Best Export Markets
For
U.S. Computer Software, 2007-2009

Best Export Markets for U.S. Computer Software was compiled by Ajchara Kaewthep, under the supervision of Maurice Kogon, Director of the El Camino College Center for International Trade Development (CITD) in Hawthorne, California. The report is based largely on 2007-2009 Country Commercial Guides (CCGs) prepared by United States Commercial Service (USCS) posts abroad. All CCGs include a standard chapter "Leading Sectors for U.S. Exports." This report drew from those CCGs which specifically recommended **Computer Software** as a best prospect for U.S. exports.

The entire report is also available as a Word document, in print or electronically, for $25.00. To order, contact the El Camino College CITD at: 310-973-3173 or **mkogon@elcamino.edu**.

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I. Export Market Brief

Note: For purposes of this report, Computer Software falls within HS code 852340 (Optical Media for the recording of sound/of other phenomena). U.S. exports of Computer Software are broken down more specifically below to Schedule B Code 8523402010 (Prepackaged software for automatic data processing machines, of a kind sold at retail). The data on leading world importers and exporters are only available at the broader HS 852340 level.

This Market Brief provides an overview of the world market for prepackaged software for automatic data processing machines, of a kind sold at retail HS 8523402010 (also NAICS 511210), based on an analysis of the latest trade statistics and market research.

Export growth: U.S. exports of products within Schedule B 8523402010 fell from $996 million in 2005 to $848 million in 2008, a decrease of 14.85% over the four-year period.

Leading Export Markets: Canada is by far the leading market for U.S. exports of products in the Schedule B 8523402010 category ($413 million in 2008, or 48.71% of total). Other top markets (all valued above $50 million) were: Mexico (7.53% of total) and Brazil (7.28% of total). Other significant markets (above $10 million) were: Japan (3.06%), China (2.84 %), United Kingdom (2.52%), Germany (2.15%), India (1.95%), Korea (1.86%), France (1.82%), Netherlands (1.74%) and Taiwan (1.22%)

Fastest Growing Export Markets: The leading markets with both high and sustained growth rates for U.S. exports of Schedule B 8523402010 products over the latest four years (2005-2008) and continuing in 2007-2008 were: Mexico, Brazil and Chile. Other significant growth markets over the 2005-2008 period were Spain, Bermuda, Saudi Arabia and Peru.

Leading Importing Countries: The top foreign importers of Optical media for the recording of sound/of other phenomena (HS 852340) in 2007 were Germany ($2.9 billion, or 11.23% of total), United Kingdom (9.33%), USA (8.22%), France (6.43%), and China (6.03%). Other top importers (all above $1.0 billion) were Canada (5.39%), Netherlands (4.26%) and Italy (4.17%). Other significant importers (all above $500 million) were Japan (3.8%), Austria (3.46%), Belgium (3.16%), Switzerland (3.08%), Sweden (2.57%), Australia (2.53%). Korea (2.13%) and Hong Kong (1.95%).

Leading Exporting Countries & U.S. Share: Total world exports of Optical media for the recording of sound/of other phenomena (HS 852340) by all countries reached $23.4 billion in 2007. The U.S. had a 14.02% share of the total world market in 2007, topped only by Germany (22.67%). Other world suppliers with significant market shares were Netherlands (7.72%), United Kingdom (7.05%), Ireland (6.60%) and Austria (6.46%).

Best Market Prospects: The markets listed below appear to be particularly promising for U.S. exports of **Computer software** over the next two years:

Australia	Finland	Japan	Russia
Austria	France	Lithuania	Singapore
Bangladesh	Germany	Netherlands	Slovenia
Brazil	Greece	Niger	South Korea
Canada	Hungary	Nigeria	Spain
Chile	Iceland	Norway	Sweden
Denmark	Ireland	Poland	Taiwan
Fiji	Italy	Romania	Vietnam

II. Target Market Matrix – Computer Software
Selection Criteria

This matrix assesses the U.S. industry's market potential in each listed country, based on how well the country performed against the 8 "predictor" criteria represented in Columns 1-8 below. A **double X** in the Column cell indicates the country met the criterion very well; a **single X** indicates reasonably good performance; a **blank** indicates the country was lacking in that criterion. The countries with the greatest number of XX's and X's across the most number of criteria are presumed to offer greater export potential for the industry, based on this methodology.

	1	2	3	4	5	6	7	8
Canada	xx		x	xx	xx	xx	xx	xx
Brazil	xx	xx	x		x	xx	x	xx
India	xx	xx	x					
Mexico	xx	x						
Korea	xx			x			x	xx
Germany	x			xx	x	xx	xx	xx
Japan	x			x	x	x	xx	xx
China	x			xx				
United Kingdom	x			xx				
France	x	x		xx	xx	xx	xx	xx
Netherlands		xx	x	xx	x	xx	xx	xx
Hong Kong				x				
Taiwan					xx	xx	xx	xx
Colombia		xx	xx					
Australia				x	x	x	xx	xx
Italy				xx	x	xx	xx	xx
Chile		xx	xx		x	x	xx	xx
Singapore					xx	xx	xx	xx
Spain		x			x	x	x	xx
Poland		xx	xx		x	x	xx	xx
Argentina		x						
Sweden			x	x	x	xx	xx	xx
Switzerland		x		x				
Denmark					x	xx	xx	xx
Venezuela								
South Africa								
Malaysia								
Thailand								
Belgium				x				
Turkey		xx	x					

Key: Columns/Criteria

1. Largest export markets, latest year
2. Fastest growing export markets, past 3 yrs
3. Fastest growing export markets, latest year
4. Largest importing countries, latest year
5. Limited competition from local producers
6. High receptivity to products from your country
7. No significant market barriers
8. Recommended as a "best" export market

III. Market Potential Indicators

A. Top 30 U.S. Export Markets for Computer Software, by Country. These tables show the leading and fastest growing U.S. export markets for prepackaged software for automatic data processing machines, of a kind sold at retail (Schedule B 8523402010 (also NAICS 511210) over the past four years (2005-2008). Source: USITC Trade DataWeb.

B. Top 30 World Importers of Computer Software, by Country. This table shows the leading and fastest growing world importers of Optical Media for the recording of sound/of other phenomena (HS 852340) in 2007. Source: UN Comtrade.

C. Top 30 World Exporters and U.S. Share of Computer Software, by Country. This table shows the U.S. and competitor-country shares of total world exports of Optical Media for the recording of sound/of other phenomena (HS 852340) in 2007. Source: UN Comtrade.

D. Market Sizes & U.S. Share: Computer Software, by Country. This table shows each "best prospect" country's total market, total imports, imports from the U.S., and the U.S. market share for products in this sector. Source: U.S. Commercial Service.

III. Market Potential Indicators
III.A. Top 30 U.S. Export Markets 2004–2007

HS 8523402010: Prepackaged Software for Automatic Data Processing Machines, of a Kind Sold at Retail

Country	2005	2006	2007	2008	% Change 2005 - 2008	% Change 2007 - 2008	% Share 2008
	In 1,000 Dollars						
Canada	320,154	373,897	428,420	413,180	29.06%	-3.56%	48.71%
Mexico	60,981	58,707	49,052	63,831	4.67%	30.13%	7.53%
Brazil	34,409	41,177	60,353	61,706	79.33%	2.24%	7.28%
Japan	56,017	52,142	29,595	25,980	-53.62%	-12.21%	3.06%
China	39,902	61,880	29,147	24,123	-39.54%	-17.24%	2.84%
United Kingdom	47,683	44,809	24,777	21,379	-55.16%	-13.71%	2.52%
Germany	40,612	35,399	29,711	18,270	-55.01%	-38.51%	2.15%
India	54,950	39,100	54,419	16,505	-69.96%	-69.67%	1.95%
Korea	52,622	47,417	32,276	15,775	-70.02%	-51.12%	1.86%
France	34,533	34,386	21,954	15,454	-55.25%	-29.61%	1.82%
Netherlands	14,638	15,193	16,806	14,750	0.77%	-12.23%	1.74%
Taiwan	15,669	16,997	13,843	10,332	-34.06%	-25.36%	1.22%
Australia	40,847	24,846	10,811	9,981	-75.56%	-7.68%	1.18%
Chile	2,449	3,043	8,057	9,050	269.54%	12.32%	1.07%
Italy	14,728	15,978	9,759	8,073	-45.19%	-17.28%	0.95%
Spain	5,676	7,044	6,485	6,630	16.81%	2.24%	0.78%
Hong Kong	17,518	34,908	14,021	6,520	-62.78%	-53.50%	0.77%
Colombia	5,672	6,153	12,544	6,381	12.50%	-49.13%	0.75%
Bermuda	391	359	1,675	5,676	1351.66%	238.87%	0.67%
Saudi Arabia	967	1,109	1,215	5,435	462.05%	347.33%	0.64%
Argentina	5,890	8,157	5,645	5,338	-9.37%	-5.44%	0.63%
Malaysia	12,574	5,639	2,986	4,613	-63.31%	54.49%	0.54%
Singapore	18,920	18,093	7,400	4,446	-76.50%	-39.92%	0.52%
Switzerland	5,846	5,954	4,583	3,937	-32.65%	-14.10%	0.46%
Israel	4,662	8,233	2,609	3,761	-19.33%	44.15%	0.44%
Peru	1,072	966	2,322	3,713	246.36%	59.91%	0.44%
Poland	2,391	2,303	5,837	3,412	42.70%	-41.55%	0.40%
Belgium	5,773	3,415	2,878	3,226	-44.12%	12.09%	0.38%
Sweden	5,401	4,779	5,088	3,145	-41.77%	-38.19%	0.37%
Turkey	3,778	2,201	2,723	3,139	-16.91%	15.28%	0.37%
Subtotal :	926,724	974,285	896,991	797,760	-13.92%	-11.06%	94.06%
All Other:	69,329	86,222	58,635	50,401	-27.30%	-14.04%	5.94%
Total	**996,053**	**1,060,507**	**955,626**	**848,161**	**-14.85%**	**-11.25%**	**100.00%**

Source: USITC Trade DataWeb.

