguay	67%	71%	1.3%	0.2%	41%	51%	\$ 3.7	\$ 7.7	\$ 12.1	\$ 17.0	\$ 40.5
Venezuela	72%	79%	0.9%	0.2%	66%	66%	\$ 36.2	\$ 76.7	\$ 121.1	\$ 171.5	\$ 405.4
Subtotal	63%	66%	1.3%	0.4%	46%	61%	\$ 760.5	\$ 1,612.3	\$ 2,520.6	\$ 3,654.0	\$ 8,547.4
Middle East Africa											
Egypt	69%	65%	0.7%	0.0%	73%	91%	\$ 17.4	\$ 37.0	\$ 58.0	\$ 80.3	\$ 192.7
Israel	35%	33%	2.9%	2.8%	23%	30%	\$ 68.4	\$ 139.1	\$ 212.7	\$ 288.5	\$ 708.6
Kuwait	68%	68%	0.9%	0.0%	65%	92%	\$ 19.4	\$ 41.3	\$ 66.2	\$ 92.3	\$ 219.2
Saudi Arabia	54%	52%	0.9%	0.1%	71%	84%	\$ 47.3	\$ 100.2	\$ 158.4	\$ 222.6	\$ 528.5
South Africa	36%	37%	3.1%	1.0%	42%	49%	\$ 99.8	\$ 217.6	\$ 346.5	\$ 494.2	\$ 1,158.1
Turkey	66%	66%	0.8%	0.2%	106%	119%	\$ 63.1	\$ 131.1	\$ 204.8	\$ 286.5	\$ 685.4
United Arab Emirates	34%	34%	1.5%	0.1%	68%	75%	\$ 22.0	\$ 47.4	\$ 77.3	\$ 110.4	\$ 257.0
Subtotal	55%	58%	1.5%	0.6%	54%	64%	\$ 337.4	\$ 713.7	\$ 1,123.8	\$ 1,574.8	\$ 3,749.6
Rest of Europe											
Albania	78%	78%	0.7%	0.1%	108%	137%	\$ 1.9	\$ 4.4	\$ 7.6	\$ 11.1	\$ 25.0
Bosnia	70%	70%	1.3%	0.1%	66%	84%	\$ 2.9	\$ 6.0	\$ 9.2	\$ 12.7	\$ 30.8
Bulgaria	71%	71%	1.5%	0.3%	80%	103%	\$ 11.8	\$ 24.6	\$ 38.5	\$ 53.8	\$ 128.8
Croatia	59%	58%	2.0%	0.7%	55%	68%	\$ 13.8	\$ 29.5	\$ 46.8	\$ 66.2	\$ 156.3
Kazakhstan	85%	85%	0.6%	0.1%	292%	349%	\$ 16.0	\$ 39.2	\$ 69.5	\$ 108.9	\$ 233.7
Macedonia	72%	72%	1.3%	0.4%	62%	86%	\$ 4.5	\$ 9.5	\$ 14.5	\$ 19.7	\$ 48.3
Norway	32%	31%	2.4%	3.2%	30%	38%	\$ 128.7	\$ 265.0	\$ 406.0	\$ 558.5	\$ 1,358.3
Romania	73%	74%	1.1%	0.2%	62%	90%	\$ 38.0	\$ 81.0	\$ 129.4	\$ 183.9	\$ 432.3
Russia	87%	87%	1.6%	0.1%	136%	230%	\$ 1,205.4	\$ 2,639.6	\$ 4,456.9	\$ 6,749.6	\$ 15,051.5
Serbia-Montenegro	81%	81%	1.7%	0.4%	88%	125%	\$ 21.2	\$ 44.0	\$ 68.1	\$ 94.1	\$ 227.4
Switzerland	31%	28%	3.3%	5.9%	23%	31%	\$ 257.2	\$ 521.5	\$ 794.2	\$ 1,075.5	\$ 2,648.4
Ukraine	91%	91%	1.6%	0.1%	101%	158%	\$ 64.1	\$ 129.9	\$ 204.3	\$ 289.8	\$ 688.1
Subtotal	46%	44%	2.1%	1.2%	67%	104%	\$ 1,765.6	\$ 3,794.2	\$ 6,245.2	\$ 9,223.8	\$ 21,028.9
North America											
Canada	35%	36%	2.8%	2.7%	17%	24%	\$ 701.7	\$ 1,419.6	\$ 2,151.4	\$ 2,897.0	\$ 7,169.7
Puerto Rico	46%	46%	0.7%	0.6%	42%	47%	\$ 5.0	\$ 10.5	\$ 16.9	\$ 23.9	\$ 56.2
United States	22%	21%	3.4%	3.4%	31%	40%	\$ 11,524.9	\$ 23,839.3	\$ 36,813.3	\$ 50,526.8	\$ 122,704.2
Subtotal	23%	22%	3.3%	3.3%	30%	39%	\$ 12,231.5	\$ 25,269.4	\$ 38,981.5	\$ 53,447.7	\$ 129,930.1
TOTAL	36%	35%	2.5%	2.1%	33%	45%	\$ 30,930.2	\$ 64,353.1	\$ 100,914.9	\$ 141,205.3	\$ 337,403.4

Economic Benefits From Software Piracy Reduction 2006 - 2009
 Benefits of A 10-Point Piracy Reduction
 (Reducing piracy 2.5% a Year from 2006-2009)

Country	Additional Jobs				Additional Taxes (\$M)				Additional Contribution to GDP (\$M)*						
	2006	2007	2008	2009	Total	2006	2007	2008	2009	Total	2006	2007	2008	2009	Total
Asia Pacific															
Australia	2,104	4,473	7,056	9,772	9,772	86.0	185.7	297.5	419.2	988.4	422.8	899.2	1,424.7	1,988.9	4,735.6
China	450,267	881,096	1,327,192	1,799,089	1,799,089	603.3	1,234.9	1,946.8	2,750.0	6,535.0	8,019.7	16,403.6	25,842.5	36,474.0	86,739.9
Hong Kong	1,069	2,178	3,373	4,662	4,662	13.6	28.5	44.3	63.2	149.7	59.9	124.4	196.2	275.9	656.4
India	27,379	55,402	84,791	115,847	115,847	31.4	69.3	115.1	170.3	386.0	474.5	1,057.8	1,773.7	2,645.2	5,951.2
Indonesia	931	1,704	2,398	3,096	3,096	16.6	31.3	45.1	59.9	136.6	366.6	689.5	994.6	1,318.7	3,369.4
Japan	8,547	17,237	25,993	34,885	34,885	379.8	777.0	1,194.5	1,635.3	3,986.5	2,285.5	4,652.6	7,084.9	9,600.5	23,623.5
Korea	4,042	8,388	13,089	18,234	18,234	76.6	164.1	264.7	382.0	887.3	255.1	545.6	873.6	1,249.6	2,924.9
Malaysia	1,257	2,565	3,928	5,451	5,451	21.8	45.4	71.8	101.9	240.9	111.3	232.9	366.2	520.0	1,230.5
New Zealand	263	552	870	1,235	1,235	10.9	23.4	37.5	54.1	126.0	66.1	140.5	224.1	323.9	754.5
Philippines	469	969	1,536	2,165	2,165	2.2	4.6	7.5	10.8	25.2	40.8	87.0	140.8	203.2	471.9
Singapore	866	1,778	2,721	3,700	3,700	13.2	28.2	45.1	64.0	150.4	71.3	148.5	231.0	319.0	769.8
Taiwan	659	1,378	2,173	3,020	3,020	7.5	16.2	26.3	37.7	87.8	80.5	169.6	268.4	375.3	893.7
Thailand	1,097	2,222	3,433	4,763	4,763	6.7	14.0	22.2	31.4	74.3	177.0	368.2	580.3	819.8	1,945.3
Vietnam	1,242	2,202	3,150	4,097	4,097	4.7	8.6	12.7	17.3	43.3	115.1	210.1	309.0	419.3	1,051.5
Subtotal	500,194	982,143	1,481,683	2,010,019	2,010,019	1,274.2	2,631.1	4,131.1	5,797.0	13,833.4	12,545.3	25,729.5	40,309.9	56,533.4	135,118.2
European Union															
Austria	587	1,185	1,790	2,402	2,402	46.3	95.1	146.1	199.0	486.4	151.1	309.8	473.9	643.0	1,577.8
Belgium	965	1,940	2,946	3,978	3,978	80.3	164.8	255.0	343.8	844.0	251.2	513.2	789.2	1,076.1	2,629.8
Czech Republic	622	1,310	2,089	2,903	2,903	7.9	17.4	29.0	41.9	96.2	81.1	175.8	287.2	407.8	951.9
Denmark	795	1,575	2,375	3,246	3,246	77.5	157.0	234.9	327.0	796.5	211.5	427.6	654.1	901.0	2,194.2
Estonia	85	168	249	329	329	1.1	2.2	3.5	4.9	11.7	6.5	13.5	20.8	28.7	69.5
Finland	544	1,100	1,665	2,244	2,244	49.5	102.1	157.7	217.1	526.4	148.7	306.4	470.3	641.3	1,566.7
France	7,628	15,146	22,474	29,970	29,970	560.1	1,127.9	1,705.5	2,307.1	5,700.6	1,681.0	3,391.5	5,108.7	6,892.6	17,073.8
Germany	7,256	14,619	22,162	29,598	29,598	432.4	879.9	1,346.5	1,814.0	4,472.7	1,735.3	3,545.2	5,436.8	7,345.7	18,063.1
Greece	350	689	1,025	1,364	1,364	12.6	25.4	38.8	53.1	130.0	40.7	81.5	122.9	165.9	411.1
Hungary	540	1,134	1,789	2,483	2,483	12.4	26.9	43.7	62.2	145.3	62.1	134.2	216.5	306.7	719.5
Ireland	444	902	1,373	1,838	1,838	25.5	53.8	84.9	112.8	276.9	51.3	106.0	163.4	220.6	541.2
Italy	3,727	7,460	11,186	14,879	14,879	236.3	478.5	726.8	979.9	2,421.5	829.0	1,685.1	2,563.6	3,456.8	8,534.4
Latvia	136	266	392	511	511	1.0	2.2	3.3	4.6	11.1	6.2	12.9	20.1	28.0	70.2
Lithuania	123	245	365	479	479	0.9	1.9	2.9	3.9	9.6	6.0	14.5	22.8	31.8	81.8
Luxembourg	47	94	144	195	195	6.7	13.3	20.6	28.6	69.1	25.9	53.0	81.9	112.4	273.2
Netherlands	1,877	3,806	5,821	7,778	7,778	134.9	278.0	423.8	580.7	1,417.5	445.6	913.1	1,413.1	1,908.6	4,678.5
Poland	910	1,939	3,094	4,295	4,295	20.0	43.9	71.8	102.2	237.9	174.2	382.0	623.4	884.1	2,063.6
Portugal	144	288	433	578	578	5.4	11.0	16.8	22.9	56.1	44.5	90.5	137.9	186.8	459.7
Slovakia	299	622	973	1,418	1,418	5.0	11.0	17.3	26.4	64.4	24.6	48.4	77.9	118.0	286.9
Slovenia	253	522	810	1,119	1,119	5.6	11.6	17.9	25.0	62.4	19.9	42.3	67.0	94.4	223.5
Spain	1,001	2,010	3,030	4,079	4,079	51.5	104.8	159.1	215.8	531.0	305.6	627.3	962.0	1,316.8	3,211.7
Sweden	1,448	2,895	4,442	5,981	5,981	147.5	295.3	461.7	632.2	1,536.7	293.3	595.2	888.5	1,260.4	3,073.8
United Kingdom	8,331	16,707	25,287	33,874	33,874	471.3	963.6	1,480.9	2,021.9	4,937.8	1,685.1	3,710.0	5,688.5	7,716.6	18,935.9
Subtotal	38,111	76,623	115,912	155,541	155,541	2,392.3	4,867.6	7,454.4	10,134.1	24,946.4	8,415.2	17,182.9	26,332.8	35,752.3	87,683.2

