



DIGITAL PLANET 2010

EXECUTIVE SUMMARY



OCTOBER 2010

Published by World Information Technology and Service Alliance (WITSA)

Research Conducted by



GLOBAL
HEALTH

e-Government 2.0: The best practice of Taiwan e-Government Solutions

One Stop Service Across Government Agencies

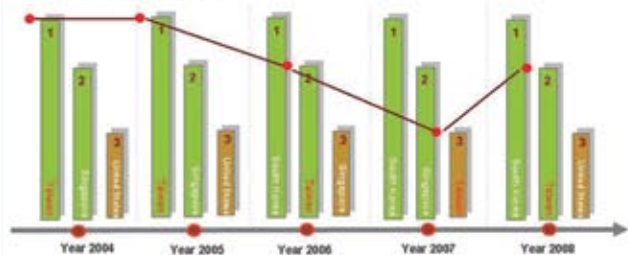
The Trend of "e-Government" as a Service

"e-Government" service becomes a must among governments around the world. E-Government has been taken as an important criterion of national development and competitiveness.

e-Government Status of Taiwan

Taiwan's success e-Government has been highly recognized internationally, it has been ranked among the top three countries consecutively in the Brown University Global e-Government yearly study since 2004.

According to "the Global E-Government Report," Taiwan has been ranked among Top 3 by Brown University of the U.S.A. since 2004



e-Government Ranking of Taiwan

III's e-Government Services

III offers e-Government consulting services that include strategic planning, current situation assessment, infrastructure and architecture planning. Using III's e-Government service and developing a suitable e-Government Service Platform, a government can integrate almost all government services under a single entry portal, offer one-stop-service across government agencies, and gain the better citizen-to-government satisfaction.

Government Service Network 	e-Household Registration Service 	e-Taxation Service
e-Commerce & Industry service 	The e-Government Portal (MyEGOV+GSP) 	Official Document Interchange
e-Procurement Service 	Authority 	e-Job Service

Key e-Government Initiatives

About Institute for Information Industry

III was incorporated in 1979, through the joint efforts of public and private sectors, as a Non-Government Organization (NGO), to support the development and growth of information industry as well as information society in Taiwan. III received the Chairman Award of WITSA 2010.

INSTITUTE FOR INFORMATION INDUSTRY
9F, NO. 106, Section 2, Heping East Road,
Taipei 106, Taiwan, R.O.C. <http://www.iii.org.tw>
Tel: 886-2-2737-7009 Fax: 886-2-2738-3929

DIGITAL PLANET 2010

The Global Information Economy

Published by
The World Information Technology and Services Alliance (WITSA)



Based on research conducted by IHS Global Insight, Inc.

© June 2010

Copyright The World Information Technology and Services Alliance. All rights reserved.

Cover Art: HP Productions, Inc.

Table of Contents

Letter from the WITSA Chairman	6
About WITSA	7
About IHS Global Insight	8
WITSA Members	9
Introduction: A Picture of the Digital Planet	13
Executive Summary	14
Complete List of Countries	19
Definitions	
Product Groups	20
Market Segments	21

Letter from the WITSA Chairman



Dato' Dan E. Khoo
Chairman

Dear Colleague:

WITSA is pleased to present to you the Digital Planet 2010, the 7th edition of a biennial publication that provides a single comprehensive reference on global ICT trends.

Produced in collaboration with IHS Global Insight, a global leader in market analysis and intelligence, this edition comes to you during a defining period when the global economy is returning to health after the financial turbulence of the previous year.

Like most industries, ICT suffered a dip in global ICT spending for 2009 although the contraction of 3% is much smaller than the 12% decline in overall global trade, as reported by the World Trade Organization (WTO). You will be pleased to note that according to this report, ICT spending is set to rebound aggressively over the next few years.

The anticipated upswing will begin this year, with pent-up demand fueling spending growth of 7.4% before peaking at 8.7% next year and flattening out at about 6% from 2013 onwards. The Digital Planet 2010's forecast has global ICT spending reaching the pre-recession levels by 2013. This report also offers welcomed news for every regional market as well as market segment covering the various subsectors of ICT such as Communications, Hardware, Software and Services.

This revival is also a boon for other industries beyond our own as ICT increasingly plays the role as critical enabler of economic and industrial growth. In this regard, Digital Planet is a vital and relevant guide for not only ICT players, but also policy makers, decision makers in other industries, academics, research and the general public with its valuable data based on spending in 75 countries.

I have no doubt that you will benefit greatly from the information and trends outlined in this report. For more information about WITSA, please visit our web site at www.witsa.org

Thank you for your interest in our publication. I trust you will enjoy this unique report.

Sincerely,

Dato' Dan E. Khoo
Chairman



About WITSA

The World Information Technology and Services Alliance (WITSA) is a consortium of leading information and communications technology (ICT) industry associations from over 70 economies, representing more than 20,000 ICT companies, worldwide.

As the recognized global voice of the ICT industry, WITSA is dedicated to advocating policies that advance industry growth and development; facilitating international trade and investment in ICT products and services; strengthening WITSA's national industry associations; and providing members with a broad network of professional contacts.

WITSA awards both the World Congress on Information Technology (WCIT), the premier global industry sponsored ICT conference and the Global Public Policy Summit.

WITSA members are leaders in a globally interconnected marketplace. Because the challenges facing the ICT industry are undisputedly global in nature, WITSA members work together to achieve a shared vision on important issues of common interest. WITSA makes it possible for its members — ranging from Mongolia and Argentina to Kenya and the United States — to identify common issues and priorities, exchange valuable information, and present a united position on industry issues.

Public Policy Advocacy: A Unified Global Voice

Founded in 1978 as the World Computing Services Industry Association, WITSA has increasingly assumed a leading advocacy role in international public policy toward the goal of creating a robust global information infrastructure, including encouraging cross-industry and government cooperation to enhance information security; safeguarding the viability and continued growth of the Internet and electronic commerce; increasing competition through open markets and regulatory reform; reducing tariff and non-tariff trade barriers to ICT goods and services; bridging the education and skills gap; and protecting intellectual property.

Through its active advocacy programs, WITSA has played a leading role in shaping the global environment for ICT growth and development. WITSA strengthens the industry at large by promoting a fair trade and other positions in multilateral organizations, including the World Trade Organization, the Organization for Economic Cooperation and Development, the World Bank, Asia-Pacific Economic Cooperation, the International Telecommunications Union, the Internet Governance Forum, the Internet Corporation for Assigned Names and Numbers, and other international forums where policies affecting industry interests are debated and shaped.

International Networking and Promotion

WITSA's network of national associations is a unique instrument for information exchange in the global ICT marketplace. WITSA provides its members opportunities to interact and learn from each other. In addition, through its publications and events, WITSA promotes its member associations by highlighting their accomplishments on its Web site, while keeping members apprised of industry developments.

Promoting IT Growth and Development

WITSA undertakes partnerships and initiates industry-wide efforts for the overall benefit of the global ICT community and its beneficiaries worldwide.

WITSA recognizes that the ICT industry is the key driver of the global economy. WITSA is committed to leveraging its unique strengths to ensuring that this industry continues to develop to reach its maximum potential.