III. Market Potential Indicators

III .B Top 30 World Importers, 2007

HS 852340: Optical Media For The Recording Of Sound/Of Other Phenomena
NAICS - 511210: Software, Nesoi

Reporter	Trade Value	% Share
Germany	$2,905,111,000.00	11.23%
United Kingdom	$2,413,188,153.00	9.33%
USA	$2,126,277,224.00	8.22%
France	$1,664,111,328.00	6.43%
China	$1,559,226,600.00	6.03%
Canada	$1,393,577,727.00	5.39%
Netherlands	$1,102,010,885.00	4.26%
Italy	$1,078,557,484.00	4.17%
Japan	$983,695,195.00	3.80%
Austria	$894,257,457.00	3.46%
Belgium	$816,810,810.00	3.16%
Switzerland	$796,278,462.00	3.08%
Sweden	$665,723,671.00	2.57%
Australia	$653,342,620.00	2.53%
Rep. of Korea	$550,589,303.00	2.13%
China, Hong Kong SAR	$503,427,559.00	1.95%
Denmark	$498,054,843.00	1.93%
Spain	$497,131,740.00	1.92%
Norway	$492,285,737.00	1.90%
Poland	$325,191,400.00	1.26%
Finland	$298,723,427.00	1.15%
Ireland	$296,128,081.00	1.14%
Czech Rep.	$288,996,230.00	1.12%
Thailand	$288,063,277.00	1.11%
South Africa	$286,623,065.00	1.11%
Portugal	$245,953,182.00	0.95%
Turkey	$234,993,914.00	0.91%
Singapore	$229,735,064.00	0.89%
New Zealand	$172,012,107.00	0.67%
Luxembourg	$164,167,903.00	0.63%
Top 30 Subtotal	**$24,424,245,448.00**	**94.43%**
Others	**$1,440,699,790.00**	**5.57%**
World Total	**$25,864,945,238.00**	**100.00%**

Source: UN Commodity Trade Statistics Database (UN Comtrade).

III. Market Potential Indicators

III .C Top 30 World Exporters & U.S. Market Share, 2007

HS 852340: Optical Media For The Recording Of Sound/Of Other Phenomena
NAIC - 511210: Software, Nesoi

Reporter	Trade Value	% Share
Germany	$5,305,047,000	22.67%
USA	$3,280,392,525	14.02%
Netherlands	$1,806,661,078	7.72%
United Kingdom	$1,649,637,662	7.05%
Ireland	$1,544,927,195	6.60%
Austria	$1,512,945,531	6.46%
Singapore	$997,710,020	4.26%
France	$944,072,912	4.03%
Japan	$819,123,915	3.50%
China	$714,732,066	3.05%
Sweden	$691,939,191	2.96%
China, Hong Kong SAR	$598,264,981	2.56%
Czech Rep.	$481,498,770	2.06%
Belgium	$440,929,525	1.88%
Canada	$378,434,769	1.62%
Denmark	$349,010,557	1.49%
Poland	$342,273,139	1.46%
Luxembourg	$234,080,969	1.00%
Switzerland	$205,871,133	0.88%
Italy	$149,625,076	0.64%
Spain	$143,833,474	0.61%
Australia	$110,996,700	0.47%
Rep. of Korea	$107,102,486	0.46%
Hungary	$86,574,000	0.37%
Russian Federation	$82,632,836	0.35%
Norway	$55,030,886	0.24%
Finland	$53,560,135	0.23%
Slovakia	$40,881,373	0.17%
Argentina	$29,098,122	0.12%
Greece	$29,075,422	0.12%
Top 30 Subtotal	**$23,185,963,448.00**	**99.07%**
Others	**$217,752,727.00**	**0.93%**
World Total	**$23,403,716,175.00**	**100.00%**

Source: UN Commodity Trade Statistics Database (UN Comtrade).

III. Market Potential Indicators
III. D. Market Sizes & U.S. Share, by Country

The Table below provides comparative data on total market, import market, and import from the U.S. for 23 countries considered "best prospects" for U.S. exports of Computer Software. The countries are listed in alphabetic order, not in rank order. The data are based on local sources and reflect best estimates of USCS commercial officers each country. Statistical accuracy and comparability to other sources (e.g., "USDOC Bureau of Census") are affected by a number of factors, including lack of published figures in certain markets, variances in data collection techniques, sources of data, and Computer Software definitions.

Computer Software
(Values in $ Millions)

Country	Total Market			Total Imports			Imports from US			%U.S. Share
	2007	2009	% Change	2007	2009	% Change	2007	2009	% Change	2009
Australia	6,500	7,050	8.46	4,550	4,890	7.47	2,500	2,890	15.60	59.10
Austria	5,834	6,469	10.89	N/A	N/A	N/A	2,702	3,053	12.99	N/A
Brazil***	9,400	12,100	28.72	4,200	5,300	26.19	3,450	3,800	10.14	71.70
Canada*	6,799	7,428	9.25	5,676	6,201	9.25	4,361	4,765	9.26	76.84
Chile***	521	622	19.39	440	536	21.82	275	335	21.82	62.50
France*	45,972	46,918	2.06	12,749	13,010	2.05	6,752	6,890	2.04	52.96
Germany*	26,000	28,300	8.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greece*	2,710	3,200	18.08	1,950	2,300	17.95	1,385	1,480	6.86	64.35
Hungary**	513	664	29.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ireland *	590	650	10.17	295	325	10.17	140	155	10.71	47.69
Italy**	5,077	6,288	23.85	2,488	3,082	23.87	1,995	2,465	23.56	79.98
Japan**	150,774	175,813	16.61	4,500	5,166	14.80	4,050	4,650	14.81	90.01
Lithuania**	2,094	2,247	7.31	1,226	1,662	35.56	80	80	0.00	4.81
Netherlands*	7,245	8,000	10.42	5,075	5,500	8.37	N/A	N/A	N/A	N/A
Niger**	N/A	N/A	N/A	10	15	53.98	N/A	N/A	N/A	N/A
Nigeria *	5,806	9,289	59.99	5,664	8,589	51.64	3,702	6,038	63.10	70.30
Norway***	4,200	5,000	19.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Romania**	146	195	33.56	114	152	33.33	85	119	40.00	78.29
Russia*	9,520	14,000	47.06	1,960	3,560	81.63	110	207	88.18	5.81
Singapore*	3,700	3,900	5.41	7,200	7,190	-0.14	512	613	19.73	8.53
South Korea**	5,992	6,023	0.52	514	577	12.26	N/A	N/A	N/A	N/A
Spain*	3,223	3,902	21.07	1,480	1,929	30.34	429	552	28.67	28.62
Sweden*	2,860	3,097	8.29	2,058	N/A	N/A	1,589	N/A	N/A	N/A
Taiwan*	4,792	5,125	6.95	1,623	1,725	6.28	1,258	1,392	10.65	80.70
Vietnam*	1,740	2,940	68.97	1,412	2,386	68.98	41	70	70.73	2.93

* 2006-2008; ** 2005-2007, *** 2004-2006 Source: U.S. Commercial Service

IV. Best-Prospect Market Assessments

Following are overviews of "best prospect" markets for Computer Software, based on observations of USCS posts reported in annual Country Commercial Guide (CCG) for each country. The countries appear in alphabetical order by the year reported. For more detailed market research on Computer Software in these and other specific markets, see relevant Market Research Reports listed in Chapter V. For general commercial and economic information on individual countries, see the relevant CCGs.

AUSTRALIA (2009)

Overview

The local IT market is mature and sophisticated. End-users, whether corporate, public, or retail, are early adopters of cutting-edge technology products. U.S. companies dominate the local market. In 2007, U.S. software accounted for 44% of software imports. Import growth from the United States will slow to 4% over the next two years as a result of the world economic crisis. Retail sales have slowed considerably over the last few months. At the corporate level, we expect companies to defer purchases of nonessential items until they have an idea of the extent of the downturn. The IT security subsector of the software market has sustained double-digit growth for several years.

Spending on IT security solutions to protect critical infrastructure will not decrease significantly in the short to medium term. Local integrators, resellers, and distributors are experienced in partnering with U.S. software companies.

Best Products/Services

- Software as a Service (SaaS)
- Enterprise-level applications for Small and Medium Enterprises (SMEs)
- Voice messaging (including VoIP applications)
- Security Software
- Workflow Document Management Software
- Asset Management Software
- Software for Corporate Governance Compliance (Basel and ITIL)
- Software for Data Cleansing
- Software as for Quality Tools

Software as a Service (SaaS) offers a new market model for customers who can opt to pay a monthly subscription fee for solutions, avoiding the need for up-front capital expenditure. SaaS makes many enterprise-level applications more affordable for Small and Medium Enterprises (SMEs) and, consequently, SaaS delivery platforms are gaining market share in SMEs. The following table shows the high proportion of SMEs in the local market.