* GDP contribution excludes impact from imports and exports and includes total value of channel revenues (not just mark-up).

Economic Benefits From Software Piracy Reduction 2006 - 2009 (Continued)

Country	Additional Jobs				Additional Taxes (\$M)				Additional Contribution to GDP (\$M)*			
	2006	2007	2009	Total	2006	2007	2009	Total	2006	2007	2009	Total
Latin America												
Argentina	1,399	3,014	4,864	7,036	139	310	516	1,734	139.3	313.0	523.0	1,784.6
Brazil	4,850	10,012	15,589	21,598	49.7	104.2	164.8	550.5	434.0	915.3	1,449.5	2,041.7
Chile	376	769	1,186	1,636	5.0	10.4	16.3	54.6	51.4	107.2	168.1	295.5
Colombia	435	878	1,369	1,916	3.3	7.1	11.2	37.6	51.7	109.2	173.3	246.4
Costa Rica	85	174	265	359	1.2	2.5	3.9	12.8	16.2	34.1	52.8	72.6
Dominican Republic	97	202	303	407	0.2	0.5	0.8	2.7	4.3	9.3	14.2	19.4
Mexico	1,622	3,301	5,089	6,996	27.8	57.5	89.7	299.9	253.3	524.5	818.6	1,138.9
Panama	26	55	83	112	0.2	0.5	0.8	2.7	3.3	7.1	11.0	15.0
Peru	268	520	759	987	2.5	4.9	7.2	24.1	29.6	58.1	85.7	112.6
Uruguay	33	68	105	144	0.5	1.0	1.6	5.3	5.2	10.9	17.1	24.0
Venezuela	545	1,128	1,749	2,432	4.2	8.7	13.6	45.3	54.7	114.8	179.5	251.4
Subtotal	9,726	20,120	30,780	43,623	108.5	228.3	359.5	1,207.0	1,043.0	2,203.5	3,431.9	4,942.1
Middle East Africa												
Egypt	202	415	635	858	1.0	2.1	3.3	11.0	29.0	62.0	97.5	135.5
Israel	946	1,902	2,880	3,870	37.9	76.1	118.6	392.7	82.0	166.8	255.1	346.2
Kuwait	141	290	450	609	0.1	0.3	0.4	1.5	3.9	65.9	105.5	146.7
Saudi Arabia	458	941	1,445	1,973	1.6	3.3	5.0	16.7	72.7	153.8	243.1	341.0
South Africa	533	1,118	1,719	2,365	11.3	24.6	39.2	131.1	148.8	321.6	506.7	715.7
Turkey	692	1,392	2,123	2,903	2.1	4.1	6.1	110.5	92.1	192.3	301.6	423.1
United Arab Emirates	145	303	481	667	0.5	1.0	1.6	5.5	30.6	66.0	107.3	153.2
Subtotal	3,117	6,361	9,732	13,245	62.6	128.4	201.3	669.0	486.1	1,028.2	1,616.9	2,261.4
Rest of Europe												
Albania	43	94	154	219	0.3	0.8	1.3	4.3	3.3	7.6	13.1	19.1
Bosnia	53	110	169	235	0.3	0.7	1.0	3.5	4.9	10.3	15.9	21.9
Bulgaria	522	1,030	1,532	2,032	2.9	5.9	9.2	23.3	19.5	40.5	63.3	88.4
Croatia	289	510	781	1,066	5.8	12.0	18.8	43.4	21.9	46.6	74.0	104.7
Kazakhstan	228	478	784	1,120	1.3	3.1	5.5	8.6	26.6	65.3	115.2	180.3
Macedonia	82	165	251	328	1.5	3.1	4.9	16.0	6.3	13.4	20.3	27.5
Norway	779	1,576	2,379	3,237	51.0	105.2	162.0	543.4	159.0	327.4	502.0	689.3
Romania	738	1,497	2,280	3,091	6.8	14.3	22.6	75.6	60.4	126.9	200.3	281.1
Russia	6,802	14,200	23,136	33,736	68.1	146.9	244.2	823.0	1,925.7	4,179.5	6,962.5	10,409.6
Serbia-Montenegro	507	973	1,405	1,812	6.0	12.3	18.8	62.8	39.3	81.5	125.8	173.6
Switzerland	1,495	2,990	4,502	6,032	108.6	220.0	335.0	1,119.8	324.1	657.5	1,001.9	1,356.6
Ukraine	1,290	2,507	3,801	5,196	9.9	20.3	32.2	108.3	138.2	280.8	442.7	629.3
Subtotal	12,789	26,130	41,173	58,106	262.6	544.6	855.6	2,869.0	2,729.3	5,837.3	9,537.0	13,981.4
North America												
Canada	3,810	7,455	10,964	14,232	208.9	418.3	627.7	838.4	703.0	1,435.3	2,162.6	2,915.4
Puerto Rico	54	112	178	246	1.6	3.4	5.4	17.9	7.4	15.6	24.8	34.9
United States	25,147	51,129	77,892	105,511	1,963.4	4,069.6	6,313.9	8,720.2	11,681.3	24,161.5	37,314.5	51,219.7
Subtotal	29,012	58,696	89,034	119,991	2,174.0	4,491.3	6,948.9	9,556.1	12,391.7	25,602.4	39,501.9	54,170.0
TOTAL	592,948	1,170,073	1,768,314	2,400,525	6,274.2	12,891.3	19,950.7	27,480.9	37,610.5	77,583.8	120,730.4	167,640.6
* GDP contribution excludes impact from imports and exports and includes total value of channel revenues (not list mark-up).												

Projected IT Sector Growth
(Revenues Without Additional Piracy Rate Reduction)