For more information about WITSA please refer to: www.witsa.org

About IHS Global Insight

IHS Global Insight (www.globalinsight.com) provides the most comprehensive economic and financial information available on countries, regions and industries, using a unique combination of expertise, models, data and software within a common analytical framework to support planning and decision-making. IHS Global Insight founded the modern economic forecasting industry more than 40 years ago, and today the company is recognized as the most consistently accurate economic forecasting company in the world. Through the world's first same-day analysis and risk assessment service, IHS Global Insight provides immediate insightful analysis of market conditions and key events around the world, covering economic, political, and operational factors. IHS (NYSE: IHS, www.ihs.com)) is a leading global source of critical information and insight that enables innovative and successful decision-making for customers ranging from governments and multinational companies to smaller companies and technical professionals. IHS data and expertise spans four areas of information encompassing the most important concerns facing global business today: Energy, Product Lifecycle, Security and Environment. IHS has been in business since 1959 and employs approximately 3,800 people in 20 countries.

WITSA Members

Afghanistan	National ICT Association of Afghanistan (NICTAA) URL: http://www.nictaa.af
Algeria	Algerian Information Technology Association (AITA) URL: http://www.aita-dz.org
Argentina	Cámara de Empresas de Software y Servicios Informáticos (CESSI) URL: http://www.cessi.org.ar
Armenia	Armenian Union of Information Technology Enterprises (UITE) URL: http://www.uite.org
Australia	Australian Information Industry Association (AIIA) URL: http://www.aiia.com.au
Bangladesh	Bangladesh Computer Samity (BCS) URL: http://www.bcs-bd.org
Benin	AP.TIC Benin – The Professionals of Information and Communication Technology Association URL: http://www.apticbenin.org
Bermuda	Business Technology Division of the Bermuda Chamber of Commerce URL: http://www.bermudacommerce.com/divisions/business-technology.html
Brazil	Assespro Sao Paulo URL: http://www.assespro-sp.org.br
Bulgaria	Bulgarian Association of Information Technologies (BAIT) URL: http://www.bait.bg
Cambodia	ICT Association of Cambodia (ICT:CAM) URL: http://www.ictcam.org.kh
Canada	Information Technology Association of Canada (ITAC) URL: http://www.itac.ca
Chile	Chilean ICT Association membership (Gechs) URL: http://www.gechs.cl
Chinese Taipei	Information Service Industry Association of Chinese Taipei (CISA) URL: http://www.cisanet.org.tw
Colombia	Colombian Software Industry Federation (FEDESOFIT) URL: www.fedesoft.org
Costa Rica	Costa Rican Chamber of Information and Communication Technologies (Camtic) URL: http://www.camtic.org
Ecuador	Ecuadorian Software Association (AESOFT) URL: www.aesoft.com.ec
Egypt	Egyptian Information, Telecommunications, Electronics and Software Alliance (EITESAL) URL: http://www.eitesal.org
Finland	Federation of the Finnish Information Industries (TIETOALAT) URL: http://www.finnishinformationindustries.net
France	Syntec Informatique URL: http://www.syntec-informatique.fr/
Greece	Federation of Hellenic Information Technology and Communications Enterprises (SEPE) URL: http://www.sepe.gr
Guatemala	Software Commission of Guatemala (SOFEX) URL: www.guatemalansoftware.com

WITSA Members

Hong Kong	Hong Kong Information Technology Federation (HKITF) URL: http://www.hkitf.org.hk
Hungary	Hungarian Association of IT Companies (IVSZ) URL: http://www.ivsz.net
India	National Association of Software and Service Companies (NASSCOM) URL: http://www.nasscom.org
Indonesia	ASPILUKI - Indonesian Telematic Software Association URL: http://www.aspiluki.or.id
Israel	Israeli Association of Software Houses (IASH) URL: http://www.iash.org.il
Jamaica	Jamaica Computer Society (JCS) URL: http://www.jamaicacomputersociety.org/home/index.php
Japan	Japan Information Technology Services Industry Association (JISA) URL: http://www.jisa.or.jp
Jordan	Information Technology Association - Jordan (int@j) URL: http://www.intaj.net
Kazakhstan	Association of IT Companies of Kazakhstan (ITK) URL: http://www.itk.kz
Kenya	Computer Society of Kenya (CSK) URL: http://www.cskonline.org
Laos	Lao ICT Commerce Association (LICA) URL: http://www.lica.datacomlao.com
Lebanon	Professional Computer Association of Lebanon (PCA) URL: http://www.pca.org.lb
Lithuania	Association of the information technology, telecommunications and office equipment companies of Lithuania (INFOBALT) URL: http://www.infobalt.lt
Malaysia	Association of the Computer And Multimedia Industry Malaysia (PIKOM) URL: http://www.pikom.org.my
Mexico	Mexican Information Technology Industry Association (AMITI) URL: http://www.amiti.org.mx
Mongolia	Mongolian National Information Technology Association / Mongolian Information Development Association (MIDAS/MONITA NGO) URL: http://www.ict.mn/midas
Morocco	Moroccan Federation of Information Technology, Telecommunication and Offshoring (APEBI) URL: http://www.apebi.org.ma
Nepal	Computer Association of Nepal (CAN) URL: http://www.can.org.np
Netherlands	ICT ~ Office URL: http://www.ictoffice.nl
Netherlands Antilles	Curacao Information & Communication Association (CICA) URL: http://www.cica.an
New Zealand	New Zealand Information & Communications Technology Group (NZICT Group) URL: http://www.ict.org.nz

WITSA Members

Nigeria	Information Technology Industry Association of Nigeria (ITAN), Nigeria URL: http://www.itan.org.ng
Norway	ICT Norway (IKT Norge) URL: http://www.ikt-norge.no
Pakistan	The Pakistan Software Houses Association (PASHA) URL: http://www.pasha.org.pk
Palestine	Palestinian IT Association (PITA) URL: http://www.pita-palestine.org
Philippines	Information Technology Association of the Philippines (ITAP) URL: http://www.itaphil.org
Poland	The Polish Chamber of Information Technology and Telecommunications URL: http://www.piit.org.pl
Republic of Korea	Federation of Korean Information Industries (FKII) URL: http://www.fkii.or.kr
Republic of Macedonia	Macedonian Association of Information Technology (MASIT) URL: http://www.masit.org.mk
Romania	Association for Information Technology and Communications of Romania (ATIC) URL: http://www.atic.org.ro
Russia	Russian Information & Computer Technologies Industry Association (APKIT) URL: http://www.apkit.ruu
Rwanda	Rwanda ICT Association (RICTA)
Senegal	Senegalese Information Technology Association (SIT'SA) URL: www.sitsa.sn
Serbia	Union of ICT Societies (JISA) URL: www.jisa.org.yu
Singapore	Singapore infocomm Technology Federation (SiTF) URL: http://www.sitf.org.sg
South Africa	Information Technology Association of South Africa (ITA) URL: http://www.ita.org.za
Spain	Spanish Association of Electronics, Information Technology and Telecommunications Companies (AETIC) URL: http://www.aetic.es
Sri Lanka	Sri Lanka Association of Software and Services Companies (SLASSCOM) URL: http://www.slasscom.lk
Syria	Syrian Computer Society (SCS) URL: www.scs.org.sy
Tanzania	Tanzania Information and Communication Technologies Association (TICTA)
Thailand	The Association of Thai Computer Industry (ATCI) URL: http://www.atci.or.th
Trinidad & Tobago	ICT Society of Trinidad and Tobago (ICTS) URL: http://www.icts.org.tt