Analysis on the Size of Australian Companies

Number of Employees	Approximate Number of Companies
> 50,000	7
> 20,000	28
> 15,000	40
> 10,000	68
> 5,000	130
< 5,000	25,000

Source: Australian Bureau of Statistics

Other solutions in demand include: voice messaging (including VoIP applications), security, workflow document management, asset management, corporate governance compliance (Basel and ITIL), data cleansing, and quality tools.

Opportunities

In Australia, Federal and state governments purchase over 75% of all software. To sell to government agencies, it is important for U.S. firms to partner with a local firm certified to sell to the government and familiar with Australia's federal and state tendering processes. Local ISPs now offer viable, robust VoIP solutions to consumers. With more than 5.4 million broadband subscribers, U.S. developers of VoIP solutions will find opportunities in the local market.

IT security solutions are also in demand. Governments and companies are allocating more of their IT budgets to ensure their digital assets are secure due to the dynamic nature of attacks to networks, email systems, and websites. Data sensitive government agencies, like the Department of Defense and Centrelink (welfare agency), mandate high levels of digital security.

Resources

Publications

- Australian Reseller News http://www.Arnnet.com.au
- CIO http://www.cio.com.au
- Tech News Review: http://www.technewsreview.com.au/article.php?article=6849

Associations/Government Agencies

- Australian Communications Authority: the chief regulator of the Telecommunications and Radio communications Act http://www.aca.gov.au
- Australian Information Industry Association: the industry association acting for the local IT industry http://www.aiia.com.au
- Internet Industry Association of Australia, Australia's national industry body for Internet commerce, content and connectivity http://www.iia.net.au

Contact

- Duncan Archibald at the U.S. Commercial Service in Sydney (email: duncan.archibald@mail.doc.gov)

AUSTRIA (2009)

Overview

In 2007, total packaged software sales reached approximately $1.88 billion, of which application software represented $907.4 million and systems infrastructure software represented $499.3 million. The value of IT services totaled $3.95 billon in 2007, representing a growth of 14.1% in U.S. dollar terms. In EURO terms, the market expanded by 4.6% over 2006. Operations management accounted for $821.4 million; system implementation accounted for $1.58 billion; support services $1.03 billion; planning $339 million; and IT training and education $179.4 million. IT services revenues were stronger than expected in 2007, as end-user organizations continued placing new orders in an effort to align business and IT.

Hosted application management, network and desktop outsourcing services, and custom application development were among the most dynamic foundation markets in 2007. Among engagement categories, outsourcing services still claim the largest market share, followed by deploy and support services and systems integration services.

In 2007 the combined finance sector was the largest vertical market in Austria. The combined manufacturing sector placed second, while the combined government sector ranked as the third-largest vertical market. In 2007, the telecommunications sector was the fourth largest individual vertical market.

Enterprises forced to align business more tightly with technology will provide ample opportunity for vendors. The separation between business and IT is being eradicated, leading to new opportunities for services providers who recognize this trend. Additional drivers will be the increased focus on higher-value services and innovation and strong demand for green IT, datacenter services, and virtualization services.

U.S. companies interested in competing in the Austrian market should

- Structure their services portfolios by industry and company size
- Deepen their relationships with their most loyal customers to increase revenues from these key accounts
- Focus on high level services to achieve high quality services delivery
- Recognize the possibilities in green IT and datacenter services and be aware that alignment of IT and business provides good opportunities for service vendors

The expected annual growth rate for 2008 will be 7.2% for software and 4.6% for services. In 2009, the annual growth rate is estimated at 6.5% for software and 4.8% for services.

Siemens IT Solutions and Services was the leading IT services provider in Austria in 2007, based on revenue of $811.3 million and 17.9% market share. Raiffeisen Informatik ranked second, with $486 million revenue and a market share of 10%, and IBM ranked third, with $363.3 million and a market share of 8% in 2007. The Federal Computing Center (BRZ) and T-Systems rounded out the top five IT services providers in Austria in

2007, with 6.9% and 5.1% shares. The information system outsourcing foundation market accounted for the largest share of 16% of IT services revenue in 2007, followed by systems integration which accounted for 13% and hardware support and installation for 11.2%. The combined outsourcing category comprised 39.6% of the IT services market in Austria in 2007.

In 2007, the combined finance (banking, insurance and financial services) sector was the largest vertical market in Austria, with $1.02 billion in services-related spending an accounted for a market share of 26%. The combined manufacturing sector ranked second with a market share of 19.4% based on services expenditure of $758.7 million. The combined government sector undertook IT services investment of $626.8 million last year to rank as the third-largest vertical sector, with 16.1% market share. The fourth largest sector was telecommunications, which accounted for 6.9% or $272 million of total IT services spending in Austria in 2007. Asian software vendors will emerge to capture regional and global markets. Many of these vendors will come from China, India, Korea and Malaysia, with a focus on enterprise applications such as ERM, CRM, and supply chain applications.

To compete, the software must be globally integrated and standardized with interfaces to all possible available packages. Software solutions must take into consideration local regulations and laws governing hardware produced and sold by different manufacturers.

European standards will facilitate entry into larger markets for application software. It is critical that software be “user-friendly” whether marketed to personal users, business professionals or executives. It is vital that the software be “bug-free” and preferably written in German. Software packaging is important for retail sales and should be in German. Leading drivers will include spending on security solutions, convergence of business and IT, streaming media, digital identity services, and the wireless rollout. Enterprise security remains a fundamental aspect of a company’s IT infrastructure, and is reflected in spending on IT services around security. Nevertheless, it is difficult to determine exact security budgets, as expenditure is spread across many departments within a company.

Themes such as physical security, information and transaction security and business continuity are being taken seriously, which creates a market for contingency planning, needs assessment, risk assessment, and management services. The market for security software totaled $84.6 million in 2007, an increase of 12.1% over 2006. The estimated growth rate for 2008 is 14%.

Best Products/Services

- Infrastructure software
- Performance monitoring
- Provisioning
- Compliance reporting
- Cluster visibility
- Change and configuration management.
- Multifunctional security solutions and security software in the IT market: Web services and digital identity services

Accelerated adoption of virtualization will create opportunities for vendors of infrastructure software that deliver products that manage this increasingly virtualized IT environment, particularly around performance monitoring, provisioning, compliance reporting, cluster visibility, and change and configuration management. Demand for multifunctional security solutions and security software is rising significantly. Security technology is an important foundational element for many of the leading growth drivers in the IT market today, including Web services and digital identity services.

Opportunities
The best opportunities for sales of U.S. software in Austria appear to be in the Internet systems engineering and applications consultancy, data bank and communications software/office automation, security, education, CASE, CIM and quality control. The primary end-users are industry, financial services, public administration, trade, health, energy, production, distribution and electronic banking.

Resources
- ADV – EDP Association http://www.adv.at
- Austrian Computer Society http://www.ocg.at
- Austrian Research Center Seibersdorf http://www.arcs.ac.at
- Vienna Chamber of Commerce–Dept. ICT http://www.computer-buerosysteme.at
- Information Industry Association http://www.viw.at
- Austrian National Competence Center for EDIFACT Development and Promotion http://www.austriapro.at
- Society of Austrian Internet Service Providers http://www.ispa.at

Contact
- Ingeborg Doblinger, Commercial Specialist, U.S. Commercial Service, Vienna, Austria (email:ingeborg.doblinger@mail.doc.gov)

BANGLADESH (2007)

Overview
The computer hardware, peripherals, and software market is worth roughly $143 million (Source: BASIS) and increasing by 15-20% per year. The U.S. share of this market is assumed to be more than 55%. There are approximately 1.5 million desktop PCs in Bangladesh, with sales dominated by locally assembled clones (80%). A large number of computer assemblers import motherboards and other components from Taiwan, China, and South Korea; however, the software and peripherals market is largely dominated by U.S. brands. Strong customer preference for U.S. computers and a zero import tariff points to good prospects for increased sales. There is no duty on the importation of computer items. Most vendors are targeting small offices and home users. A growing number of computer training schools, including one sponsored by Microsoft, will increase skilled computer personnel. Since the introduction of Internet services in 1997, a growing number of businesses and individuals are buying computers for their

communications needs. The central bank, the government-owned commercial banks, and private banks are continuing to computerize operations. Several local and foreign banks have installed ATM machines in various parts of Dhaka city. U.S. industry could capture the majority of this market, given senior bank management's familiarity with and preference for U.S.-made computers.

Best Products/Services

- Computer hardware and software

Opportunities

Bangladesh computer market is increasing 15-20% every year.