Country	IT Hardware (\$M)				Software (\$M)				IT Services (\$M)				IT Total (\$M)				Average Growth	
	2000	2004	2009	2014-2009*	2000	2004	2009	2014-2009*	2000	2004	2009	2014-2009*	2000	2004	2009	2014-2009*	2004	2009*
Asia Pacific																		
Australia	\$ 8,543.4	\$ 7,903.5	\$ 7,922.6	0.0%	\$ 3,207.0	\$ 2,896.6	\$ 4,029.1	6.8%	\$ 6,146.8	\$ 8,252.7	\$ 11,498.2	6.9%	\$ 17,897.2	\$ 19,052.7	\$ 23,449.9	4.2%	\$ 23,449.9	4.2%
China	\$ 15,404.3	\$ 20,409.2	\$ 32,899.1	10.0%	\$ 1,496.8	\$ 2,811.6	\$ 7,024.6	20.1%	\$ 1,945.9	\$ 4,298.9	\$ 11,071.2	20.8%	\$ 18,847.0	\$ 27,519.7	\$ 50,994.9	13.1%	\$ 50,994.9	13.1%
Hong Kong	\$ 2,336.1	\$ 1,920.2	\$ 2,231.1	3.0%	\$ 466.3	\$ 413.4	\$ 589.8	7.4%	\$ 624.2	\$ 949.9	\$ 1,144.7	3.8%	\$ 3,426.7	\$ 3,283.5	\$ 3,965.5	3.8%	\$ 3,965.5	3.8%
India	\$ 3,230.8	\$ 4,330.7	\$ 10,361.3	19.1%	\$ 493.6	\$ 761.5	\$ 1,847.4	19.4%	\$ 1,119.1	\$ 2,285.1	\$ 5,247.3	18.1%	\$ 4,843.5	\$ 7,377.4	\$ 17,456.0	18.8%	\$ 17,456.0	18.8%
Indonesia	\$ 792.8	\$ 1,300.3	\$ 2,311.8	12.2%	\$ 117.7	\$ 157.6	\$ 269.9	11.4%	\$ 133.0	\$ 215.1	\$ 417.3	14.2%	\$ 1,043.4	\$ 1,673.0	\$ 2,999.0	12.4%	\$ 2,999.0	12.4%
Japan	\$ 58,971.7	\$ 43,106.2	\$ 43,968.3	0.4%	\$ 16,510.5	\$ 17,974.3	\$ 21,335.7	3.5%	\$ 37,504.3	\$ 42,320.1	\$ 51,536.8	4.0%	\$ 118,886.5	\$ 103,400.5	\$ 116,860.7	2.5%	\$ 116,860.7	2.5%
Korea	\$ 8,051.2	\$ 6,690.2	\$ 8,585.7	5.1%	\$ 1,944.0	\$ 1,793.8	\$ 2,133.7	8.8%	\$ 3,750.0	\$ 4,045.1	\$ 4,727.1	9.2%	\$ 12,344.1	\$ 12,529.1	\$ 17,593.6	7.0%	\$ 17,593.6	7.0%
Malaysia	\$ 1,563.5	\$ 1,675.4	\$ 1,675.4	11.1%	\$ 367.7	\$ 425.1	\$ 616.3	7.7%	\$ 370.8	\$ 401.6	\$ 480.1	16.3%	\$ 2,302.1	\$ 2,902.1	\$ 4,156.0	12.2%	\$ 4,156.0	12.2%
New Zealand	\$ 1,180.5	\$ 1,131.0	\$ 1,253.7	2.1%	\$ 378.6	\$ 396.2	\$ 598.7	8.6%	\$ 917.1	\$ 1,431.8	\$ 1,786.6	6.5%	\$ 2,476.2	\$ 2,958.9	\$ 3,817.7	5.2%	\$ 3,817.7	5.2%
Philippines	\$ 546.3	\$ 643.3	\$ 1,134.4	12.0%	\$ 172.2	\$ 140.5	\$ 233.2	10.7%	\$ 242.8	\$ 286.3	\$ 565.0	14.6%	\$ 961.3	\$ 1,070.1	\$ 1,932.6	12.5%	\$ 1,932.6	12.5%
Singapore	\$ 1,930.7	\$ 1,672.8	\$ 1,825.9	0.9%	\$ 723.7	\$ 585.9	\$ 866.2	6.6%	\$ 1,058.4	\$ 1,471.3	\$ 1,786.6	4.0%	\$ 3,712.8	\$ 3,730.0	\$ 4,418.7	3.4%	\$ 4,418.7	3.4%
Taiwan	\$ 4,085.4	\$ 4,283.2	\$ 4,483.4	0.9%	\$ 707.0	\$ 744.0	\$ 1,112.0	8.4%	\$ 1,187.4	\$ 1,480.0	\$ 1,405.6	4.1%	\$ 5,959.8	\$ 6,175.2	\$ 7,001.0	2.5%	\$ 7,001.0	2.5%
Thailand	\$ 1,049.8	\$ 1,563.7	\$ 2,369.6	8.6%	\$ 222.4	\$ 256.3	\$ 440.5	11.4%	\$ 275.7	\$ 522.0	\$ 1,047.7	15.0%	\$ 1,547.8	\$ 2,348.0	\$ 3,857.8	10.4%	\$ 3,857.8	10.4%
Vietnam	\$ 235.6	\$ 395.2	\$ 787.3	14.7%	\$ 18.3	\$ 24.6	\$ 43.0	11.8%	\$ 42.3	\$ 87.9	\$ 226.6	20.9%	\$ 296.2	\$ 508.7	\$ 1,056.8	15.7%	\$ 1,056.8	15.7%
Subtotal	\$ 107,802.0	\$ 97,031.8	\$ 122,970.6	4.9%	\$ 26,825.9	\$ 29,381.5	\$ 41,700.0	7.3%	\$ 53,916.7	\$ 68,115.8	\$ 95,889.7	7.1%	\$ 188,544.6	\$ 194,529.0	\$ 260,560.2	6.0%	\$ 260,560.2	6.0%
European Union																		
Austria	\$ 3,871.9	\$ 2,494.5	\$ 3,176.7	5.0%	\$ 1,143.1	\$ 1,262.3	\$ 1,576.9	4.6%	\$ 2,963.1	\$ 3,360.3	\$ 4,486.1	5.9%	\$ 7,984.1	\$ 7,117.1	\$ 9,239.7	5.4%	\$ 9,239.7	5.4%
Belgium	\$ 4,271.8	\$ 3,185.1	\$ 4,089.7	5.1%	\$ 1,908.0	\$ 2,092.2	\$ 2,861.1	4.9%	\$ 3,847.9	\$ 4,097.4	\$ 5,302.9	5.3%	\$ 10,027.7	\$ 9,377.7	\$ 12,053.8	5.1%	\$ 12,053.8	5.1%
Czech Republic	\$ 988.1	\$ 1,217.4	\$ 1,488.9	4.1%	\$ 316.6	\$ 542.1	\$ 916.2	11.1%	\$ 565.3	\$ 988.4	\$ 1,634.0	10.6%	\$ 1,870.0	\$ 2,748.0	\$ 4,039.0	8.0%	\$ 4,039.0	8.0%
Denmark	\$ 3,928.1	\$ 2,540.4	\$ 2,970.3	3.2%	\$ 1,305.0	\$ 1,485.2	\$ 1,895.7	5.0%	\$ 3,272.5	\$ 3,770.9	\$ 5,183.5	6.6%	\$ 8,305.6	\$ 7,796.5	\$ 10,049.6	5.2%	\$ 10,049.6	5.2%
Estonia	\$ 83.4	\$ 128.8	\$ 183.0	5.1%	\$ 25.6	\$ 40.0	\$ 55.7	6.9%	\$ 31.1	\$ 55.1	\$ 93.8	11.2%	\$ 140.1	\$ 224.9	\$ 332.5	8.1%	\$ 332.5	8.1%
Finland	\$ 2,659.6	\$ 2,029.9	\$ 2,654.7	5.5%	\$ 921.5	\$ 1,048.9	\$ 1,424.9	5.2%	\$ 1,243.8	\$ 2,633.3	\$ 3,645.6	6.8%	\$ 5,305.6	\$ 5,758.1	\$ 7,223.3	6.0%	\$ 7,223.3	6.0%
France	\$ 21,786.3	\$ 23,686.5	\$ 25,259.8	4.8%	\$ 8,653.3	\$ 9,510.8	\$ 12,424.7	4.8%	\$ 12,424.7	\$ 26,633.3	\$ 35,427.1	4.3%	\$ 56,668.4	\$ 53,137.4	\$ 67,516.6	4.9%	\$ 67,516.6	4.9%
Germany	\$ 34,486.0	\$ 23,686.5	\$ 30,932.8	10.6%	\$ 14,360.1	\$ 19,510.8	\$ 26,702.8	4.8%	\$ 26,702.8	\$ 26,633.3	\$ 35,427.1	4.3%	\$ 73,665.4	\$ 71,329.3	\$ 89,256.4	5.0%	\$ 89,256.4	5.0%
Greece	\$ 1,485.2	\$ 1,155.0	\$ 1,414.3	10.6%	\$ 200.0	\$ 240.0	\$ 340.0	10.1%	\$ 470.5	\$ 673.0	\$ 1,083.0	10.8%	\$ 1,483.0	\$ 2,100.2	\$ 3,041.2	7.7%	\$ 3,041.2	7.7%
Hungary	\$ 722.3	\$ 1,052.9	\$ 1,213.8	4.6%	\$ 200.2	\$ 260.3	\$ 340.0	10.1%	\$ 470.5	\$ 673.0	\$ 1,083.0	10.8%	\$ 1,483.0	\$ 2,100.2	\$ 3,041.2	7.7%	\$ 3,041.2	7.7%
Ireland	\$ 1,847.9	\$ 1,269.4	\$ 1,901.8	8.4%	\$ 357.5	\$ 401.4	\$ 555.2	6.7%	\$ 698.3	\$ 986.0	\$ 1,360.1	6.5%	\$ 2,983.7	\$ 2,656.8	\$ 3,817.1	7.5%	\$ 3,817.1	7.5%
Italy	\$ 13,455.2	\$ 10,919.3	\$ 14,883.9	6.4%	\$ 3,948.6	\$ 4,505.5	\$ 5,757.1	5.3%	\$ 10,369.0	\$ 12,566.0	\$ 15,072.4	4.4%	\$ 27,772.7	\$ 27,525.8	\$ 35,713.4	5.3%	\$ 35,713.4	5.3%
Lithuania	\$ 75.4	\$ 107.0	\$ 203.1	9.8%	\$ 23.9	\$ 40.9	\$ 59.5	7.7%	\$ 34.7	\$ 64.1	\$ 109.4	11.3%	\$ 134.0	\$ 232.0	\$ 372.0	9.3%	\$ 372.0	9.3%
Luxembourg	\$ 76.5	\$ 174.7	\$ 275.0	9.5%	\$ 24.4	\$ 44.2	\$ 69.0	9.3%	\$ 31.1	\$ 56.3	\$ 95.2	11.1%	\$ 132.0	\$ 275.2	\$ 439.2	9.8%	\$ 439.2	9.8%
Netherlands	\$ 320.5	\$ 336.4	\$ 444.2	5.7%	\$ 142.3	\$ 208.8	\$ 289.1	8.9%	\$ 279.8	\$ 432.4	\$ 576.0	5.9%	\$ 742.5	\$ 969.6	\$ 1,309.3	5.8%	\$ 1,309.3	5.8%
Norway	\$ 802.4	\$ 579.8	\$ 750.1	5.3%	\$ 340.2	\$ 376.3	\$ 478.6	4.9%	\$ 645.0	\$ 6,986.0	\$ 9,288.2	5.9%	\$ 17,884.7	\$ 16,542.9	\$ 21,575.8	5.5%	\$ 21,575.8	5.5%
Poland	\$ 1,924.6	\$ 2,242.0	\$ 3,347.3	8.3%	\$ 458.0	\$ 772.7	\$ 1,394.5	12.5%	\$ 616.5	\$ 1,129.2	\$ 2,177.1	14.0%	\$ 2,999.0	\$ 4,143.9	\$ 6,918.9	10.8%	\$ 6,918.9	10.8%
Portugal	\$ 1,850.4	\$ 1,491.6	\$ 2,175.8	7.8%	\$ 317.1	\$ 357.6	\$ 474.8	5.8%	\$ 733.9	\$ 890.4	\$ 1,107.4	4.5%	\$ 2,901.4	\$ 2,739.6	\$ 3,758.0	6.5%	\$ 3,758.0	6.5%
Slovakia	\$ 248.2	\$ 430.9	\$ 629.2	7.9%	\$ 89.1	\$ 141.3	\$ 257.5	12.7%	\$ 137.0	\$ 248.1	\$ 416.8	10.9%	\$ 474.3	\$ 820.3	\$ 1,303.5	9.7%	\$ 1,303.5	9.7%
Slovenia	\$ 209.9	\$ 295.6	\$ 381.9	5.3%	\$ 65.7	\$ 102.3	\$ 166.4	10.2%	\$ 100.9	\$ 163.5	\$ 236.5	7.7%	\$ 376.5	\$ 561.4	\$ 784.8	6.9%	\$ 784.8	6.9%
Spain	\$ 7,093.4	\$ 6,980.3	\$ 10,953.6	9.4%	\$ 1,881.0	\$ 2,187.6	\$ 2,979.1	6.4%	\$ 4,353.1	\$ 5,858.4	\$ 8,854.2	8.6%	\$ 13,327.5	\$ 15,026.2	\$ 22,787.0	8.7%	\$ 22,787.0	8.7%
Sweden	\$ 6,119.2	\$ 4,055.0	\$ 4,631.1	2.7%	\$ 1,869.3	\$ 2,201.1	\$ 2,842.8	5.2%	\$ 5,240.5	\$ 5,737.0	\$ 7,179.0	4.6%	\$ 13,328.9	\$ 11,993.2	\$ 14,652.0	4.1%	\$ 14,652.0	4.1%
United Kingdom	\$ 27,429.8	\$ 22,358.8	\$ 29,594.2	5.8%	\$ 11,852.3	\$ 13,236.2	\$ 17,042.7	5.1%	\$ 28,366.7	\$ 33,672.1	\$ 43,287.0	5.2%	\$ 67,648.8	\$ 69,318.1	\$ 89,924.0	5.3%	\$ 89,924.0	5.3%
Subtotal	\$ 142,682.2	\$ 111,725.1	\$ 147,954.9	5.8%	\$ 53,276.5	\$ 59,583.1	\$ 77,719.1	5.3%	\$ 124,374.7	\$ 139,721.6	\$ 179,592.0	5.1%	\$ 320,333.4	\$ 311,029.8	\$ 404,766.0	5.4%	\$ 404,766.0	5.4%