WITSA Members

Tunisia	Tunisian ICT Federation (UTICA) URL: http://www.itintunisia.com
Turkey	Turkish Informatics Industry Association (TUBISAD) URL: http://www.tubisad.org.tr
Uganda	The Private-Sector ICT Association of Uganda (PICTA) URL: http://www.picta.or.ug
Ukraine	Association "Information Technologies of Ukraine" (IT Ukraine) URL: http://www.itukraine.org.ua
United Kingdom	The Information Technology, Telecommunications and Electronics Association (Intellect) URL: http://www.intellectuk.org
United States	TechAmerica URL: http://www.techamerica.org
Uruguay	Uruguayan Chamber of Information Technology (CUTI) URL: http://www.cuti.org.uy
Venezuela	CAVEDATOS - Venezuelan Chamber of IT Companies URL: http://www.cavedatos.org.ve
Vietnam	VINASA - Vietnam Software Association URL: http://www.vinasa.org.vn
Zimbabwe	Computer Suppliers' Association of Zimbabwe (COMSA) http://www.comsa.org.zw

About this Publication

Digital Planet 2010, produced by the World Information Technology and Services Alliance (WITSA) using data provided by IHS Global Insight, Inc. (GI), continues the global ICT expansion story begun in Digital Planet 1998 and updated in 2000, 2002, 2004, 2006 and 2008. Here, in a single comprehensive volume, covering the world's 75 largest ICT buying nations and regions, is the fact-based tale of the digital revolution. WITSA publishes this guide to help policy makers, technology developers and the general public understand the ICT trends reshaping society today, from the global marketplace to the local classroom.

Digital Planet 2010 brings current the 2008 version of this book. Continuing the breadth of coverage and comprehensive data of ICT spending in over 10 vertical market segments, this edition also differs from earlier works in a number of important ways:

- Detailed data are available on 75 countries as opposed to 70 in the past
- Forecast data extends through 2013 versus 2011 in the last printed edition

The 2010 edition will continue to be offered online and updated semi-annually. The result is a one-source, one-of-a-kind reference that brings the world's use of information and communications technology to the reader's fingertips.

A Word about Methodology

Digital Planet is a unique publication. The IHS Global Insight methodology provides detailed estimates and forecasts of market segment size and growth characteristics. The analysis focuses on industry segments in 75 countries.

The market segment analyses for IT products and services are undertaken in the context of IHS Global Insight's comprehensive and integrated modeling system. A thorough top-down/bottom-up analytical approach draws on the firm's economic analysis services and numerous outside sources. To provide detailed and accurate market data and forecasts, Global Insight's economists and analysts use the firm's core strengths in international macroeconomic, industry, demographic, and regional forecasting. They augment these capabilities with other databases and resources to provide a complete solution. The approach integrates data, information, and support in a way that few organizations can match.

The business market is segmented into industry groups in 75 countries. This detailed bottom-up analysis is combined with the top-down view of total IT usage of each product and service in each segment to blend the best aspects of both approaches.

Executive Summary

Figure 1
Global ICT Spending
(\$US Trillions)

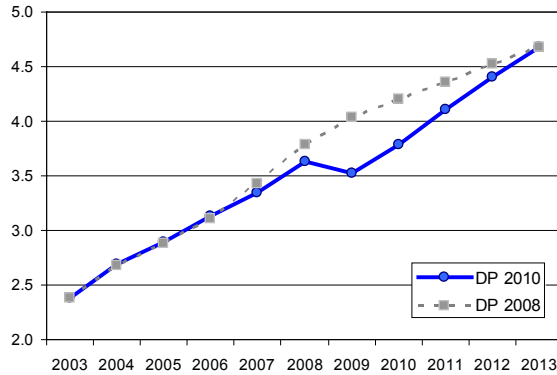


Figure 2
Global ICT Spending
(Annual Percent Change)

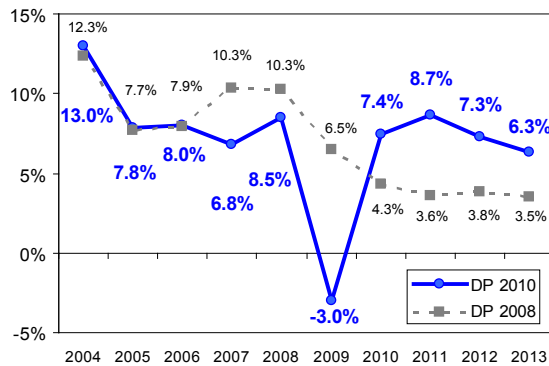
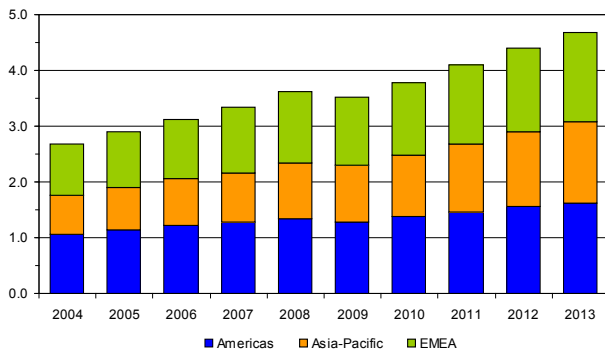


Figure 3
Global ICT Spending by Region¹
(\$US Trillions)



¹Due to the small size of the Middle East and African ICT markets relative to other regions, these markets were aggregated with Europe for this graphic

The world is a much-changed place in the two years since the 2008 release of Digital Planet. Back then, information and communications technology (ICT) spending was expected to enter a period of moderating growth, indicative of its continuing maturity as an industry sector. Instead, the Great Recession fostered a decline of 3.0% in global ICT spending in 2009, thereby resetting the industry growth trajectory to one that will take until beyond 2013 to fully recover. As shown in Figure 1, the cumulative gap between the current and previous Digital Planet forecasts represents approximately \$US 1.5T in unrealized sales of ICT products and services.

Revisions to the underlying source data and econometric models resulted in lower historical growth rates for 2007 and 2008, though the ICT sector still posted solid growth. Figure 2, which depicts the annual percent change in ICT spending, illustrates the swiftness and severity of the recessionary impact. The ICT sector contracted by \$US 108B (-3.0%) in 2009. The major pain points were the computer hardware and communications equipment subsectors, which collectively shrank \$US 71B. Coming out of the recession, pent-up demand will be released, fueling a surge in ICT spending throughout 2011 after which long-term growth should moderate to approximately 6%.