Resources

- Bangladesh Assoc. of Software & Info Services (BASIS) http://www.basis.org.bd
- Bangladesh Computer Samity http://www.bcs-bd.org
- Bangladesh Computer Council (BCC) http://www.bcc.net.bd
- Development Through Access to Network (D.Net) http://www.dnet-bangladesh.org

BRAZIL (2007)

Overview

Brazil Leads Latin American Software Revenues. As the largest and most dynamic information technology (IT) market in Latin America, Brazil offers significant opportunities for U.S. suppliers of IT products and services. Five important sectors of the Brazilian economy — agribusiness, textiles, health, electrical appliances and auto making — lose about $21.03 billion annually because of inefficiencies in their production chains, caused primarily by inadequate integration of IT systems within companies and between their suppliers and clients. Medium-sized businesses are beginning to leverage IT assets by adopting new applications designed to boost productivity and help them catch up with enterprising customers, suppliers and competitors. Given the forecast for steady economic growth over the coming years, Brazilian IT spending should increase at a healthy pace. Demand for telecommunication software is expected to grow as data, voice, conventional, and mobile technologies converge. Most significant within this sector is increased data communication in cellular telecommunications, which is expected to continue growing for a number of years.

According to the Brazilian Distance Education Association (ABED), at least 1.27 million Brazilians completed coursework through distance learning technologies in 2005, taking courses accredited by the Ministry of Education and Culture (MEC) or through public and private initiatives. The number of institutions with MEC authorized courses rose 30.7% between 2004 and 2005, from 166 to 217.

Information security from hackers and viruses continues to be an area of interest for companies in Brazil, with medium-sized enterprises (MEs) particularly interested in data

security and information backup/recovery technology. With increasing network and Internet-based connectivity, combined with frequent electronic attacks from viruses and worms, Brazilian MEs are realizing their vulnerability and have begun systematically implementing IT security measures.

Data Storage Should Surpass, $1 billion in Latin America. Though the data storage market already has considerable business volume and technological development, it continues to expand. This year, Brazilian companies will increase spending on data storage by 10% to $475 million. Investments in hardware should amount to $311 million, and in software to $164 million, according to an IDC study. In Latin America the sector should surpass $1 billion for the first time in history, with revenues of $728 million in hardware and $305 million in software. The figures correspond to 14% growth in hardware and 12% in software.

Open Source Gaining Favor in Brazil. Several Brazilian companies are already using Linux. According to the research held by IDC in February 2006, Linux has reported more than 20% growth in server sales, while Windows grew less than 5%. Unix loses more than 6% per year. According to Novell, corporate clients are discussing options to increase the use of Linux, versus three years ago, when they discussed not using the system. Nevertheless, a study disclosed that most consumers participating in the government's digital inclusion program choose to substitute free software that the came with a computer for another program, often pirated.

US Software Industry is Competitive. Industry experts predict $13.7 billion in software sales in Brazil during 2007. Of this, $5.9 billion will be imported, almost 70% from the United States. Although Brazil is the world's 7th largest software producer, only 2% of the industry's revenues are earned through exports. Brazil's government hopes to increase the country's software exports to $3 billion by 2007, assuming world software demand will triple over the next 5 years to $900 billion.

The development of an export-ready software market should create opportunities for U.S. suppliers and consultants. U.S. IT companies with proven sales and export records can be competitive in Brazil. While some in Brazil see the presence of competing multinationals as a negative, the combination of a burgeoning local industry and international competition are indicative of a maturing software market.

Software Piracy is Widespread

U.S. software manufacturers should be aware that severe software piracy exists in Brazil. Illegal copies of software are made locally or come from Southeast Asia and enter Brazil through Paraguay or other border states. The Business Software Alliance estimates that 50 - 60% of all software used in Brazil is pirated, resulting in losses of $500 – $600 million. Brazil's government has recently publicized stricter penalties, but uneven enforcement and judicial delays continue. The U.S. government continues to follow this rend closely. For more information please refer to our Intellectual Property report at http://www.focusbrazil.org/br/ccg

Resources

- For more market research http://www.export.gov/marketresearch.gov
- Business Software Alliance http://www.bsa.org

Contact

- For IPR-related issues please contact Dorian Mazurkevich, Regional Intellectual Property Attaché (Latin America) (email: dorian.mazurkevich@mail.doc.gov).

- For more information please contact Industry Specialists: Genard Burity (email: genard.burity@mail.doc.gov); Ebe Raso (email: Ebe.Raso@mail.doc.gov), Patricia Marega (email: patricia.marega@mail.doc.gov).

CANADA (2008)

Overview

The Computer Software market in Canada is estimated at $7.1 billion in 2007, with U.S. imports accounting for approximately 83% of the total market demand. Average annual growth rate in this sector is expected to continue at 4.5% through 2010, and market demand is projected to reach $8 billion by 2010. According to the Information and Communications Technology Council (ICTC), the relentless need to streamline business processes, improve supply chain integration, improve customer relations and deliver increased functionality for competitive advantage are the reasons behind the growth in this market.

Software as a Service business model (SaaS), hosted applications, and software on demand will be popular product delivery models. In addition, developments in the second generation of Internet-based technologies, and trends such as Web 2.0, will receive increased attention. Other trends that will have an important influence in the software market are issues concerning "IT security" and "Green IT," two major topics in both the public and private sectors.

Best Products/Services

Applications software includes:

- Enterprise Resource Management (ERM) software
- Security software
- The system and network management software
- System infrastructure software
- Networking software with a participation

"Other applications software" is the largest sub-sector in the software sector, which includes all applications software except Enterprise Resource Management (ERM) software. This segment represents about 36% of the software market with a total spending of $2.4 billion in 2006. This segment is expected to post an annual growth rate of 3.4% to reach $2.8 billion by 2010. The application development and deployment sub-sector accounts for approximately 28% of total software market demand in Canada,

valued at $1.9 billion in 2006. This sub-sector is estimated to grow at a rate of 5.1% per year during the next three years.

Enterprise resource management (ERM) applications contribute about 13% of the software market with a total spending of $833.3 million in 2006 and it has a projected annual growth rate of 5.4% over the next three years.

Security software will post the fastest growth with an average annual growth of 10% during the same period. This sub-sector has a participation in the software market of 4% and it was valued at $300.2 million in 2006.

The system and network management sub-sector represents 4% of the software market and the total spending in 2006 was $263.5 million. This sub-sector is forecast to grow quickly with annual growth of 6% over the next three years.

"Other system infrastructure" sub-sector accounts for 14% of the software market with a total spending of $948.9 million in 2006. This sector is expected to grow at a constant annual rate of approximately 2.9% throughout the next three years.

One of smallest sub-sectors within the software market is networking software with a participation of only 1% of the total spending. The value of the networking software sub sector was $85.8 million during 2006. This sub-sector will experience slower growth with only 1% annual growth in the next three years.

Opportunities

Canadian companies have a strong preference for vendors with a local presence either directly or through a partner. Partnering with a Canadian-based IT company that caters to outsourcing, consulting, or systems integration is a quick and cost-effective way to reach a large customer base. Alternatively, U.S. vendors may choose to have a direct presence in the Canadian market. Recently the Federal Government of Canada has updated the procurement process for the IT infrastructure. Government is interested in "Green IT" such as recycling initiatives, power-management strategies and virtualized work environments.

Resources

- Canadian Advance Technology Alliance http://www.cata.ca
- Greater Toronto Marketing Alliance (GTMA) http://www.greatertoronto.org
- IDC Canada http://www.idccanada.com/canada/index.html
- Information and Communications Technology Council (ICTC) http://www.ictc-ctic.ca/en
- Canadian Information Technology Spending Forecast http://www.ictc-ctic.ca/uploadedFiles/Labour_Market_Intelligence/Spending_Forecast.pdf
- Industry Canada http://www.ic.gc.ca/eic/site/ic1.nsf/eng/home
- Information Technology Association of Canada http://www.itac.ca

Contact: Viktoria.Palfi@mail.doc.gov).

CHILE (2007)

Overview

Chile's market for computers and peripherals has been showing positive growth over the last three years due to better overall economic conditions, 0% import tariffs and a 15% drop in prices. Computer hardware sales in Chile have approximately reached $622 million in 2006, representing a 16% increase over 2005. Market penetration of laptop computers in Chile, in 2006, represented 24% of PC purchases exceeding laptop sales in other Latin American countries where laptops are, on average, 10% of PC sales. The first choice in the hardware market among Chilean companies is Lenovo, a Chinese manufacturer that bought IBM's division of personal PCs at the end of 2004, followed by Hewlett Packard, and Dell. The principal suppliers of hardware in Chile are the United States with 33% of the market share, China with 32%, and Mexico with 7%.

It is important to note that a significant amount of this type of manufactured products, previously coming from the United States, are now coming from US IT companies based in China. The purchase of computer software by companies is also rising along with the overall growth in the economy. Small enterprises are important potential customers since they account for some 40% of software purchases done in the country.

Best Products/Services

The IT services market should be boosted by the U.S.-Chile Free Trade Agreement's guarantee of non-discriminatory access for U.S. service providers. Software application include

- Software development and implementation of solutions for industrial production processes.
- Software products aimed at small and medium-sized companies. The most common programs purchased by such companies are data processing programs, navigators, and email systems.
- Software: antivirus and antimalware.

Resources

- Chilean Association of Information Technology Companies http://www.acti.cl
- Chilean Software Distribution Association http://www.ads.cl
- Santiago Chamber of Commerce http://www.ccs.cl

Contact: Veronica Pinto of the U.S. Commercial Service Santiago (Veronica.Pinto@mail.doc.gov).