* Compound Annual Growth Rate

Projected IT Sector Growth (Continued)
(Revenues Without Additional Privacy Rate Reduction)

Country	IT Hardware (\$M)			Software (\$M)			IT Services (\$M)			IT Total (\$M)			Average Growth 2004-2009*	
	2000	2004	2009	2000	2004	2009	2000	2004	2009	2000	2004	2009		
Latin America														
Argentina	\$ 2,862.1	\$ 891.2	\$ 1,364.1	\$ 404.5	\$ 330.0	\$ 684.6	15.7%	\$ 714.5	\$ 1,937.4	\$ 4,396.5	\$ 1,937.4	\$ 3,986.1	15.5%	
Brazil	\$ 7,841.0	\$ 5,130.0	\$ 6,801.0	\$ 1,578.1	\$ 1,755.6	\$ 2,708.2	9.1%	\$ 3,909.1	\$ 6,161.1	\$ 13,551.9	\$ 10,794.7	\$ 15,670.3	7.7%	
Chile	\$ 756.4	\$ 566.9	\$ 763.1	\$ 212.6	\$ 342.4	\$ 411.5	9.5%	\$ 418.8	\$ 545.2	\$ 1,250.6	\$ 1,191.0	\$ 1,642.6	6.6%	
Colombia	\$ 922.0	\$ 707.8	\$ 873.5	\$ 171.8	\$ 253.5	\$ 372.8	8.0%	\$ 649.7	\$ 1,123.4	\$ 1,512.6	\$ 1,611.0	\$ 2,369.7	8.0%	
Costa Rica	\$ 71.4	\$ 99.2	\$ 129.2	\$ 34.8	\$ 48.0	\$ 72.3	8.5%	\$ 43.1	\$ 111.2	\$ 147.3	\$ 215.5	\$ 312.8	7.7%	
Dominican Republic	\$ 110.1	\$ 117.6	\$ 151.7	\$ 14.4	\$ 15.3	\$ 23.6	9.1%	\$ 21.0	\$ 33.2	\$ 144.4	\$ 153.9	\$ 208.5	6.3%	
Mexico	\$ 4,180.6	\$ 4,065.8	\$ 5,182.6	\$ 910.4	\$ 1,083.2	\$ 1,599.5	8.1%	\$ 1,711.9	\$ 3,140.6	\$ 6,803.0	\$ 7,339.4	\$ 9,922.6	6.2%	
Panama	\$ 149.1	\$ 145.7	\$ 184.1	\$ 10.4	\$ 14.5	\$ 21.6	8.3%	\$ 24.1	\$ 37.4	\$ 181.1	\$ 184.3	\$ 243.0	5.7%	
Peru	\$ 296.9	\$ 306.7	\$ 369.5	\$ 61.3	\$ 68.9	\$ 86.2	4.6%	\$ 172.3	\$ 243.3	\$ 506.6	\$ 565.3	\$ 699.0	4.3%	
Uruguay	\$ 106.9	\$ 110.4	\$ 148.6	\$ 16.4	\$ 18.4	\$ 28.7	8.5%	\$ 38.5	\$ 57.9	\$ 158.2	\$ 167.3	\$ 235.2	7.1%	
Venezuela	\$ 974.0	\$ 594.9	\$ 743.3	\$ 288.8	\$ 194.5	\$ 291.1	8.4%	\$ 517.7	\$ 394.2	\$ 1,780.5	\$ 973.0	\$ 1,428.7	7.9%	
Subtotal	\$ -	\$ -	\$ -	\$ 7,066.8	\$ 6,965.2	\$ 9,989.0	0.0%	\$ 8,601.3	\$ 13,780.1	\$ 30,512.6	\$ 25,133.1	\$ 36,675.9	7.9%	
Middle East Africa														
Egypt	\$ 337.7	\$ 357.3	\$ 628.0	\$ 77.8	\$ 115.2	\$ 214.3	13.2%	\$ 93.3	\$ 130.7	\$ 508.8	\$ 561.7	\$ 973.0	11.6%	
Israel	\$ 1,626.2	\$ 1,536.2	\$ 1,879.9	\$ 580.2	\$ 603.0	\$ 785.6	5.4%	\$ 1,266.2	\$ 1,493.8	\$ 3,472.6	\$ 3,390.7	\$ 4,159.3	4.2%	
Kuwait	\$ 118.7	\$ 225.0	\$ 354.2	\$ 44.4	\$ 82.2	\$ 155.8	13.6%	\$ 76.2	\$ 203.1	\$ 239.4	\$ 431.4	\$ 713.0	10.6%	
Saudi Arabia	\$ 694.5	\$ 971.0	\$ 1,704.9	\$ 206.2	\$ 405.6	\$ 653.0	10.0%	\$ 576.4	\$ 1,120.0	\$ 1,437.0	\$ 2,037.7	\$ 3,477.9	11.3%	
South Africa	\$ 2,266.1	\$ 2,703.5	\$ 3,605.5	\$ 850.8	\$ 1,203.4	\$ 1,788.0	13.2%	\$ 1,324.2	\$ 4,424.2	\$ 4,965.6	\$ 6,093.3	\$ 8,307.7	12.2%	
Turkey	\$ 156.9	\$ 1,035.5	\$ 3,515.7	\$ 18.3	\$ 120.8	\$ 409.8	17.8%	\$ 77.1	\$ 4,424.2	\$ 1,985.2	\$ 2,321.9	\$ 3,307.7	15.0%	
U.A.E./Arab Emirates	\$ 558.3	\$ 920.2	\$ 1,359.9	\$ 150.3	\$ 109.8	\$ 267.2	12.3%	\$ 205.9	\$ 536.4	\$ 986.2	\$ 1,321.9	\$ 2,283.5	10.9%	
Subtotal	\$ 6,824.5	\$ 8,252.1	\$ 12,657.3	\$ 2,311.7	\$ 2,925.6	\$ 4,560.8	9.5%	\$ 5,611.3	\$ 8,716.3	\$ 13,603.8	\$ 16,789.0	\$ 23,934.5	9.1%	
Rest of Europe														
Albania	\$ 22.0	\$ 38.8	\$ 76.8	\$ 2.0	\$ 7.0	\$ 16.8	14.6%	\$ 5.0	\$ 18.0	\$ 29.0	\$ 53.6	\$ 111.6	15.8%	
Bosnia	\$ 40.0	\$ 67.3	\$ 112.6	\$ 10.0	\$ 16.7	\$ 29.2	11.9%	\$ 17.8	\$ 27.5	\$ 67.0	\$ 101.7	\$ 169.3	10.7%	
Bulgaria	\$ 126.7	\$ 202.3	\$ 360.7	\$ 27.8	\$ 49.4	\$ 88.0	12.2%	\$ 36.0	\$ 102.8	\$ 190.5	\$ 306.9	\$ 551.5	12.4%	
Croatia	\$ 202.9	\$ 344.8	\$ 481.4	\$ 72.3	\$ 110.1	\$ 193.0	11.9%	\$ 146.4	\$ 254.6	\$ 351.4	\$ 601.3	\$ 929.0	9.1%	
Kazakhstan	\$ 97.9	\$ 193.8	\$ 720.9	\$ 9.9	\$ 24.1	\$ 99.6	32.9%	\$ 13.9	\$ 34.8	\$ 121.7	\$ 252.6	\$ 989.8	31.4%	
Macedonia	\$ 26.6	\$ 42.0	\$ 63.2	\$ 7.3	\$ 10.7	\$ 16.4	8.5%	\$ 9.2	\$ 24.3	\$ 48.1	\$ 66.0	\$ 106.8	10.1%	
Norway	\$ 2,898.0	\$ 2,232.5	\$ 2,565.9	\$ 967.6	\$ 1,078.2	\$ 1,433.3	5.9%	\$ 2,325.3	\$ 3,819.0	\$ 6,190.9	\$ 6,003.5	\$ 7,818.2	5.4%	
Romania	\$ 245.0	\$ 560.0	\$ 789.9	\$ 71.1	\$ 124.4	\$ 222.9	12.4%	\$ 78.2	\$ 312.6	\$ 369.3	\$ 818.3	\$ 1,325.4	10.1%	
Russia	\$ 3,049.8	\$ 6,251.8	\$ 13,209.2	\$ 407.2	\$ 1,065.0	\$ 2,649.2	20.0%	\$ 681.0	\$ 1,898.0	\$ 4,138.0	\$ 9,214.8	\$ 21,738.1	18.7%	
Serbia/Montenegro	\$ 155.7	\$ 250.2	\$ 438.0	\$ 27.4	\$ 50.4	\$ 126.2	20.1%	\$ 47.7	\$ 152.0	\$ 230.7	\$ 381.2	\$ 716.3	13.4%	
Switzerland	\$ 5,716.9	\$ 3,930.0	\$ 4,836.5	\$ 2,483.0	\$ 2,674.2	\$ 3,331.9	4.5%	\$ 5,095.2	\$ 6,226.2	\$ 12,668.9	\$ 11,699.3	\$ 14,394.6	4.2%	
Ukraine	\$ 423.6	\$ 818.7	\$ 1,645.1	\$ 55.3	\$ 77.2	\$ 172.1	17.4%	\$ 80.2	\$ 246.8	\$ 559.0	\$ 1,027.6	\$ 2,064.0	15.0%	
Subtotal	\$ 12,965.2	\$ 14,928.6	\$ 25,293.0	\$ 4,124.0	\$ 5,287.3	\$ 8,381.6	9.7%	\$ 7,853.7	\$ 17,230.5	\$ 24,942.9	\$ 30,522.1	\$ 50,905.1	10.8%	
North America														
Canada	\$ 12,280.5	\$ 10,302.0	\$ 11,430.4	\$ 4,271.5	\$ 4,767.4	\$ 5,711.2	3.7%	\$ 10,922.2	\$ 14,889.5	\$ 27,474.2	\$ 27,471.4	\$ 32,031.1	3.1%	
Puerto Rico	\$ 394.0	\$ 390.9	\$ 519.8	\$ 35.5	\$ 51.9	\$ 78.3	8.6%	\$ 93.8	\$ 132.0	\$ 523.3	\$ 574.8	\$ 818.0	7.3%	
United States	\$ 182,397.1	\$ 127,107.9	\$ 162,005.9	\$ 91,036.9	\$ 98,317.1	\$ 133,421.6	6.3%	\$ 148,398.0	\$ 170,477.8	\$ 421,832.0	\$ 395,902.8	\$ 518,078.3	5.5%	
Subtotal	\$ 195,071.6	\$ 137,800.9	\$ 173,956.1	\$ 95,343.8	\$ 103,136.4	\$ 139,211.1	6.2%	\$ 159,414.0	\$ 183,011.8	\$ 449,899.4	\$ 423,949.0	\$ 550,927.4	5.4%	
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%	\$ -	\$ -	\$ 1,027,766.7	\$ 1,001,952.0	\$ 1,329,769.2	5.8%	