During the recessionary period, Global ICT Spend contracted 3.0%, lead by declines in the Americas (-4.4%) and Europe (-6.9%), that were somewhat offset by growth in Asia-Pacific (+2.4%), Middle East (+6.6%) and Africa (+2.1%). As indicated in Figure 3, all regions will grow throughout the forecast interval. The Americas will grow the slowest at 5.9% per year from 2009 through 2013, while Asia-Pacific will post compound annual growth of 9.5%. Despite its slower growth rate, the Americas will maintain a slight edge over the other regions as the largest market for ICT product and services (34.6% in 2013). However, Asia-Pacific's share of market will rise from 28.8% in 2009 to 31.1% in 2013.

Figure 4
Global ICT Spending by Technology
(\$US Trillions)

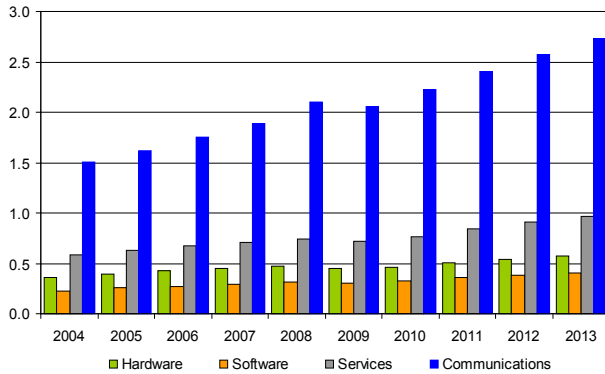


Figure 5
Global ICT Spending by Major Segment
(\$US Trillions)

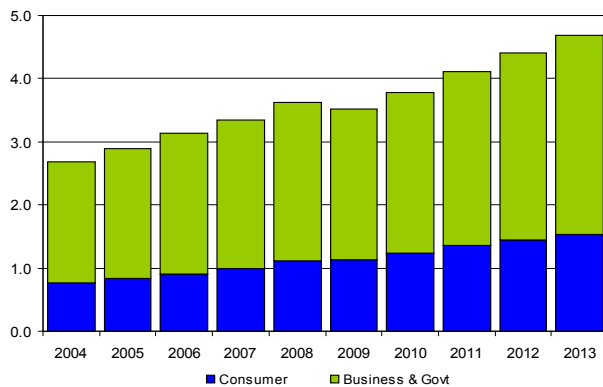
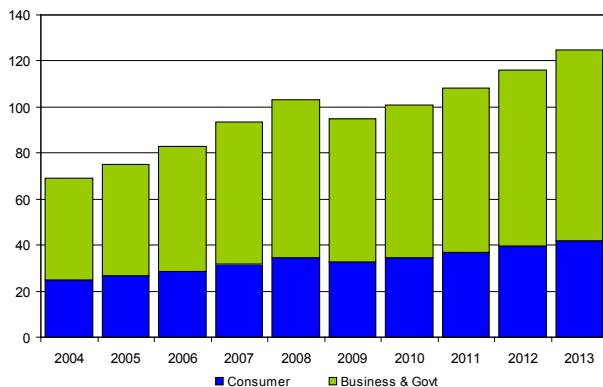


Figure 6
Global Consumer and Business Commerce
(\$US Trillions)



All four technology groups will also grow through the forecast interval. Communications technology dominates the ICT sector, accounting for approximately 58% of spending over the forecast period. With nearly 20% of the market, Services will post the fastest growth at 7.9% on a compound annual basis. Hardware and Software hold 13% and 9% of the market, respectively. Software, Communications, and Hardware will grow 7.7%, 7.4%, and 6.6% over the next four years on a compound annual basis. The lower growth for hardware is largely attributable to declining average system prices.

As captured in Figure 5, the consumer ICT market continues to grow rapidly. In 2004, consumer spending accounted for 28.8% of the ICT market. Fueled by demand for mobile devices (smartphones, netbooks, tablets) that portion will rise to almost one-third of the market by 2013. The telecommunications (telecom) sector will experience the fastest growth rate over the forecast period (12.5%), mainly due to ICT investment needed to meet demand for mobile voice/data services. Most of that expansion will occur through 2011, moderating substantially to 5.9% by the end of the forecast period.

Figure 6 shows that the total value of commerce for all goods and services in the global economy peaked at \$US 103 trillion in 2008 and will surge to \$US 124 trillion in 2013. Total business-to-consumer commerce will average 34% of the total over the forecast period, while business-to-business commerce will account for the remaining 66%. This helps explain the business market's large share of total ICT spending. Businesses must continually leverage ICT equipment, software, and services to contain costs, boost labor productivity and enhance their competitiveness in increasingly global markets.

Figure 7
ICT Spending by Industry Segment in 2009
(US Billions)

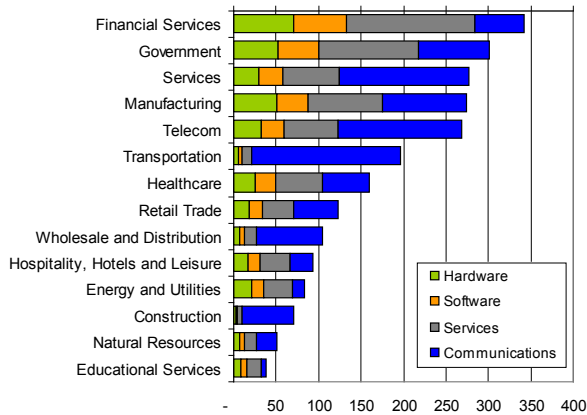


Figure 8
ICT Spending by Industry Segment in 2009
(% Distribution)

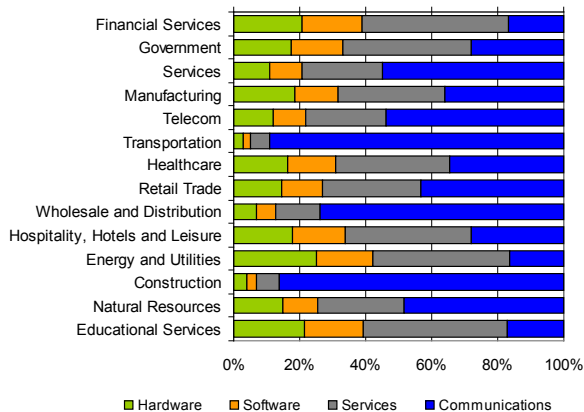
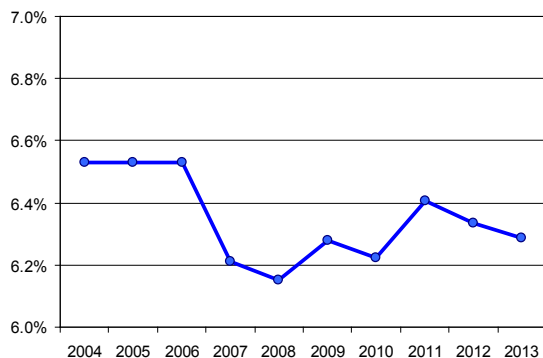


Figure 9
ICT Spending as a Percent of World GDP
(Percent)



Figures 7 and 8 show two different perspectives of ICT spending by industry sector. Figure 7 breaks out the 2009 ICT spending levels by technology across industry sectors. The Telecom sector, which contracted more acutely than other sectors in 2009, ranked fifth for ICT spending. However, the release of pent-up demand for telecom products and services will, in turn, stimulate ICT spending in the sector, propelling it to become the second largest sector (behind Financial Services) throughout the forecast period. As fiscal and monetary stimulus programs wind down, Government ICT Spending will initially expand at a lesser pace than the overall market followed by a slight contraction in 2013.