DENMARK (2009)

Overview

Denmark is a highly computerized society with a large and steady demand for state-of-the-art software and IT products. The country's IT readiness was recently confirmed

when Denmark topped the rankings in World Economic Forum's latest 2007/08 "Networked Readiness" report and technology consulting firm IDC's Information Society Index. The Danish ICT sector is a $35 billion industry with a dominating focus on software development and services and little in-country manufacturing. Navision (now sold to Microsoft), Kazaa, Skype, IO Interactive and Joost are all recent examples of successful software ventures with a Danish origin. U.S. hardware and software products are generally perceived as first rate.

As a result of the slowdown in the overall economy, total IT spending is predicted to drop marginally in 2009 and start regaining growth in 2010. A decline in hardware purchasing will cause the downswing as the markets for Services and Software are still expected to grow. In terms of hardware, this means longer Product Life Cycles, and increased pricing pressure. Corporate IT spending (hardware/software) will drop as large projects are postponed, just as the purchasing of 'nice-to-have' products will likely diminish. The areas of Consulting, Implementation and Training are expected to be hit the most within the IT Service industry.

Imports and exports of IT products have only increased slightly over the last couple of years, but over a five-year period, there has been a steep increase. Denmark has a trade deficit, especially when it comes to hardware products. New-To-Market companies will face serious competition from local, International and often also long-established U.S. companies. In a market dominated by a few very large importers and distributors, such companies should be prepared to establish a wholly owned subsidiary or sales office in-country (or within the Nordic region).

Best Products/Services

The Danish ICT sector is structured towards a service market rather than a production market. Looking at IT spending by sectors, the Public Sector is the largest and accounts for 25-30% of total spending, followed by the Financial Sector, 15%; Manufacturing 15%, Retail & Wholesale 10%, and other sectors for the remaining 30-35%. According to industry analysts, the top priorities of decision makers when investing in IT are currently: Mobility, Security, Business IT-alignment, Unified Communication, IT architecture (Visualization, SOA etc.), Business Intelligence and Outsourcing and "Green IT."

Opportunities

There is an ongoing development in the public sector to coordinate government IT usage and create a national IT infrastructure, which among other things will raise internal IT efficiency as well as meet a growing demand for e.g. e-government and electronic services to businesses and the public. In an effort to increase competition and ensure compatibility of IT systems, the Danish Parliament has decided that as of January 2008 (or whenever technically possible), all IT solutions in the public sector must be based on open source technology.

Outsourcing of IT functions and software development in the public and private sector is a large growth area. The Danish market for IT outsourcing was estimated at $1.48 billion in 2006. During the coming years around half of the existing outsourcing agreements in

both sectors are due for renegotiation. These contracts are considered to be worth $530 million, although it is expected that a majority of these agreements will be made with existing suppliers. Finally, the public sector aims to outsource its entire IT operations and is expected to sign outsourcing contracts worth around $100 million annually the next two to six years.

In part caused by the economic slowdown, Outsourcing will continue to grow as a cost-saving instrument in new territories. For a while, Outsourcing has played a big role with Government and large enterprises, and the arrow is now turning towards small and medium-sized companies. A number of international outsourcing companies have successfully established themselves in Denmark recently.

Resources

- The Danish IT Industry Association (ITB) is the largest and leading independent representative for the IT-business community in Denmark http://www.itb.dk
- Computer World http://www.computerworld.dk
- The National IT and Telecom Agency is part of the Ministry for Science, Technology and Innovation http://www.en.itst.dk

Contact: Peter Strandby, Commercial Specialist (peter.strandby@mail.doc.gov)

FIJI (2009)

Overview

Computer usage is increasing rapidly in Fiji. Growth in this sector is seen in the presence of four licensed Internet service providers, the increase in demand for IT training programs and institutions throughout the country, and the availability of a wider range of products, including wireless technology. While Internet access is readily available and competition in the market has resulted in a reduction in costs in urban centers, the relatively high cost of computer hardware, software, internet access and telecommunication services continues to constrain usage. The Fiji Islands Trade and Investment Bureau is undertaking extensive promotion missions to New Zealand, Australia and India to attract IT industries into Fiji. As a result, further growth can be expected in this sector from new foreign investments.

Best Products/Services

Fiji's location along the trans-Pacific Southern Cross Cable network underpins a small, but growing call center sector with potential for expansion. Efforts by government to liberalize the telecom sector, new networking and systems integration, and the expanding presence of regional businesses and international organizations all augur well for opportunities for U.S. suppliers in this field.

Resources

- Fiji Islands Trade & Investment Bureau http://www.ftib.org.fj
- Telecom Fiji http://www.telecomfiji.com.fj
- Fintel http://www.fintelfiji.com
- Fiji Audio Visual Commission http://www.fijiaudiovisual.com
- Unwired Fiji Ltd http://www.unwired.com.fj

FINLAND (2009)

Overview

The software industry is one of Finland's most prominent industry sectors. The industry - along with software entrepreneurship - has grown rapidly since the early 1990s. At the end of 2007, there were about 1050 software companies in Finland. Their business ranges from infrastructure software and data security solutions to various Internet and wireless applications, with strong technology forming the basis for innovative products. An increasing number of Finnish software companies seek to expand their operations to global markets and welcome contacts from U.S. companies.

The United States is the number one supplier of standard, non-customized application software. Competition for new-to-market computer software companies is strong and comes from previously established U.S. companies, such as Microsoft, Novell etc.
The Finnish software industry is characterized by the following trends:

- Expanding focus and application areas beyond traditional information and communications technology (ICT) software market (convergence)
- Fast-growing number of new start-up software companies
- Increasing role of Web-related software
- Fast-growing role of embedded software
- Increase in software exports
- Consolidation of software industry (mergers and acquisitions)
- Increase in mobile software

More than two out of three Finnish software companies develop and produce traditional ICT software. International software vendors have, however, rapidly increased their shares in the Finnish market. Finland's most common exporting countries are Sweden, the United States, and Germany.

Best Products/Services

The software market is less affected by the financial downturn, and quality products in Business Intelligence, offering clear value to the customer, may do well in the market. Although competitive, the security market also offers opportunities for high-quality products. The Finnish market is small, and large companies are few in number - they tend to have established software systems. Therefore, software market opportunities for U.S. companies are mostly within the small and medium-sized enterprises (SME) market. Finland has expertise in developing computer software products and is looking for U.S. partners that can provide funding.

Opportunities
Please see the Supplement to the European Union Official Journal http://ted.europa.eu. See also www.e-finland.fi (E-business projects). Due to changes in recent years in Russia and the Baltic countries, Finland also serves as an excellent gateway to these emerging markets.

Resources

- Helsinki Fair Center http://www.finnexpo.fi
- Ministry of Transport and Communications http://ww.mintc.fi
- Finnish Federation for Communications and Teleinformatics http://ww.ficom.fi
- Finnish Software Business Cluster http://ww.swbusiness.fi

Contact

- Local contact (email: terja.kunnas@mail.doc.gov)

FRANCE (2008)

Overview
With a turnover of $45 billion, the French software and IT services market ranks #2 in Europe after Germany and grows at a rate of 7% per year. This market has known a steady growth of 8% in 2007, pulled by demand in Consulting Services (up 6%), Engineering (up 4.5%), Facilities Management (up 9.5%) and Packaged Software solutions (up 5.5%). Over 6,000 French firms specialize in software services, 2,000 with 10 employees or more. Key activities in this market are Engineering and Integration (23%); Software Development and Technical Assistance (22%); Packaged Software (21%); Facilities Management and On-Line Services (20%); Consulting Services (8%); Training Services (3%); and Third-Party Maintenance (3%). According to Market Research Firm Pierre Audoin Conseil (PAC) the twenty software services firms that dominate the French market are IBM Global Services ($3.3 billion – 5% growth); Capgemini ($2.6 billion – 9.1% growth); Atos Origin ($2.4 billion – 0.3% growth); Accenture ($1.2 billion); Unilog-Logica CMG ($1.2 billion); Orange Business Services ($964 million); HP Services ($914 million); Sopra ($898 million); Steria ($785 million); EDS ($650 million); GFI Informatique ($615 million); CSC ($586 million); Bull Services ($533 million); Experian ($484 million); Euriware ($357 million); ADP GSI ($341 million); T-Systems ($322 million); Cegedim ($321 million); Osiatis ($293 million); and Nextira One ($284 million).

The French packaged software market is valued at $12 billion and grows at a rate of 6.5% per year. The ten largest software publishers on the French market are: Microsoft ($1.8 billion); IBM ($801 million); Oracle ($500 million); SAP ($391 million); Sage ($333 million); HP ($216 million); Symantec ($191 million); Cegid ($182 million); EMC ($158 million); Dassault Systèmes ($150 million); Adobe ($130 million); Business Objects ($111 million). Seven of these organizations are American. Only three, Cegid, Dassault Systèmes and Business Objects, are French.

Project Management Software. The market for management software applications has recovered from three years of recession. According to market consulting firm IDC, the Enterprise Resource Planning (ERP) market, which includes the sale of software licenses, maintenance and services, experienced 9.4% growth in 2006 to reach $5.3 billion in sales. Large corporations purchased $187 million worth of software licenses, a growth of 30% from 2005. On the other hand, SME sales only grew by 4.9% or $295 million. According to market consulting firm PAC, SMEs represent less than 30% of total sales, which means a strong potential for growth in this segment for providers of ERP solutions. Demand from large firms is supporting growth in the software and services market, especially in the area of infrastructure software, middleware, security, and business intelligence. In addition, recent decisions concerning the "Chorus" project at MINEFI, the French Ministry of Economy, Finance and Industry, confirm the public sector's role of growth driver in the French market.