* Compound Annual Growth Rate

Projected IT Industry Job Growth***
(Without Additional Privacy Rate Reduction)

Country	Hardware Employees				Software Employees				IT Services Employees				Total IT Employees*			
	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**
Asia Pacific																
Australia	5,923	5,613	5,625	0.0%	2,632	2,457	3,102	4.8%	86,925	107,094	135,389	4.8%	145,587	165,177	199,183	3.8%
China	841,999	1,067,931	1,361,455	5.0%	121,768	186,352	385,732	15.7%	50,939	82,901	149,391	12.5%	1,295,797	1,820,116	2,678,312	8.0%
Hong Kong	4,263	4,724	4,174	-2.4%	10,240	10,512	13,631	5.3%	18,080	18,080	20,696	2.7%	43,135	48,832	54,242	2.1%
India	20,510	25,281	36,524	7.6%	17,940	24,442	35,512	7.8%	197,490	330,245	468,545	7.2%	383,465	577,586	825,397	7.4%
Indonesia	3,938	4,865	6,739	6.7%	246	296	440	8.3%	969	1,368	2,225	10.2%	16,044	20,706	31,182	8.5%
Japan	398,534	363,085	368,195	0.3%	46,839	54,057	61,027	2.5%	193,720	221,983	255,020	2.8%	915,453	919,348	982,021	1.3%
Korea	268,694	306,150	365,049	3.6%	25,129	38,755	52,244	6.2%	64,587	78,685	107,416	6.4%	411,466	477,309	592,186	4.4%
Malaysia	130,100	143,664	180,917	4.7%	1,967	3,800	4,943	5.4%	7,211	17,532	30,099	11.4%	153,215	184,068	243,690	5.8%
New Zealand	1,690	2,203	2,320	1.0%	764	790	1,185	8.4%	8,875	12,192	15,252	4.6%	16,649	20,376	24,916	4.1%
Philippines	2,918	3,309	4,613	6.9%	680	749	1,086	7.7%	4,859	6,013	9,914	10.5%	23,271	27,685	42,498	8.9%
Singapore	16,710	15,158	16,123	1.2%	10,187	8,859	11,101	4.6%	20,374	25,805	29,586	2.8%	66,200	75,095	75,095	2.6%
Taiwan	265,949	276,386	285,409	0.6%	1,801	2,427	3,226	5.9%	39,739	38,990	44,965	2.9%	323,640	336,673	354,575	1.0%
Thailand	4,428	5,413	6,903	5.0%	746	938	1,392	8.2%	3,740	5,503	9,177	10.8%	24,591	32,686	47,385	7.7%
Vietnam	1,622	2,200	3,593	10.3%	131	220	327	8.2%	744	1,344	2,656	14.6%	7,593	11,779	19,939	11.1%
Subtotal	1,966,779	2,226,182	2,647,639	3.5%	241,070	334,654	574,948	11.4%	694,923	947,755	1,280,331	6.2%	3,824,105	4,708,541	6,170,621	5.6%
European Union																
Austria	7,041	6,355	7,575	3.6%	3,886	4,080	4,792	3.3%	21,811	22,386	27,605	4.3%	49,135	48,859	59,164	3.9%
Belgium	7,804	7,868	9,415	3.7%	5,396	6,200	7,380	3.5%	24,153	29,247	35,272	3.8%	56,152	64,463	77,389	3.7%
Czech Republic	8,131	9,508	10,992	2.9%	1,986	2,834	4,150	7.9%	5,120	7,785	11,239	7.6%	44,002	56,708	72,803	5.1%
Denmark	6,311	7,078	7,078	2.3%	3,760	3,974	4,742	3.6%	24,717	25,538	32,163	4.7%	52,825	52,697	63,610	3.8%
Estonia	671	756	784	0.7%	340	419	464	2.1%	1,077	1,714	2,251	5.6%	4,158	5,756	6,660	3.0%
Finland	5,260	4,851	5,894	4.0%	2,566	2,969	3,570	3.8%	14,627	17,881	22,695	4.9%	34,149	37,988	47,187	4.4%
France	45,429	43,092	53,438	4.2%	29,233	30,443	36,081	3.5%	214,584	216,815	252,791	3.1%	421,054	424,008	503,186	3.5%
Germany	71,524	66,330	78,117	3.3%	41,446	42,285	50,360	3.6%	238,260	240,118	276,443	2.9%	524,778	519,890	606,038	3.1%
Greece	1,789	1,732	2,503	7.6%	1,946	2,176	2,681	4.3%	2,443	2,683	3,407	4.9%	26,885	27,957	37,754	6.2%
Hungary	5,393	7,028	8,282	3.3%	2,536	3,129	4,440	7.2%	5,470	6,566	9,296	7.2%	37,298	44,039	56,709	5.2%
Ireland	3,375	3,048	4,100	6.1%	5,605	5,935	7,513	4.8%	6,016	6,588	8,318	4.8%	20,989	21,491	27,702	5.2%
Italy	27,126	26,474	33,145	4.6%	12,894	13,638	16,440	3.8%	96,388	102,837	120,206	3.2%	205,426	213,759	256,585	3.7%
Latvia	908	1,182	1,241	1.0%	453	530	595	2.3%	1,652	2,476	3,259	5.6%	6,395	9,057	10,586	3.2%
Lithuania	1,131	1,353	1,420	1.0%	409	528	607	2.8%	1,630	2,244	2,941	5.6%	10,474	13,711	15,788	2.9%
Luxembourg	218	222	272	4.1%	189	256	312	4.0%	1,252	1,664	2,050	4.3%	2,438	3,046	3,739	4.2%
Netherlands	15,791	14,587	17,574	3.8%	12,423	12,954	15,421	3.5%	53,974	54,606	67,111	4.2%	123,773	123,316	149,792	4.0%
Poland	3,201	3,585	4,795	6.0%	1,368	1,651	2,539	9.0%	4,249	6,266	10,141	10.1%	51,594	62,475	90,366	7.7%
Portugal	4,156	4,078	5,368	5.7%	1,167	1,232	1,514	4.2%	2,880	3,115	3,650	3.2%	16,079	16,503	20,780	4.7%
Slovakia	1,872	2,474	3,236	5.5%	1,704	2,423	3,716	8.9%	1,879	2,837	4,101	7.6%	11,284	16,712	23,430	7.0%
Slovenia	666	793	903	2.6%	1,384	1,857	2,647	7.3%	1,002	1,515	1,979	5.5%	6,302	8,657	11,217	5.3%
Spain	15,488	21,626	21,626	6.8%	7,921	8,472	10,599	4.6%	18,751	20,466	27,642	6.2%	79,349	83,624	112,781	6.2%
Sweden	12,616	9,603	10,572	1.9%	9,499	11,512	13,858	3.8%	45,087	35,093	41,300	3.3%	114,997	101,041	116,671	2.9%
United Kingdom	61,301	57,929	70,998	4.2%	59,016	61,871	74,117	3.7%	224,773	233,800	280,578	3.7%	522,853	534,718	645,739	3.8%
Subtotal	307,939	295,131	359,328	4.0%	207,128	221,368	268,538	3.9%	1,011,795	1,044,240	1,246,438	3.6%	2,422,390	2,490,475	3,015,676	3.9%