Figure 8 captures the distribution of spending for the four broad technology groups (hardware, software, services, and communications) across industry sectors. This provides some insight into how ICT spending aligns with the business models employed in various industries. For example, the dependence of the Telecom sector on the effective utilization and deployment of communications technologies is shown by the high percentage of ICT spend on these technologies. The recent consolidation within the Financial Services segment, on the other hand, requires the integration of disparate systems that process financial transactions at high levels of efficiency, explaining ICT spending emphasizing services.

As a percent of total GDP, ICT spending remained relatively stable from 2004 to 2006. By the fourth quarter of 2007 fears of the looming financial crisis began to negatively affect capital investment decisions and ICT spending as a percent of GDP began to decline. This ratio will bounce back to 6.4% in 2011 before trending towards 6.2% beyond the forecast period. The extended technology refresh cycles that were ushered in by the recession will likely remain throughout the forecast period.

Figure 10
ICT Spending Growth: History and Forecast
(Percent Growth)

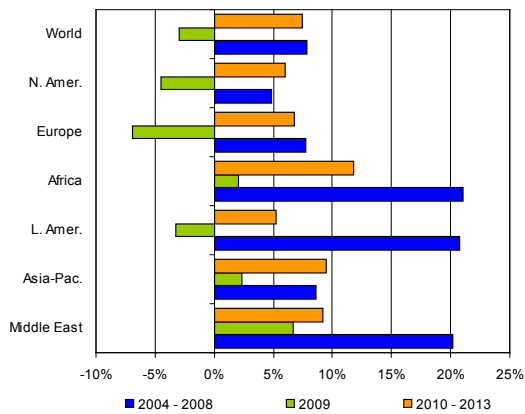


Figure 11
ICT Spending by Market Segment
(\$US Billions, Percent Growth)

Market Segment	2009	% Growth		
		2004-08	2008-09	2009-13
Consumer	1,132,967	9.6%	1.6%	7.7%
Financial Services	342,228	6.6%	-3.1%	7.3%
Government	300,909	6.6%	-2.1%	4.0%
Services	276,976	6.7%	-3.4%	6.9%
Manufacturing	274,510	8.3%	-4.0%	7.0%
Telecom	268,460	5.7%	-21.8%	12.5%
Transportation	196,057	6.3%	2.9%	5.7%
Healthcare	159,658	7.1%	-1.3%	7.2%
Retail Trade	123,930	6.3%	-3.4%	6.3%
Wholesale & Distribution	106,956	7.6%	-1.4%	6.4%
Hosp., Hotels & Leisure	93,327	7.8%	-2.8%	7.4%
Energy and Utilities	82,391	8.7%	-3.8%	7.4%
Construction	70,588	9.8%	-2.0%	8.3%
Natural Resources	50,929	11.8%	-2.3%	7.8%
Educational Services	38,432	7.1%	-2.3%	7.2%
Total	3,518,316	7.8%	-3.0%	7.4%

Figure 12
Output/Total Spending by Market Segment
(Nominal \$US Billions, Percent Growth)

Market Segment	2009 ICT Spending (US\$M)	2009 Output (US\$T)	ICT as % of Output
Telecom	268,460	2,339	11.5%
Financial Services	342,228	5,199	6.6%
Transportation	196,057	3,843	5.1%
Healthcare	159,658	3,908	4.1%
Consumer	1,132,967	32,916	3.4%
Government	300,909	7,874	3.8%
Hosp., Hotels & Leisure	93,327	2,939	3.2%
Retail Trade	123,930	3,681	3.4%
Wholesale & Distribution	106,956	4,331	2.5%
Educational Services	38,432	2,943	1.3%
Energy and Utilities	82,391	7,055	1.2%
Services	276,976	17,821	1.6%
Natural Resources	50,929	3,366	1.5%
Manufacturing	274,510	23,890	1.1%
Construction	70,588	5,575	1.3%
Overall	3,518,316	127,678	2.8%

As a percent of total GDP, ICT spending remained relatively stable from 2004 to 2006. By the fourth quarter of 2007 fears of the looming financial crisis began to negatively affect capital investment decisions and ICT spending as a percent of GDP began to decline. This ratio will bounce back to 6.4% in 2011 before trending towards 6.2% beyond the forecast period. The extended technology refresh cycles that were ushered in by the recession will likely remain throughout the forecast period.

Referring to Figure 11, contrasting the pre- and post-recession growth rates for ICT spending by industry sector provides insights into the nature of the recovery of ICT spending. As mentioned earlier, the telecom sector will experience significantly higher post-recession growth rates. Consumer spending will cool to a pace slightly faster than the overall market. Indeed, the telecom and consumer markets are two sides of a coin. Consumers are buying low-cost mobile devices and voice/data services while the telecom companies invest in the infrastructure required to service the consumer demand. Most other industry sectors will experience flat to declining comparative growth rates.

ICT spending as a percent of industry output underscores the relative importance of technology within a given sector. Figure 12 ranks the major industry sectors by ICT intensity, the ratio of a segment's Share of ICT Spend to its Share of Output. As this figure bears out, sectors that create value through data, knowledge and services (e.g., Telecom and Financial Services) tend to have higher ICT Intensity. The least ICT-intensive segments Manufacturing and Construction. Finally, Figure 13 presents the macro-economic factors driving ICT spending by world region.