Internet Connections and High-Speed Connections. According to market consulting firm Mediametrie, over 30 million French people or 57% of the French population are connected to the Internet, including 23 million or 44% of the population through a high-speed connection. On the business level, 98% of French SMEs use a PC; 80% are connected to the Internet, and over 50% have websites. SMEs (49%) have websites to provide services to their clients and suppliers, while French corporations (79%) use their website in order to promote their image. Seventeen% of these organizations engage in E-commerce.

E-Commerce. The French are overcoming their fears concerning purchases over the Internet. About two-third of the internet users pay a monthly visit to one of the top 15 e-commerce websites. This represents an increase of 16% in one year. In addition, 19.5 million Internet users – or four French people out of ten – indicate having already made on-line purchases. With a growth of 21% per year, growth of E-commerce is twice as fast as that of the Internet population.

Best Products/Services

- Management consulting in IT systems (+2%)
- Engineering services (+2%)
- Facilities management and Third-Party Maintenance of Applications (+8%)
- Packaged software (+5%) especially Integrated Management Software and PLM solutions, expected to grow respectively by 5.7% and 7.5% each year until 2008.
- Application Service Provider (ASP) solutions: this market grew from $400 million in 2004 up to over $1 billion in 2007. This includes hosted CRM solutions, whose growth has been 40% in one year. Service Oriented Architecture Solutions (SOA) – 70% of its current users are planning to expand these architectures further.

Opportunities

Airbus received 824 net firm orders for aircraft in 2006. Airbus production rates have remained above the 300 aircraft per year level for the past seven years, with 434 aircraft

delivered in 2006, 56 more than delivered the previous year. Across the aircraft spectrum, whether in large aircraft, regional aircraft, helicopters or business jets, demand is expected to remain strong and French manufacturers are experiencing high demand, which in turn should drive demand for U.S. components. The French aerospace manufacturers are also seeking to subcontract more and more in order to manage costs. With new projects in various stages of development and the increased value of the Euro vis-à-vis the U.S. Dollar, the French market provides substantial opportunity to the most competitive and innovative U.S. aerospace firms.

Resources

- International Data Corporation (IDC) http://www.idc.fr
- Pierre Audoin Consultants (PAC) http://www.pac-online.fr
- BIPE (leading European provider of forward-looking economic analyses and consulting services) http://www.bipe.fr
- Syntec informatique (French association of the software and computing services companies) http://www.syntec-informatique.fr

Contact: Embassy U.S. Commercial Service Trade Specialist (email: Myrline.Mikal-Goide@mail.doc.gov), (+33-1) 43 12 70 79, http://www.buyusa.gov/france/en

GERMANY (2008)

Overview

The German market for software is the largest in Europe and ranks second in the world, behind only the United States. Economic recovery and a backlog in IT modernization are driving factors prompting companies and institutions to invest in software solutions. One driving factor behind these investments is the increasingly important role of medium-sized firms in international business. They have a strong need to upgrade their existing software platforms according to the regulations and requirements of the global stage. As a result, the German market is anticipated to grow by 3-5% over the next few years. Even though German software companies are very competitive, analysts estimate that approximately 80% of software products sold in Germany come from U.S. suppliers (the majority of large U.S. software developers have subsidiaries in Germany.) There are no trade barriers obstructing sales of U.S. software. Industry-specific and niche products will continue to find good sales opportunities in Germany. However, as the European Union continues to expand as a single market, competition from other European software vendors is expected to increase.

Best Products/Services

Business intelligence software:

- Enterprise content management (ECM)
- Storage management software
- Product lifecycle management software
- Middleware
- IT-security
- Customer relationship management software
- Document management software
- Software as a service

Opportunities
The German public sector, along with the banking, insurance and medical sectors, the utilities and automotive sectors. Public tenders:

- http://ww.bundesausschreibungsblatt.de
- http://ww.subreport.de

Resources

German Government Agencies

- BSI (Federal Agency for IT Security) http://www.bsi.de/english/index.htm

Trade Associations

- http://www.bitkom.org
- http://www.eito.com
- http://www.vdbw.de
- http://www.bvdw.org

Trade Publications

- http://www.computerwoche.de
- http://www.informationweek.de
- http://www.computerpartner.de
- http://www.crn.de

Contact: doris.groot@mail.doc.gov

GREECE (2009)

Overview
Greece's Information Technology (IT) market, still a fairly immature sector, grew at an increasing rate during the past year. Hardware is currently its largest category, while business software has the strongest growth outlook. IT services, however, are becoming the leading category as there is an ongoing increase in relevant market needs and spending. Imports make up over 70% of the computer hardware and peripherals segment, and over 60% of that market is dominated by U.S. suppliers. Also, within the hardware category, mini notebooks (laptops) were the 2008 sales protagonists, as they accounted for over 60% of the one million personal computers estimated to have been sold during the year.

This IT sector growth during the past year was assisted by the depreciation of the U.S. dollar and the release of E.U. Support Framework III funds, accounting for increased IT projects spending, particularly by the consultants and the government. Also, the finance and telecommunications sectors, and companies trying to compete internationally, invested in IT. The increase in PC literacy, the spread of broadband, a wave of technology upgrades and demand for high value solutions by better trained personnel making IT-related decisions, stimulated this growth.

The largest share of IT services revenue in Greece last year came from systems integration, followed by hardware support and installation, software support and installation, and finally, the outsourcing of these services. The top ten leading IT Service companies by revenue in Greece are: IBM, Intracom, Hewlett Packard, Altec, Accenture, Unisystems, Singular Logic, Oracle, Info-Quest, and Byte Computer.

Last year, the finance vertical market was the largest in Greece in terms of spending on IT services, with banking being the primary source of spending. Greek banking has transformed, modernized and increased its international orientation over the past few years. Hence, a number of Greek banks have invested in modern IT systems and are also now offering services over the Internet and mobile phones.

The telecommunications sector is another big IT services investor. As Greek telecommunications companies expand into foreign markets, particularly the Balkans, they seek high value solutions, and procure consulting services to ensure success in these emerging markets, and adapt a centralized approach to their IT departments. Apart from the banking and telecommunications sectors, various other industries are making major software and services investments to standardize and optimize business processes, including tourism, transportation, and education. Some of the IT projects awarded or completed for the finance and telecoms sectors include: Eurobank's datacenter, software development for Marfin Popular Bank, IS system development for Pireaus Bank, data migration and cleansing for OTE, a high volume billing system for Vodafone, and a CRM system for another mobile operator.

The government of Greece (GoG) was also active in IT project spending including software development and office management automation projects for OPAP (Greek Organization of Football Prognostics), Information Society, Hellenic Posts, and over 10 courts across the country, as well as projects in the Ministry of Finance and the Ministry of Agriculture, including design and applications for the new e-government portal for the latter.

Best Products/Services

With a PC market growth rate at 25% and a rising internet and broadband penetration supporting overall e-commerce opportunity, the areas within the current state of the IT sector that are growing in importance include business software, systems integration services, IT consulting, outsourcing, and customized solutions. These opportunities are especially relevant as the Greek market consists mainly of small and medium sized companies that are looking more and more for IT services to manage their costs and data, and better support their customers.

Business software (including business process technology). The Greek market for business software, also termed as enterprise application software (EAS), is expanding and international vendors of integrated suites are making progress as they bring to bear their experience on the developing markets of the Central Eastern European (CEE) region. Furthermore, a few local players that broke off from the original

Greek software giants are now making major inroads into the market, primarily in the SME and Small Office Home Office (SOHO) segments.

Upselling to the large enterprise segments is also a business software-expanding activity. As large enterprise segments in Greece are more than 80% saturated in terms of EAS, there is little room for new customer wins and large revenue-generating projects at this end of the market. Nevertheless, significant revenue is still generated from their clients through upgrades and system extensions, such as adding Customer Relationship Management (CRM) or business intelligence modules.

Systems integration services are quickly gaining momentum as technology consolidation and virtualization, with high service level management, is required. This ongoing need to integrate hardware and software platforms stems from the organizations' priority to address network and operations optimization, technology modernization and network security issues to survive and grow in today's economically difficult and highly competitive environment.

As Greek businesses are striving to expand locally and abroad, they will increasingly turn to IT consulting to drive them towards advanced solutions linked to their future strategies. As such, IT/IS consulting is a key growth area for vendors, as markets mature and end-users become more knowledgeable about IT needs, risks and technologies.

Third parties will be required to come in and help businesses evaluate and make decisions on systems management, infrastructure needs and solutions, as well as IT security.

Another area that businesses will be looking for assistance is IT outsourcing. As the possibilities for outsourcing vary (i.e., network and desktop hosted services, infrastructure, information systems, applications, etc..), companies will look towards this option in cases where direct benefits are established and this is deemed cost effective, especially for SMEs which lack the relevant in-house expertise. The most prominent outsourcing categories in the current Greek environment appear to be within IT operation management, particularly in the network, desktop and IT infrastructure areas.

Finally, as packaged software is increasingly entering the Greek market, the need for customized solutions is gaining importance. Such applications address business intelligence and customer needs of companies as they are dealing with a changing and challenging business environment.