*Total IT employees includes IT hardware, software, IT services, and channels

**Compound Annual Growth Rate

***Source: IDC Worldwide Black Book, Q1 2005

Projected IT Industry Job Growth*** (Continued)

(Without Additional Piracy Rate Reduction)

Country	Hardware Employees			Software Employees			IT Services Employees			Total IT Employees*			Average Growth	
	2000	2004	2009	2000	2004	2009	2000	2004	2009	2000	2004	2009	2000	2009
Latin America														
Argentina	6,133	7,249	9,872	1,315	1,190	2,029	11,33%	10,486	7,496	15,661	15,9%	80,192	68,913	110,024
Brazil	22,352	20,396	25,008	7,556	8,470	11,611	6.5%	53,328	59,226	82,521	6.9%	294,931	295,966	386,617
Chile	2,032	1,885	2,336	595	765	1,064	6.8%	4,020	4,931	4,921	4.2%	19,934	20,756	26,166
Colombia	2,408	2,422	2,818	514	1,109	1,468	5.8%	4,857	6,905	10,292	8.3%	24,604	32,625	42,442
Costa Rica	491	581	704	104	136	183	6.1%	290	390	556	7.3%	2,848	3,556	4,573
Dominican Republic	1,051	1,098	1,319	400	555	666	6.6%	411	420	585	6.9%	4,580	4,666	5,950
Mexico	12,945	14,060	16,745	2,578	2,999	3,952	5.8%	16,684	20,548	26,693	5.4%	100,292	116,234	144,821
Panama	358	382	452	76	102	136	5.9%	212	270	372	6.6%	2,079	2,436	3,064
Peru	1,422	1,455	1,665	186	203	240	3.4%	2,413	2,607	3,121	3.7%	11,736	12,412	14,488
Uruguay	354	380	472	75	94	131	6.9%	209	260	348	6.0%	2,051	2,366	3,053
Venezuela	2,266	2,333	2,743	604	974	1,304	6.0%	5,408	3,915	6,730	11.4%	23,087	24,089	32,799
Subtotal	51,811	52,239	64,062	14,004	16,437	22,705	6.7%	97,871	106,031	151,776	7.4%	566,333	583,908	773,652
Middle East Africa														
Egypt	318	342	520	548	712	1,120	9.5%	1,020	945	1,248	5.7%	6,796	7,246	10,689
Israel	15,087	14,736	17,028	11,480	11,199	13,566	3.9%	16,063	15,583	17,699	2.6%	51,588	50,416	58,638
Kuwait	285	385	525	260	339	536	9.6%	485	585	850	7.8%	3,524	4,511	6,464
Saudi Arabia	1,037	1,340	2,000	748	939	1,316	7.0%	6,871	8,643	12,571	7.8%	23,962	31,003	45,342
South Africa	6,822	8,539	9,515	2,082	2,732	3,636	5.9%	3,527	4,578	6,597	7.6%	53,698	68,250	83,514
Turkey	1,123	1,401	2,511	1,349	1,490	2,402	10.0%	1,747	1,929	2,752	7.4%	40,181	49,165	82,079
United Arab Emirates	391	567	806	282	355	536	8.6%	2,593	3,366	4,953	8.0%	9,042	12,467	18,148
Subtotal	25,064	27,310	32,905	16,749	17,766	23,112	5.4%	32,306	35,629	46,670	5.5%	188,792	223,058	304,874
Rest of Europe														
Albania	64	96	114	29	84	161	13.9%	184	252	497	14.5%	616	1,008	1,634
Bosnia	124	165	188	106	154	249	10.1%	141	196	293	8.4%	1,851	2,467	3,642
Bulgaria	510	566	566	935	1,187	1,598	6.1%	1,610	2,203	3,985	12.6%	12,595	15,401	20,434
Croatia	495	510	528	1,060	1,427	2,039	7.4%	940	1,389	1,953	7.1%	8,070	9,844	13,398
Kazakhstan	579	945	1,165	108	205	501	19.6%	450	874	1,531	11.9%	4,151	7,295	10,867
Macedonia	55	72	89	150	184	251	6.4%	159	196	267	6.4%	1,139	1,448	1,884
Norway	5,693	5,271	5,845	2,790	3,120	3,835	4.2%	21,088	25,852	33,282	5.2%	43,836	49,438	60,699
Romania	710	769	796	530	1,515	2,295	8.7%	718	1,097	2,108	14.0%	7,055	11,374	15,374
Russia	7,769	11,692	20,217	1,026	1,724	3,378	14.4%	8,558	14,699	33,993	18.3%	52,855	86,261	167,006
Serbia-Montenegro	583	618	656	855	1,043	1,414	6.3%	964	1,191	1,652	6.8%	5,382	6,263	7,778
Switzerland	11,978	10,795	12,551	6,892	7,512	8,811	3.2%	38,651	43,802	50,662	3.0%	92,483	97,252	112,913
Ukraine	1,715	2,179	3,631	345	723	1,307	12.6%	1,200	1,683	2,662	9.6%	17,660	21,341	35,704
Subtotal	29,689	33,343	47,006	15,549	19,291	26,464	6.5%	76,176	93,597	133,798	7.4%	253,047	311,455	463,728
North America														
Canada	68,613	55,109	55,585	41,131	32,479	32,937	0.3%	100,601	90,436	92,156	0.4%	296,001	255,063	259,171
Puerto Rico	1,415	1,415	1,739	109	141	191	6.3%	1,450	1,781	2,583	7.7%	9,819	10,401	13,660
United States	1,826,284	1,568,123	1,869,590	190,695	216,899	270,651	4.5%	535,402	630,894	765,559	3.9%	2,802,979	2,668,340	3,210,589
Subtotal	1,896,296	1,624,647	1,926,914	249,519	303,779	303,779	4.0%	637,453	723,111	860,298	3.5%	3,108,799	2,933,804	3,483,420
TOTAL	4,277,578	4,258,852	5,077,854	1,219,546	1,219,546	1,219,546	7.3%	2,550,524	2,950,363	3,719,311	4.7%	10,363,465	11,251,241	14,211,971

* Total IT employees includes IT hardware, software, IT services, and channels

** Compound Annual Growth Rate

** Source: IDC, Worldwide Black Book, Q1 2005

Projected IT Company Growth
(Without Additional Privacy Rate Reduction)