Figure 13 below lists underlying macroeconomic factors that affect ICT demand.**Figure 13****Macroeconomic Factors that Underlie ICT Demand by World Region**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	% Growth 2004-08	% Growth 2008-09	% Growth 2009-13
Gross Domestic Product (Billions of U.S. Dollars and Annual Growth Rates)													
Americas	14,933.2	6,291.0	17,691.8	19,038.3	20,029.8	19,416.6	20,507.5	21,292.9	22,368.2	23,465.9	7.6%	-3.1%	4.8%
Y-Y Growth	8.2%	9.1%	8.6%	7.6%	5.2%	-3.1%	5.6%	3.8%	5.1%	4.9%			
Europe	14,732.3	15,629.8	16,899.8	19,663.8	21,607.4	19,188.0	20,689.7	21,525.6	23,568.1	24,974.9	10.0%	-11.2%	6.8%
Y-Y Growth	6.1%	6.1%	8.1%	16.4%	9.9%	-11.2%	7.8%	4.0%	9.5%	6.0%			
Asia-Pacific	10,151.8	10,878.0	11,560.4	13,065.4	14,801.1	15,201.7	17,067.0	18,522.1	20,528.0	22,697.7	9.9%	2.7%	10.5%
Y-Y Growth	2.4%	7.2%	6.3%	13.0%	13.3%	2.7%	12.3%	8.5%	10.8%	10.6%			
Middle East	795.2	963.5	1,124.2	1,304.7	1,618.7	1,404.4	1,553.3	1,766.3	1,965.9	2,115.2	19.4%	-13.2%	10.8%
Y-Y Growth	5.9%	21.2%	16.7%	16.1%	24.1%	-13.2%	10.6%	13.7%	11.3%	7.6%			
Africa	518.9	596.6	656.7	754.3	882.1	819.2	946.2	1,020.6	1,116.4	1,223.7	14.2%	-7.1%	10.6%
Y-Y Growth	21.2%	15.0%	10.1%	14.8%	17.0%	-7.1%	15.5%	7.9%	9.4%	9.6%			
Global Total	41,131.3	44,358.9	47,932.9	53,826.5	58,939.1	56,029.8	60,763.7	64,127.4	69,546.6	74,477.2	9.4%	-4.9%	7.4%
Y-Y Growth	2.3%	7.8%	8.1%	12.3%	9.5%	-4.9%	8.4%	5.5%	8.5%	7.1%			
Personal Consumption Spending (Billions of U.S. Dollars and Annual Growth Rates)													
Americas	10,043.4	10,879.6	11,730.9	12,648.3	13,377.2	13,016.1	13,521.8	14,102.8	14,712.9	15,291.0	7.4%	-2.7%	4.1%
Y-Y Growth	7.5%	8.3%	7.8%	7.8%	5.8%	-2.7%	3.9%	4.3%	4.3%	3.9%			
Europe	8,709.7	9,292.4	9,961.1	11,499.2	12,685.0	11,316.8	11,818.9	12,747.7	13,454.3	14,251.6	9.9%	-10.8%	5.9%
Y-Y Growth	15.7%	6.7%	7.2%	15.4%	10.3%	-10.8%	4.4%	7.9%	5.5%	5.9%			
Asia-Pacific	5,509.5	5,831.8	6,099.1	6,714.9	7,668.9	7,737.0	8,391.0	9,130.6	10,166.4	11,185.2	8.6%	0.9%	9.7%
Y-Y Growth	10.1%	5.8%	4.6%	10.1%	14.2%	0.9%	8.5%	8.8%	11.3%	10.0%			
Middle East	303.3	335.9	369.6	451.2	512.2	483.2	510.7	574.0	630.0	690.6	14.0%	-5.7%	9.3%
Y-Y Growth	21.2%	10.7%	10.1%	22.1%	13.5%	-5.7%	5.7%	12.4%	9.8%	9.6%			
Africa	234.2	251.1	289.2	345.7	394.3	363.2	390.6	435.4	470.0	509.4	13.9%	-7.9%	8.8%
Y-Y Growth	11.1%	7.2%	15.2%	19.5%	14.1%	-7.9%	7.6%	11.5%	7.9%	8.4%			
Global Total	24,800.1	26,590.7	28,450.0	31,659.3	34,637.6	32,916.2	34,633.0	36,990.5	39,433.7	41,927.7	8.7%	-5.0%	6.2%
Y-Y Growth	11.0%	7.2%	7.0%	11.3%	9.4%	-5.0%	5.2%	6.8%	6.6%	6.3%			
Investment Spending (Billions of U.S. Dollars and Annual Growth Rates)													
Americas	2,782.7	3,154.0	3,457.1	3,619.2	3,716.4	3,130.6	3,245.4	3,612.6	4,019.1	4,358.0	7.5%	-15.8%	8.6%
Y-Y Growth	12.0%	13.3%	9.6%	4.7%	2.7%	-15.8%	3.7%	11.3%	11.3%	8.4%			
Europe	2,952.5	3,210.5	3,605.8	4,317.7	4,744.3	3,855.0	3,981.5	4,332.8	4,620.4	4,944.9	12.6%	-18.7%	6.4%
Y-Y Growth	17.0%	8.7%	12.3%	19.7%	9.9%	-18.7%	3.3%	8.8%	6.6%	7.0%			
Asia-Pacific	2,747.9	3,071.8	3,361.0	3,852.6	4,454.8	4,439.3	5,052.3	5,650.6	6,452.7	7,292.7	12.8%	-0.3%	13.2%
Y-Y Growth	15.9%	11.8%	9.4%	14.6%	15.6%	-0.3%	13.8%	11.8%	14.2%	13.0%			
Middle East	136.0	155.6	183.3	235.9	288.3	273.2	295.5	336.8	373.1	412.1	20.7%	-5.2%	10.8%
Y-Y Growth	20.3%	14.4%	17.8%	28.7%	22.2%	-5.2%	8.2%	14.0%	10.8%	10.4%			
Africa	58.5	67.5	78.7	100.8	123.2	117.8	129.4	147.3	163.5	181.6	20.4%	-4.4%	11.4%
Y-Y Growth	30.1%	15.4%	16.6%	28.0%	22.2%	-4.4%	9.9%	13.9%	11.0%	11.1%			
Global Total	8,677.6	9,659.4	10,685.9	12,126.3	13,326.9	11,815.9	12,704.1	14,080.2	15,628.8	17,189.3	11.3%	-11.3%	9.8%
Y-Y Growth	15.1%	11.3%	10.6%	13.5%	9.9%	-11.3%	7.5%	10.8%	11.0%	10.0%			
Government Spending (Billions of U.S. Dollars and Annual Growth Rates)													
Americas	2,325.3	2,538.0	2,759.5	3,000.7	3,284.2	3,239.4	3,345.2	3,387.7	3,462.1	3,576.1	9.0%	-1.4%	2.5%
Y-Y Growth	7.3%	9.1%	8.7%	8.7%	9.5%	-1.4%	3.3%	1.3%	2.2%	3.3%			
Europe	1,158.0	1,165.7	1,173.7	1,181.9	1,190.1	1,197.6	1,204.9	1,210.5	1,216.5	1,222.3	0.7%	0.6%	0.5%
Y-Y Growth	0.6%	0.7%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%			
Asia-Pacific	1,562.0	1,661.2	1,732.6	1,910.7	2,241.1	2,429.6	2,694.5	2,874.8	3,151.9	3,422.1	9.4%	8.4%	8.9%
Y-Y Growth	10.5%	6.3%	4.3%	10.3%	17.3%	8.4%	10.9%	6.7%	9.6%	8.6%			
Middle East	47.6	49.8	52.7	55.4	57.2	58.7	59.8	62.1	64.0	66.0	4.7%	2.7%	3.0%
Y-Y Growth	2.3%	4.6%	5.8%	5.1%	3.2%	2.7%	2.0%	3.7%	3.1%	3.1%			
Africa	20.9	22.1	22.5	23.5	24.1	24.7	25.5	26.7	27.8	28.8	3.6%	2.3%	4.0%
Y-Y Growth	11.2%	5.5%	1.9%	4.5%	2.6%	2.3%	3.3%	4.7%	4.2%	3.7%			
Global Total	5,113.8	5,436.8	5,740.9	6,172.1	6,796.8	6,950.0	7,329.9	7,561.8	7,922.2	8,315.3	7.4%	2.3%	4.6%
Y-Y Growth	6.6%	6.3%	5.6%	7.5%	10.1%	2.3%	5.5%	3.2%	4.8%	5.0%			
Population (Millions of Persons and Annual Growth Rates)													
Americas	804.6	814.0	823.7	833.7	843.5	853.6	863.7	873.7	883.7	893.7	1.2%	1.2%	1.2%
Y-Y Growth	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%			
Europe	753.4	756.1	758.1	760.3	762.8	764.1	765.3	766.4	767.4	768.1	0.3%	0.2%	0.1%
Y-Y Growth	0.3%	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.1%	0.1%	0.1%			
Asia-Pacific	3,451.1	3,489.6	3,527.3	3,564.6	3,601.5	3,639.6	3,677.7	3,715.7	3,753.4	3,790.9	1.1%	1.1%	1.0%
Y-Y Growth	1.1%	1.1%	1.1%	1.1%	1.0%	1.1%	1.0%	1.0%	1.0%	1.0%			
Middle East	187.0	190.3	193.6	197.2	200.8	204.1	207.4	210.7	213.9	217.2	1.8%	1.7%	1.6%
Y-Y Growth	1.7%	1.8%	1.8%	1.8%	1.8%	1.7%	1.6%	1.6%	1.5%	1.5%			
Africa	321.2	327.3	333.3	339.4	345.5	351.7	357.6	363.5	369.3	375.2	1.8%	1.8%	1.6%
Y-Y Growth	1.8%	1.8%	1.8%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.6%			
Global Total	5,517.3	5,577.3	5,636.0	5,695.1	5,754.1	5,813.1	5,871.7	5,930.0	5,987.7	6,045.1	1.1%	1.0%	1.0%
Y-Y Growth	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%			
Employment (Millions of Workers and Annual Growth Rates)													
Americas	343.0	348.6	356.5	362.6	366.6	361.9	363.8	370.3	377.5	383.9	1.7%	-1.3%	1.5%
Y-Y Growth	1.2%	1.6%	2.3%	1.7%	1.1%	-1.3%	0.5%	1.8%	1.9%	1.7%			
Europe	320.0	323.4	327.2	331.8	333.4	328.7	326.4	328.1	330.7	333.1	1.0%	-1.4%	0.3%
Y-Y Growth	1.0%	1.1%	1.2%	1.4%	0.5%	-1.4%	-0.7%	0.5%	0.8%	0.7%			
Asia-Pacific	1,555.4	1,576.9	1,604.0	1,631.3	1,653.3	1,668.9	1,694.8	1,723.0	1,749.4	1,773.5	1.5%	0.9%	1.5%
Y-Y Growth	1.7%	1.4%	1.7%	1.7%	1.4%	0.9%	1.6%	1.7%	1.5%	1.4%			
Middle East	54.3	56.4	58.5	60.9	62.3	62.8	63.6	64.8	66.1	67.3	3.5%	0.8%	1.7%
Y-Y Growth	2.5%	3.8%	3.7%	4.1%	2.4%	0.8%	1.4%	1.9%	2.0%	1.7%			
Africa	45.1	46.8	48.5	49.0	50.9	51.6	52.1	53.1	54.3	55.4	3.1%	1.4%	1.8%
Y-Y Growth	3.9%	3.7%	3.6%	1.1%	3.8%	1.4%	0.8%	2.1%	2.1%	2.1%			
Global Total	2,317.8	2,352.0	2,394.6	2,435.5	2,466.5	2,473.9	2,500.7	2,539.4	2,577.9	2,613.2	1.6%	0.3%	1.4%
Y-Y Growth	1.6%	1.5%	1.8%	1.7%	1.3%	0.3%	1.1%	1.5%	1.5%	1.4%			