Opportunities

Emphasis is primarily on PCs and peripherals, but also on services, software and the expansion of the Internet. This creates numerous business opportunities for U.S. firms. American businesses should be aware that Greece has well trained IT engineers and professionals with a high level of expertise, as well as E.U. funding for IT projects.

Resources

- http://www.ebusinessforum.gr
- http://www.ktpae.gr
- http://www.grnet.gr
- http://www.infosoc.gr
- http://www.gsrt.gr
- http://www.sepe.gr
- IDC
- NetFax
- TechBusiness
- GFK Hellas

HUNGARY (2009)

Overview

According to a survey conducted by IDC Hungary, the size of the Hungarian IT market was $3.2 billion in 2007, representing a 4.4% yearly growth rate; $1.4 billion spent on IT services represents an 8.1% yearly growth rate; with a 44.7% share in total IT spending. Sales of hardware amounted to $1.3 billion, showing a decreasing share of 39.29% with only a 0.3% yearly growth rate. End users spent $518 million on software: an increase of 4.9% from 2006.

IDC estimates 2008 growth was 2% for the total IT market, with hardware sales decreasing, but services and software sales growing by 3-4%. In 2009, the overall market is likely to stagnate or even drop as a result of the economic crisis affecting key segments (e.g., public sector, financial, telecom and processing industry) that typically drive demand for IT developments. But in relative terms, IT should perform well.

Best Products/Services

- Customer Relations Management (CRM)
- Enterprise Resource Planning (ERP)
- IT security software

Forecasters anticipate 5-6% annual growth in the Hungarian Customer Relations Management (CRM) market. Banks, telecommunications companies, large companies and utilities are the primary CRM consumers. But SMEs are also a quickly growing segment as they are able to access special EU funds for IT upgrades. Major suppliers include SAS, Oracle-Siebel, Amdocs, Microsoft, SAP and some domestic companies like R&R Software. Hungary's service and support center sector is a growing consumer of CRM applications. There is also increasing demand for industry specific, vertical CRM solutions.

According to IDC, the size of the Enterprise Resource Planning (ERP) market was about $71 million in 2007. The SME sector was and continues to be the main driving force of the market. The potential here is large, as only a fraction of the thousands of SMEs have installed an ERP solution. Moreover, SME spending on ERP will increase substantially, again thanks to EU funding.

The automotive sector maintains a major share (25%) in ERP spending. Other leading sectors are commerce and utilities, each claiming a share of over 10%. The market of

ERP solutions for large companies has been saturated for years. However, opportunities to provide vertical solutions for special industry sector processes exist.

Major suppliers include: SAP, Microsoft, Libra (Hungary), Oracle and R&R Software (Hungary). Yearly growth rate for the next five years is projected by IDC at 8-9%. The largest growth is expected in the telecom, media and public sectors. While the market for IT security software had about 15% growth in 2007, and was estimated to grow by as much as 20% per annum in the subsequent years, current macroeconomic trends may ease growth rates in the short term. Still, the long-term outlook for security software is positive. Currently, over half of IT security spending goes for basic content security solutions like antivirus, spam, spyware, and web filtering software. Identity and access control management software has been the most dynamic segment in recent years - a trend that is likely to continue. Intrusion detection and vulnerability management software are growing more slowly. Major suppliers include Symantec, McAfee, and CA.

Opportunities
The EU supports development of Hungary's IT infrastructure through the second National Development Program. EU development funds totaling $4.6 billion for 2007-2013 will allow Hungary to increase IT spending by 25% over projected levels for the period including Customer Relations Management (CRM) and Enterprise Resource Panning (ERP) software. EU funds require a 30-50% matching contribution and are available for micro, small or medium size companies and private entrepreneurs. U.S. firms are eligible via partnership with an EU entity.

Resources

- Association of Hungarian IT companies http://www.ivsz.hu
- International Data Corp. Hungary Offices http://www.idchungary.hu/hungary/index.html
- Szamitastechnika (Computerworld) Magazin (weekly) http://www.computerworld.hu
- IT-Business (weekly magazine) http://www.it-business.hu
- European Information Technology Observatory http://www.eito.org
- A portal launched by Oracle Hungary, HP Hungary, OTP Bank and Leadex Hungary for SMEs and local governments on available EU funds http://www.directeurope.hu
- National Development Office http://www.nfh.hu

Contact: Commercial Specialist – Andrea Imrik (andrea.imrik@mail.doc.gov)

ICELAND (2008)

Overview
Iceland is probably one of the most computer-savvy countries in the world, and demand for the latest computer hardware and off-the-shelf software reflects this. According to the Global Information Technology Report for 2006-2007 Iceland ranked number 8 of 122

economies in terms of network readiness. Information on investment opportunities in the IT industry in Iceland can be found at Invest in Iceland Agency.

Opportunities
In addition to a strong consumer demand and the growing number of biomedical research and IT companies in the country, Iceland has abundant energy and a cool climate that make it attractive for high-capacity, high-speed data storage and processing equipment.

Resources
- Invest in Iceland Agency http://ww.invest.is
- Apple http://ww.apple.is
- Nyherji/IBM http://ww.nyherji.is
- Opin Kerfi ehf./HP http://ww.opinkerfi.is
- Microsoft Iceland http://ww.microsoft.com/iceland/msdk
- EJS/Dell http://ww.ejs.is
- Skyrr/Oracle http://www.skyrr.is
- World Economic Forum;
- The Global Information Technology Report http://www.weforum.org/en/initiatives/gcp/Global%20Information%20Technology%20Report/index.htm

IRELAND (2008)

Overview
The Irish software market is one of Ireland's strongest business sectors with annual growth rates of 3-6% in recent years. Overall, the market is more fragmented than the computer hardware sector, and the applications software segment is very fragmented. The Irish software industry is comprised of 900 firms employing over 24,000 people. It is an exported-oriented industry with over 95% of domestic production sold abroad. While Ireland is ranked as one of the largest exporters of software worldwide, some 60% of Irish software exports actually originate from U.S. subsidiaries. The 140 multinational software companies located in Ireland employ 13,000 people and use their operations to carry out a broad range of activities including core software development, e-learning, product customization, software testing, and fulfillment.

Best Products/Services
- Enterprise software: document and content management solutions, business intelligence and analytics, database, web servers and enterprise portals
- Network storage software
- Security software
- Software in the healthcare

While overall IT spending is expected to grow by 3.5% in 2008, the Irish software market is forecast to increase by 6%. The two key drivers behind this expected growth are an increased focus on business-value propositions as opposed to operational cost reduction

among IT decision makers and stable Government IT spending. Investment in enterprise software is expected to exceed $290 million in 2008 driven by document and content management solutions, business intelligence and analytics, database, web servers and enterprise portals. Expenditure on network storage software is over $70 million while the security software market is estimated at $140 million. Spending on software in the healthcare sector is expected to reach $38 million in 2008.

Opportunities
The Irish software sector offers excellent opportunities, at both market and sectoral levels, for U.S. firms with innovative and leading-edge software products. Market specific opportunities exist within the ERP, financial, healthcare, telecom segments outlined above while sectoral potential is encompassed by looking upon Ireland as a proven 'gateway to Europe'. In this regard, U.S. software SME's seeking to penetrate the lucrative European software market should consider entering into joint venture/licensing agreements with Irish firms who have the experience of exporting to EU markets. Local software firms engaging in exporting are interested in matching up with U.S. software firms.

Resources
- http://www.ictireland.ie
- http://www.software.ie
- http://www.ireach.ie
- http://www.e-tenders.gov.ie

ITALY (2008)

Overview
The Italian software market is one of the largest in Europe, and preliminary estimates value it at $6.29 billion in 2007, a 3.5% increase over 2006 in Euro currency. Market analysts forecast a cycle of steady and above-average growth for software in the next three years and a role as a strategic driver for the whole IT sector and for overcoming the innovation gap still present in the Italian economy versus other European countries. The growing importance of business issues such as governance, compliance and performance and risk management is a key factor for the development of middleware, which is increasingly being utilized as a solution in complex application integration projects (Service Oriented Architecture-SOA, Web services-security and consolidation/ virtualization). In 2007, middleware registered a growth of 6% and represented close to 30% of the software market.

The system software segment accounts for approximately 14% of the software market. It is driven by strong PC sales and by the anticipation of new releases and is increasingly becoming a service and project-enabling platform. Application software accounts for approximately 60% of the total software market, with packaged software representing 18% of all application software. Best performances are registered in the areas of Business Intelligence, Data Warehouse, ERP and SCM for enhancing the internal flow of

information, streamlining customer relationships, and expanding market penetration. Information security applications are also becoming increasingly important for Italian enterprises in all sectors, as well as ecommerce and e-procurement applications.

The digital divide between large/medium and small Italian companies, which had deepened during the years of economic slow down, is constantly shrinking. Small companies, which make up approximately 90% of all Italian businesses, are renewing their installed IT hardware base and are introducing new IT technologies with the aim of increasing their competitiveness. Large and medium-sized companies 2/22/2008 continue rationalizing and optimizing their existing IT infrastructures to improve productivity and obtain benefits in terms of flexibility and governance, and in 2007 many of them started new projects.