Country	Hardware Companies				Software Companies				IT Services Companies				Total IT Companies*			
	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**	2000	2004	2009	Average Growth 2004-2009**
Asia Pacific																
Australia	495	485	486	0.0%	108	105	116	2.0%	17,390	19,045	21,086	2.1%	21,046	22,720	24,969	1.9%
China	13,254	14,902	16,851	2.5%	2,561	3,022	3,897	5.2%	2,823	3,958	4,854	4.2%	55,862	71,741	85,718	3.6%
Hong Kong	115	114	109	-0.9%	413	449	501	2.2%	3,379	3,578	3,786	1.1%	8,033	8,163	8,546	0.9%
India	140	154	204	5.8%	130	149	197	5.7%	5,600	7,045	9,179	5.4%	23,320	27,562	36,212	5.6%
Indonesia	88	98	113	2.9%	58	66	77	3.1%	200	247	303	4.2%	4,998	5,522	6,641	3.8%
Japan	7,411	7,098	7,140	0.1%	6,212	6,733	7,095	1.1%	21,258	23,005	24,425	1.2%	132,995	136,616	142,115	0.8%
Korea	3,590	6,555	7,074	1.5%	1,574	3,100	3,531	2.6%	2,451	3,945	4,519	2.8%	21,198	28,192	31,419	2.2%
Malaysia	117	126	150	3.5%	95	107	120	2.3%	474	686	870	4.9%	5,174	6,250	7,469	3.6%
New Zealand	82	81	84	0.7%	97	99	106	3.7%	1,435	1,661	1,830	2.0%	4,167	4,539	5,001	2.0%
Philippines	71	77	92	3.6%	84	90	106	3.3%	695	808	1,001	4.4%	3,537	3,966	4,787	3.8%
Singapore	163	156	161	0.6%	682	644	709	1.9%	3,809	4,231	4,488	1.2%	9,523	9,901	10,519	1.2%
Taiwan	2,118	2,155	2,185	0.3%	103	125	141	2.4%	3,517	3,497	3,720	1.2%	9,944	10,236	10,787	1.1%
Thailand	120	135	153	2.5%	95	110	130	3.4%	465	595	740	4.5%	4,239	5,108	6,069	3.5%
Vietnam	50	58	72	4.4%	9	11	11	0.0%	80	111	150	6.2%	1,100	1,430	1,807	4.8%
Subtotal	27,815	32,194	34,790	1.6%	12,222	14,812	16,631	2.3%	63,671	72,434	79,121	1.8%	305,337	341,992	377,058	2.0%
European Union																
Austria	233	212	228	1.5%	456	465	500	1.4%	1,777	1,818	1,997	1.9%	7,473	7,418	8,038	1.6%
Belgium	137	132	141	1.3%	493	539	581	1.5%	2,417	2,625	2,841	1.6%	11,583	12,122	13,088	1.5%
Czech Republic	150	159	170	1.3%	46	54	64	3.5%	1,098	1,309	1,530	3.2%	5,577	6,399	7,266	2.6%
Denmark	235	215	225	0.9%	457	468	508	1.7%	2,046	2,100	2,332	2.1%	7,991	7,976	8,641	1.6%
Estonia	31	32	37	2.9%	45	51	56	1.9%	105	135	158	3.2%	505	658	748	2.6%
Finland	176	170	185	1.7%	312	342	369	1.5%	1,251	1,422	1,573	2.0%	5,270	5,647	6,176	1.8%
France	365	349	381	1.8%	3,097	3,342	3,627	1.4%	11,277	11,301	12,053	1.3%	60,529	60,371	64,958	1.5%
Germany	590	547	586	1.4%	4,338	4,434	4,773	1.5%	12,766	13,097	13,894	1.2%	78,549	78,191	83,555	1.3%
Greece	38	37	44	3.5%	48	52	57	1.9%	91	98	108	2.0%	4,364	4,497	5,067	2.4%
Hungary	139	151	162	1.4%	78	90	105	3.1%	858	959	1,112	3.0%	4,772	5,340	6,032	2.5%
Ireland	113	104	118	2.6%	227	233	260	2.2%	475	526	580	2.0%	2,600	2,972	2,972	2.2%
Italy	387	374	412	2.0%	1,326	1,374	1,487	1.6%	8,016	8,361	8,928	1.3%	35,818	36,477	39,427	1.6%
Latvia	46	53	61	2.9%	50	59	65	2.0%	111	139	164	3.4%	544	666	769	2.9%
Lithuania	46	53	60	2.5%	46	56	66	3.3%	115	159	199	3.2%	851	1,001	1,159	3.0%
Luxembourg	11	8	8	0.0%	83	83	66	1.6%	267	199	218	1.8%	665	492	635	1.7%
Netherlands	134	124	135	1.7%	1,089	1,112	1,202	1.6%	2,818	2,866	3,142	1.9%	18,504	18,451	20,021	1.6%
Poland	340	362	411	2.6%	125	148	177	3.6%	1,258	1,524	1,872	4.2%	8,976	10,270	12,193	3.5%
Portugal	253	246	276	2.3%	74	76	84	2.0%	1,170	1,223	1,307	1.3%	7,510	7,647	8,361	1.8%
Slovakia	92	109	121	2.1%	70	85	102	3.7%	109	138	161	3.1%	1,367	1,680	1,953	3.1%
Slovenia	41	46	51	2.1%	82	104	119	2.7%	113	139	156	2.3%	832	996	1,116	2.3%
Spain	202	201	230	2.7%	630	655	725	2.1%	1,985	2,131	2,437	2.7%	14,895	15,540	17,581	2.5%
Sweden	471	444	462	0.8%	821	928	1,003	1.6%	3,851	4,357	4,665	1.4%	15,107	16,286	17,342	1.3%
United Kingdom	655	626	681	1.7%	4,127	4,211	4,565	1.6%	12,725	13,292	14,414	1.6%	63,160	64,296	69,680	1.6%
Subtotal	4,885	4,754	5,185	1.8%	18,024	18,695	20,261	1.6%	66,699	69,695	75,801	1.6%	357,442	365,090	396,678	1.7%

** Total IT companies include IT hardware, software, IT services, and channels
** Compound Annual Growth Rate

Projected IT Company Growth (Continued)
(Without Additional Privacy Rate Reduction)

Country	Hardware Companies						Software Companies						IT Services Companies						Total IT Companies*																																																																																																																																																																																													
	2000		2004		2009		2004		2009		2009**		2000		2004		2009		2000		2004		2009		2009**																																																																																																																																																																																							
	Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**		Average Growth 2004-2009**																																																																																																																																																																																							
Latin America	244	257	294	2.7%	201	175	220	4.7%	223	182	252	6.7%	7,074	6,643	8,270	4.5%	302	298	325	1.7%	867	925	1,057	2.7%	2,123	2,208	2,542	2.9%	20,964	21,512	24,250	2.4%	30	29	33	2.6%	93	82	93	2.5%	436	472	515	1.8%	1,994	2,076	2,298	2.1%	36	34	36	1.1%	75	102	115	2.4%	576	640	759	3.5%	2,800	2,985	3,383	2.5%	8	8	8	0.0%	19	23	28	4.0%	46	54	62	2.8%	297	336	379	2.4%	8	8	8	0.0%	51	52	60	2.9%	52	53	60	2.5%	383	390	438	2.3%	185	189	203	1.4%	315	340	383	2.4%	1,052	1,168	1,305	2.2%	9,537	10,314	11,405	2.0%	6	6	6	0.0%	14	16	17	1.2%	34	38	44	3.0%	217	243	271	2.2%	20	20	20	0.0%	22	23	23	0.0%	468	499	539	1.6%	1,657	1,733	1,855	1.4%	6	6	6	0.0%	14	15	15	0.0%	33	37	42	2.6%	214	233	259	2.1%	34	35	38	1.7%	114	122	138	2.5%	636	523	661	4.8%	2,471	2,886	3,276	3.2%	879	890	977	1.9%	1,765	1,875	2,149	2.8%	5,679	5,874	6,781	2.9%	47,863	48,936	55,694	2.6%																
Middle East Africa	40	42	50	3.5%	71	83	102	4.2%	100	95	106	2.2%	706	733	862	3.3%	216	216	229	1.2%	415	405	440	1.7%	297	289	305	1.1%	3,458	3,425	3,658	1.3%	9	10	10	0.0%	7	8	8	0.0%	42	47	55	3.2%	510	604	707	3.3%	62	70	84	3.7%	36	39	44	2.4%	1,239	1,399	1,647	3.3%	5,161	5,936	6,992	3.3%	105	117	127	1.7%	147	177	216	4.1%	1,899	2,302	2,976	5.3%	10,244	12,082	14,543	3.8%	91	100	128	5.1%	144	134	164	4.1%	161	160	186	3.1%	6,390	6,607	8,136	4.3%	23	28	33	3.3%	14	15	20	5.9%	468	535	634	3.5%	1,948	2,292	2,713	3.4%	546	583	661	2.9%	834	861	994	4.1%	4,206	4,827	5,909	3.4%	28,417	31,679	37,611	0.0%																																																																																
Rest of Europe	9	11	10	-2.4%	4	7	11	10.1%	9	10	14	7.3%	102	132	171	5.3%	13	15	14	-1.5%	9	11	17	9.7%	12	12	18	8.0%	263	297	364	4.1%	101	116	138	3.5%	52	64	76	7.6%	50	58	73	4.7%	1,364	1,622	1,971	4.0%	45	48	53	2.0%	70	88	105	3.6%	85	107	127	3.5%	1,470	1,683	1,950	3.0%	36	45	55	3.9%	4	5	10	14.9%	28	38	67	12.0%	646	841	1,244	8.1%	6	7	7	0.0%	10	12	15	4.6%	9	11	13	3.4%	198	238	281	3.4%	192	185	192	0.7%	337	363	396	1.8%	1,807	2,056	2,289	2.2%	6,659	7,166	7,798	1.7%	45	49	54	2.0%	30	47	57	3.9%	60	73	99	6.3%	1,155	1,450	1,665	2.8%	509	642	812	4.8%	102	140	187	6.0%	1,618	2,264	3,268	7.6%	11,960	16,047	21,684	6.2%	53	60	71	3.4%	70	87	119	6.5%	96	116	141	4.0%	867	1,033	1,294	4.6%	403	383	408	1.3%	832	879	940	1.4%	3,289	3,561	3,785	1.2%	15,066	15,565	16,582	1.3%	49	57	72	4.8%	13	15	20	5.9%	122	151	185	4.1%	3,064	3,311	4,139	4.6%	1,438	1,575	1,844	3.2%	1,582	1,743	1,977	2.6%	7,283	8,560	10,196	3.6%	43,026	49,598	59,491	3.7%
North America	864	770	789	0.5%	958	952	947	-0.1%	7,188	6,968	6,971	0.0%	25,818	24,792	24,755	0.0%	27	27	28	0.7%	34	40	45	2.4%	200	227	267	3.3%	1,014	1,066	1,212	2.6%	12,701	11,850	12,760	1.5%	16,603	18,004	19,770	1.9%	13,389	14,849	16,112	1.6%	294,614	299,962	325,761	1.7%	13,592	12,647	13,577	1.4%	17,595	18,996	20,762	1.8%	20,777	22,044	23,350	1.2%	321,446	325,820	351,728	1.5%																																																																																																																																																
TOTAL	47,426	50,671	54,801	1.6%	52,796	57,847	63,856	2.0%	163,183	177,313	194,926	1.9%	1,067,095	1,119,649	1,229,961	1.9%	47,426	50,671	54,801	1.6%	52,796	57,847	63,856	2.0%	163,183	177,313	194,926	1.9%	1,067,095	1,119,649	1,229,961	1.9%																																																																																																																																																																																

* Total IT companies include IT hardware, software, IT services, and channels
** Compound Annual Growth Rate

Projected IT Tax Growth (Continued)

(Without Additional Piracy Rate Reduction)