Complete List of Countries

North America

Canada
Mexico
United States

Latin/Central America

Argentina
Bolivia
Brazil
Chile
Colombia
Costa Rica
Ecuador
Honduras
Jamaica
Panama
Peru
Uruguay
Venezuela

Europe (Non-EU/EFTA)

Russia
Turkey
Ukraine

Europe (EU/EFTA)

Austria
Belgium
Bulgaria

Czech Republic

Denmark
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Netherlands
Norway
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom

Middle East

Egypt
Iran
Israel
Jordan
Kuwait
Saudi Arabia
United Arab Emirate

Africa

Algeria
Cameroon
Kenya
Morocco
Nigeria
Senegal
South Africa
Tunisia
Zimbabwe

Asia/Pacific

Australia
Bangladesh
China
Chinese Taipei
Hong Kong
India
Indonesia
Japan
Malaysia
New Zealand
Pakistan
Philippines
Republic of Korea
Singapore
Sri Lanka
Thailand
Vietnam

Product Groups Definitions

Computer Hardware

Computer hardware spending includes the total value of purchased or leased computers, storage devices, memory upgrades, printers, monitors, scanners, input-output devices, terminals, other peripherals, and bundled operating systems. In this report, the value of computer hardware spending is expressed in millions of current U.S. dollars.

Computer Software

Computer software spending includes the total value of purchased or leased packaged software such as operating systems, database systems, programming tools, utilities, and applications. It excludes expenditures for internal software development and outsourced custom software development. In this report, the value of computer software spending is expressed in millions of current U.S. dollars.

Computer Services

Computer services spending includes the total value of outsourced services – whether domestic or offshore – such as IT consulting, computer systems integration, outsourced custom software development, outsourced world wide web page design, network systems, network systems integration, office automation, facilities management, equipment maintenance, web hosting, computer disaster recovery, and data processing services. In this report, the value of computer services spending is expressed in millions of current U.S. dollars.

Communications

Communications spending includes the total value of voice and data communications services and equipment. Communications services include local and long distance wire-line telecommunications, wireless telecommunications, paging, satellite telecommunications, internet access, private line services, and other data communications services. Communications equipment includes wire-line and wireless telephone handsets, legacy and IP PBXs, key systems, wired and wireless LAN equipment, WAN equipment, central office equipment, modems, multiplexers, and telephone answering machines and systems. In this report, the value of communications spending is expressed in millions of current U.S. dollars.

Gross Domestic Product

Gross Domestic Product is the total market value of all final goods and services produced in a country in a given year. It is equal to the sum of total consumer, investment and government spending, plus the value of exports, minus the value of imports. In this report, the value of Gross Domestic Product is expressed in millions of current U.S. dollars.

Employment

Employment is the number of people employed in the country. In this report, employment is expressed in thousands of workers.

Population

Population is the number of people living in the country. In this report, population is expressed in thousands of persons.

Data and Forecast Revisions

Data Revisions

The data in *Digital Planet 2010* have been revised – in some cases significantly – relative to previous editions. IHS Global Insight has incorporated new data sources, new segment definitions, and new product/service definitions. The result is a more detailed and more accurate view of ICT spending around the world.

Forecast Revisions

The forecasts in *Digital Planet 2010* have been revised relative to previous editions. IHS Global Insight has incorporated its latest macroeconomic forecasts, developed new modeling methods, and implemented a new segmentation scheme to provide more accurate and detailed forecasts of ICT spending around the world.

Market Segments Definitions

Construction

The Construction sector includes all organizations involved in constructing residential and non-residential buildings, heavy and civil engineering construction, and construction trades.

Educational Services

The Educational Services sector includes all organizations that provide public and private educational services.

Energy and Utilities

The Energy and Utilities sector includes all organizations that provide utility services such as electric power, natural gas, steam supply, water supply, and sewage removal. In addition, this sector includes all organizations that engage in energy mining and extraction, petroleum refining, as well as production of petroleum, tar, and coal products.