Country	2000	2004	2009
Latin America			
Argentina	\$ 747.7	\$ 448.3	\$ 858.1
Brazil	\$ 3,654.9	\$ 3,499.3	\$ 4,949.5
Chile	\$ 251.9	\$ 285.6	\$ 401.6
Colombia	\$ 136.2	\$ 158.4	\$ 232.7
Costa Rica	\$ 34.5	\$ 45.1	\$ 66.1
Dominican Repub	\$ 11.0	\$ 11.5	\$ 15.7
Mexico	\$ 1,865.5	\$ 2,209.4	\$ 3,026.0
Panama	\$ 25.9	\$ 33.2	\$ 51.8
Peru	\$ 71.0	\$ 78.6	\$ 100.0
Uruguay	\$ 21.3	\$ 23.0	\$ 32.8
Venezuela	\$ 266.9	\$ 172.8	\$ 254.7
Subtotal	\$ 7,087.9	\$ 6,963.1	\$ 9,984.1
Middle East Africa			
Egypt	\$ 17.7	\$ 33.8	\$ 56.6
Israel	\$ 3,586.6	\$ 3,345.4	\$ 4,103.9
Kuwait	\$ 8.5	\$ 9.2	\$ 12.8
Saudi Arabia	\$ 195.2	\$ 273.5	\$ 395.0
South Africa	\$ 1,533.3	\$ 2,191.1	\$ 3,597.5
Turkey	\$ 503.6	\$ 663.7	\$ 1,251.4
United Arab Emir	\$ 91.7	\$ 111.7	\$ 155.7
Subtotal	\$ 5,936.7	\$ 6,628.4	\$ 9,572.7
Rest of Europe			
Albania	\$ 3.4	\$ 7.5	\$ 16.5
Bosnia	\$ 4.9	\$ 8.2	\$ 22.2
Bulgaria	\$ 47.0	\$ 69.2	\$ 32.5
Croatia	\$ 116.4	\$ 207.0	\$ 316.7
Kazakhstan	\$ 9.5	\$ 23.4	\$ 78.8
Macedonia	\$ 14.3	\$ 21.0	\$ 35.7
Norway	\$ 3,749.5	\$ 4,359.1	\$ 6,027.4
Romania	\$ 70.3	\$ 121.7	\$ 190.4
Russia	\$ 348.0	\$ 684.5	\$ 1,548.3
Serbia-Monteneg	\$ 53.8	\$ 81.6	\$ 171.9
Switzerland	\$ 11,158.2	\$ 11,876.4	\$ 14,601.1
Ukraine	\$ 50.0	\$ 94.2	\$ 200.7
Subtotal	\$ 280,988.0	\$ 309,841.4	\$ 412,890.1
North America			
Canada	\$ 27,126.3	\$ 27,250.3	\$ 29,521.9
Puerto Rico	\$ 358.5	\$ 436.0	\$ 614.5
United States	\$ 367,421.1	\$ 397,989.2	\$ 531,658.1
Subtotal	\$ 394,905.9	\$ 425,675.6	\$ 561,794.5
TOTAL	\$ 794,550.3	\$ 862,199.9	\$ 1,135,456.5

Projected IT Tax Growth

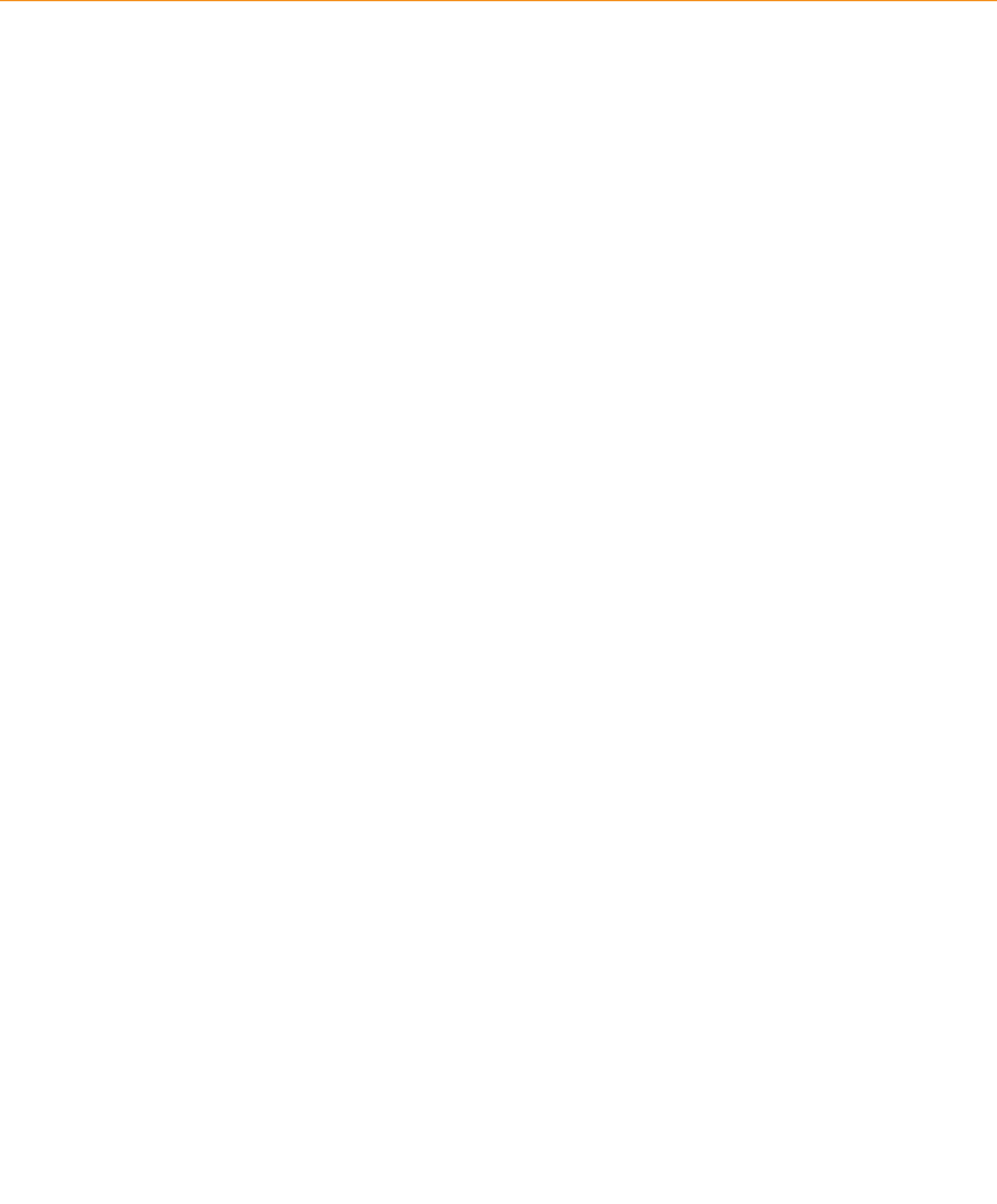
(Without Additional Piracy Rate Reduction)

Country	2000	2004	2009
IT Related Tax Revenues (\$M)			
Asia Pacific			
Australia	\$ 7,122.6	\$ 8,282.5	\$ 10,809.1
China	\$ 1,406.5	\$ 2,072.5	\$ 3,872.0
Hong Kong	\$ 629.4	\$ 794.6	\$ 992.9
India	\$ 220.3	\$ 349.8	\$ 1,105.6
Indonesia	\$ 114.2	\$ 156.6	\$ 282.5
Japan	\$ 86,397.9	\$ 89,435.6	\$ 106,314.9
Korea	\$ 8,751.1	\$ 10,039.3	\$ 15,084.8
Malaysia	\$ 1,879.6	\$ 2,683.7	\$ 4,297.4
New Zealand	\$ 1,190.5	\$ 1,474.2	\$ 2,008.8
Philippines	\$ 66.8	\$ 76.5	\$ 136.2
Singapore	\$ 1,121.4	\$ 1,278.6	\$ 1,816.2
Taiwan	\$ 2,565.3	\$ 2,917.2	\$ 3,784.8
Thailand	\$ 89.7	\$ 135.8	\$ 234.6
Vietnam	\$ 13.2	\$ 23.0	\$ 48.1
Subtotal	\$ 111,568.5	\$ 119,719.9	\$ 150,787.8
European Union			
Austria	\$ 7,603.8	\$ 7,844.0	\$ 10,121.6
Belgium	\$ 9,336.0	\$ 10,255.0	\$ 13,052.2
Czech Republic	\$ 557.2	\$ 823.3	\$ 1,402.7
Denmark	\$ 7,678.8	\$ 8,140.4	\$ 10,648.3
Estonia	\$ 49.1	\$ 77.0	\$ 120.1
Finland	\$ 5,250.1	\$ 5,948.5	\$ 8,219.1
France	\$ 50,167.1	\$ 53,358.5	\$ 68,212.5
Germany	\$ 53,780.9	\$ 56,442.2	\$ 68,386.4
Greece	\$ 1,702.5	\$ 1,924.7	\$ 2,910.5
Hungary	\$ 861.0	\$ 1,304.5	\$ 2,009.6
Ireland	\$ 2,104.8	\$ 2,483.1	\$ 3,605.3
Italy	\$ 22,922.7	\$ 23,607.8	\$ 29,679.5
Latvia	\$ 41.1	\$ 71.4	\$ 109.0
Lithuania	\$ 48.7	\$ 82.8	\$ 113.6
Luxembourg	\$ 745.4	\$ 976.1	\$ 1,302.6
Netherlands	\$ 16,832.5	\$ 17,541.9	\$ 22,898.3
Poland	\$ 1,037.7	\$ 1,475.4	\$ 2,568.8
Portugal	\$ 1,322.3	\$ 1,351.1	\$ 1,786.8
Slovakia	\$ 211.9	\$ 362.1	\$ 602.1
Slovenia	\$ 183.6	\$ 284.1	\$ 460.6
Spain	\$ 10,384.9	\$ 11,553.0	\$ 15,870.5
Sweden	\$ 15,701.6	\$ 16,523.3	\$ 20,573.7
United Kingdom	\$ 40,918.3	\$ 45,102.5	\$ 59,498.2
Subtotal	\$ 249,442.1	\$ 267,532.7	\$ 344,152.1

Conclusion

Because software has moved to the forefront of global growth industries, software piracy reduction can be a strategic tool for unlocking vast economic growth—creating new jobs, taxes and business opportunities. Even a modest and achievable 10-point reduction in software piracy enables consumers, local entrepreneurs, workers, governments, and economies to benefit.

With decisive and determined efforts to reduce software piracy, the IT sector's rapid rate of growth can not only continue but accelerate. More rapid IT growth delivers jobs, taxes and other benefits faster. Continued reductions in software piracy can be a policy tool that governments use to unlock the digital economy's full economic potential in their market. With the right policy choices, a new era of innovation and opportunity can be spread around the globe.



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