Financial Services

The Financial Services sector includes all financial organizations such as banks, savings and loans, security and commodity brokers, as well as insurance carriers and agents. This sector also includes organizations that provide leasing or renting or machinery and equipment.

Government

The Government sector includes all central and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions. These agencies also set policy, create laws, adjudicate civil and criminal legal cases, provide for public safety and for national defense.

Healthcare

The Healthcare sector includes organizations that provide health services, such as medical, dental, and veterinarian offices.

Hospitality and Leisure

The Hospitality and Leisure sector includes restaurants and lodging places, cultural services, as well as recreation and entertainment services.

Manufacturing

The Manufacturing sector comprises all organizations engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. These organizations may either sell their products directly to end-users or indirectly to end-users through wholesale and/or retail trade organizations.

Natural Resources

The Natural Resources sector includes all organizations involved in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats. It includes all organizations involved in agriculture production and farm or ranch operation as well as all support activities such as soil preparation, planting, harvesting, and management. In addition, this sector includes all organizations that extract naturally occurring mineral solids, such as ores, and other minerals and liquids (note: energy mining and extraction is classified under the Energy and Utilities sector.) It includes all organizations involved in mine operation as well as mining support activities.

Professional Services

The Professional Services sector includes real estate agents and brokers, and all business services organizations such as credit reporting, mailing, reproduction, building maintenance, personnel supply services, computer/data processing services, and advertising. This sector also includes personal and household services as well as welfare and institutional membership services.

Market Segments Definitions

Retail Trade

The Retail Trade Sector includes all organizations that retail merchandise - generally without further transformation or fabrication. The merchandise sold by the retail organizations includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing.

Telecommunications

The Telecommunications sector includes all organizations involved in voice and data communications services, as well as radio and TV broadcast services.

Transportation

The Transportation sector includes all organizations involved in transporting passengers and cargo, warehousing goods, scenic and sightseeing transportation, support activities related to modes of transportation.

Wholesale Trade

The Wholesale Trade sector includes all organizations that wholesale merchandise - generally without further transformation or fabrication. The merchandise sold by the wholesale organizations includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing.

Consumer

The Consumer sector includes all households and individuals that buy products and services for their own consumption.

e-Inclusion in an i-Society

The Impact of Public Policy on the Fulfillment of the Digital Age

[illegible]

GUADALAJARA, JALISCO, **Mexico**.

NOVEMBER 6 - 8

The Digital Planet • Role of Public Policy in ICT Development • Key Public policies that enable the development of ICT in the developed and developing countries. What IT for development and inclusion? From content to infrastructure Proven practices / Public and Private Partnerships • The role of ICT on the Regional Development • ICT Policy and the environment • e-Education / Enabling policies • Public Policies resulting in improved health care services Key e-Government policies • Government policies and the new media and e-Society • Welcome to the future “Youth perspectives” • ICT’s role in expediting the global economic recovery • Public policies and cyber security M-development: does mobile makes a difference in development? • International efforts in building confidence and security in the use of ICT’s.

www.gpps2011.org



We can have our pick. Why should we choose MSC Malaysia solutions?

Because MSC Malaysia Status Companies are more than just world-class solutions providers. We're target-specific and non-technology focused, so we can match each ICT need with its own unique solution. We are attentive to market demands. We produce creative and strategic solutions that cater to all ICT sectors and all ICT clusters. Today, MSC Malaysia solutions empower businesses with the edge to grow.

• IT solutions • Outsourcing • Entertainment and Media

We look forward to partnering you too.



WITSA Mission and Vision

WITSA Vision:

WITSA is the leading recognized voice of the global ICT industry which is the key driver of global economic growth.

Mission:

To promote and facilitate the global growth of the information and communications technology and services industry through: public policy development and advocacy, the promotion of global trade and investment, global forums, and the sharing of knowledge and experience.

Digital Planet 2010 Sponsors:

**WITSA wishes to thank the following
WITSA Global Partners for their support.**

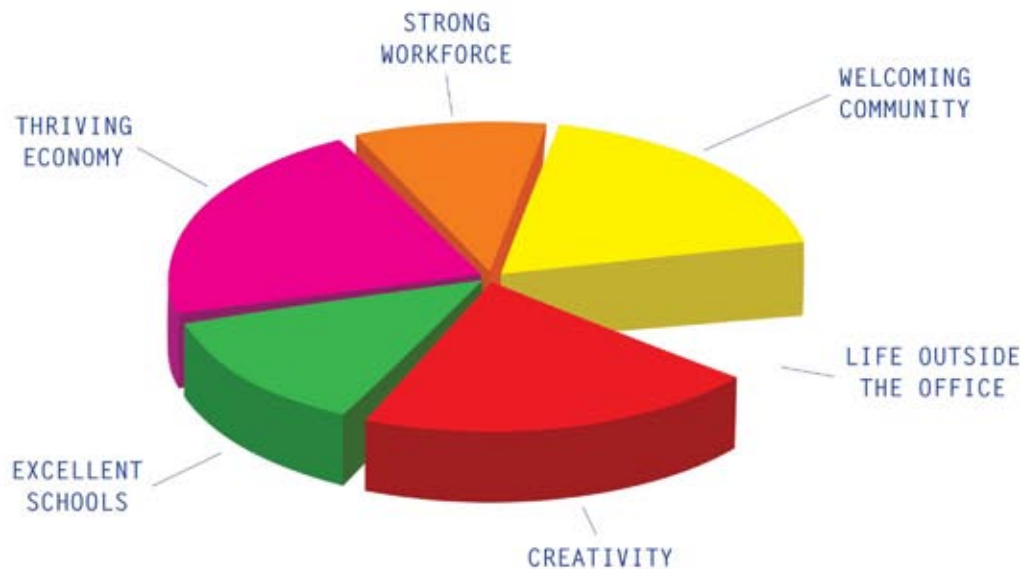
The Fairfax County Economic Development Authority (FCEDA)
(<http://www.fairfaxcountyeda.org/>)

Institute for Information Industry (III)
(<http://www.iii.org/>)

The Multimedia Development Corporation Sdn. Bhd
(<http://www.msc.com.my/>)

MexicoIT
(<http://www.mexico-it.net/>)

WHAT MAKES FAIRFAX COUNTY THE IDEAL BUSINESS LOCATION



No chart or graph can adequately convey what makes this the ideal location for your business. Businesses and individuals thrive here not because of numbers and percentages, but because of the robust, welcoming business environment. Its creative atmosphere fosters motivating challenges and inspired solutions. The strong, stable and diverse workforce here enjoys an array of housing choices, many cultural and recreational options and some of the best schools in the country. To see how your business can benefit from a move to Fairfax County, visit www.powerofideas.org.

Fairfax County
Virginia

The power of ideas

RESEARCH CONDUCTED BY



IHS Global Insight, Inc.
24 Hartwell Avenue, Lexington, MA 02421 USA
Phone: 781-301-9100
www.globalinsight.com

PUBLISHED BY



The World Information Technology and Services Alliance
8300 Boone Boulevard, Suite 450, Vienna, VA 22209 USA
Phone: +1 571 633 - 0620
www.witsa.org