The Italian banking sector, which has been the most active in investing in innovation through new technologies, is focusing on delivery channels to give customers greater access to their banking services. The Public Administration at the local level is also investing heavily in software applications, and will continue doing so in an effort to increase and improve its online services and advance Italy's information society.

The Italian software segment is heavily fragmented among approximately 75,000 firms, which include manufacturers, distributors and importers. The 30 largest companies hold approximately 70% of the business. Italy depends heavily on foreign production of software, which accounts for approximately 60% of the total software market value.

The United States is the leading exporter of multiple platform and application software, with a share of approximately 80% of imports. With the economic climate improving, U.S. software companies should be among the main beneficiaries as the market recognizes the supremacy and innovative quality of American products.

Best Products/Services

- Network & System management and monitoring software
- IT security software
- Software for Application Server
- E-commerce applications software
- Enterprise resource planning (ERP) software
- Supply chain management (SCM) software
- Customer relationship management (CRM) software
- Business Intelligence software
- Data Warehouse software

Demand for Open Source Systems is expected to grow considerably, as well as demand for Network & System Management and monitoring solutions, with IT security solutions becoming increasingly important (including intrusion prevention and detection systems, identity management solutions, firewall software, secure content control software, internet access control tools, and security authentication, authorization and administration tools). The Application Server market is also growing as a solution for complex

application integration issues, together with the consolidation of Service Oriented Architecture (SOA) platforms. E-commerce applications are one of the fastest growing segments, with procurement applications in the lead. Enterprise resource planning (ERP) software, supply chain management (SCM) software, and customer relationship management (CRM) software will also continue to be in demand, as well as Business Intelligence and Data Warehouse software.

Opportunities

The implementation of privacy legislation calling for security measures to protect personal data and the computer systems utilized to process the same is contributing greatly to the growth of ICT security investments in all industrial and services sectors. All Italian companies are implementing a systematic approach to security issues, including prevention of threats, evaluation of existing security measures and adoption generally of new hardware, software and services to protect data. Excellent business opportunities are available to U.S. firms offering innovative and technologically advanced ICT security software products and experienced in advanced types of security situations and their solutions.

In the Public Administration sector, demand for advanced solutions to new challenges is creating new opportunities: this includes the management of large command, control and logistics systems for civil protection projects – from the management of major events with large participation of the public to the management of emergency situations, and large mobility and security projects. Solutions to enhance government efficiency are also becoming increasingly important, including interoperability of large databases, privacy, services to the citizens, environmental protection, energy saving, development of tourism and protection of works of art. Public Administrations make most purchases by public tenders open to both domestic and foreign companies. Announcements of tenders on public procurements are monitored by the U.S. Mission to the European Union and can be accessed through the webpage: http://www.buyusa.gov/europeanunion

U.S. technology and standards are highly regarded, and the best opportunities for success lie with American companies offering innovative and sophisticated products. However, it is essential that U.S. companies with no direct presence in Italy team up with well-established Italian firms for distribution or partnership agreements in order to handle the burdensome bureaucratic procedure of public procurement and to maintain person to-person contact with customers, which is essential in Italy.

Resources

- Nicoletta Postiglione, Commercial Specialist, ICT Sector
  American Consulate General, Commercial Service
  Via Principe Amedeo 2
  20121 Milan, Italy
  Tel. +39/02/62688-522 (direct phone number)
  Fax +39/02/6596561
  Nicoletta.Postiglione@mail.doc.gov
  http://www.buyusa.gov/italy/en

- Ministry for Reforms and Innovation in Public Administration - Department of Innovation and Technologies (in Italian only) http://www.innovazione.gov.it/dit

- CNIPA – National Center for ICT in Public Administration (in Italian only) http://www.cnipa.gov.it/site/it-IT/Il_Centro_Nazionale/Chi_siamo

- CONSIP – Company for the development and management of public e-procurement http://www.consip.it/on-line/Home/Englishversion.html

- Summary of Italy's Data Protection Code http://www.garanteprivacy.it/garante/doc.jsp?ID=1030925

- Confindustria Servizi Innovativi - Italian Federation of companies and associations in the telecommunication, broadcasting and information technology industries http://www.confindustriasi.it/_nuovositov1.0/index_.php

- Assinform - Italian ICT companies Association (part of the Italian Industrialists Association) http://www.assinform.it/english_version/_profilo_eng.htm

- Assintel - Italian Software and Services companies Association http://www.assintel.it

- Storage Expo/Infosecurity - The most important Italian ICT storage and security show http://www.infosecurity.it

- Held in Milan every year in February. Next edition: February 2009. 170 exhibitors and more than 5,500 visitors, 20 highly specialized conferences. The Commercial Service in Milan will organize a US Pavilion at the Show, offering a full package of market-entry services.

JAPAN (2008)

Overview

The average growth rate for Japan's total packaged software market is 4% but the growth rate varies among software categories. Security software, for example, is growing at 20% due to increased security awareness among businesses and implementation of the Japanese version of the Sarbanes-Oxley Act (J-SOX). Virtualization software is also surging at a 39.8% growth rate according to IDC.

Best Products/Services

- Security software and virtualization software

Opportunities
The demand for distinctive U.S. software, especially for security and virtualization software is high. Game software consistently makes up approximately 50% of the total market; however, users are gradually shifting from packaged software to online games for home computers and mobile phones. Tokyo Game Show 2008 (9/20-23, 2008) http://expo.nikkeibp.co.jp/tgs/2007/english/index.html

There are three key elements to launching software products into the Japanese market: (1) localization – Japanese translation, testing, and customization are essential for all software products. Software suppliers should also consider Japanese business customs and culture to meet local client needs; (2) support capability – support in the Japanese language is a must; and (3) product quality – high quality control is one of the most important considerations for Japanese users.

Resources
- Computer Software Association of Japan (CSAJ): http://www.csaj.jp/english
- Japan Information Technology Services Association (JISA) http://www.jisa.or.jp/english/index.html

Contact: Rika Saito (Tokyo) Rika.Saito@mail.doc.gov)

LITHUANIA (2008)

Overview
The Lithuanian IT market is small but developing rapidly. Both public and private sectors cite IT infrastructure development as strategic priorities. The public sector has an IT infrastructure development plan. Businesses increasingly install corporate LANs. A growing number of private consumers are purchasing computers and peripherals. The computer and peripherals market in Lithuania is well developed and all major hardware and software suppliers, including Microsoft, IBM, HP, and Compaq, have a market presence. There are about 500 computer companies in Lithuania, of which approximately 20 dominate the market. American-branded equipment and accessories account for 80% of the total annual imports in this sector.

The sale of personal computers started to grow rapidly from 2005, primarily because of new tax incentives that provide personal income tax deductions for PC purchases. The Communications Regulatory Authority forecasts rapid expansion of internet penetration. In the last few years, the internet penetration rate in Lithuania has grown to 35.9% (EU-25 average is 51.3%). The number of internet users has risen 11-fold in the past three years, to 1.3 million subscribers. One in five internet subscribers enjoys broadband internet access. Lithuanians have access to the cheapest broadband internet in the EU, with prices for the most popular fast (1Mb/s) internet connection averaging EUR 14 per month, half of what users pay in most other EU member states.

The focus of the Lithuanian IT sector in recent years has been on creating the necessary infrastructure to meet the demands of an information society. Demand for software development and consulting is growing rapidly. Supporting networks -- including LANs and WANs -- and internet applications are in demand.

Best Products/Services
The best prospects for U.S. IT exports are powerful multi-media processors, networking equipment, and internet and e-commerce application software. Supporting networks -- including LANs and WANs -- and internet applications are in demand. IT goods and services exports comprise only about 0.3% of Lithuania's total exports at present, leaving substantial room for growth. Demand for IT services is growing in countries neighboring Lithuania, creating lucrative export opportunities for Lithuanian companies, and the demand for computer equipment is forecasted to grow.

Resources: Infobalt: www.infobalt.lt

NETHERLANDS (2009)

Overview
The software segment grew by 8.1% in 2008, caused primarily by increasing integration in business and production processes. This segment was the fastest growing segment within the Information Technology sector. Growth in this sector is predicted to be between 0 and 5% in 2009. Some analysts are predicting negative growth in this market segment in 2009, with a recovery in 2010.

The software market primarily depends on imports. Local software development mostly concentrates on business applications and custom products. Exports of Dutch products are limited. Most exports consist of re-exports by local subsidiaries of non-Dutch producers. U.S. companies are the largest suppliers (e.g. Microsoft and other multinational software producers) followed by European software producers.

The total market is almost equally divided into applications software and systems software. Windows is the standard in the business market, although the use of Linux is gaining ground. UNIX, closely followed by Windows, is still the most commonly used operating system for servers. The Dutch government promotes the use of Open Standards and Open Source Software within the government. The government and financial sectors traditionally have been major end-users of all types of software products.

The business market, with an increasing need to streamline business processes, has also been a significant user. More recently the SME market has begun to emerge as an attractive new market for ICT suppliers. The consumer market has grown rapidly in recent years due to increasing use of the Internet, games and online gaming.

Best Products/Services

- Standard Applications software
- Networking software
- Network security products includes intrusion detection and prevention products
- Development tools
- Storage management software
- Customer Relationship Management (CRM)
- Enterprise Resource Planning (ERP)
- Supply Chain Management (SCM) products.
- Application management and content management products
- Game software

Resources

- OSOSS, the program for Open Standards and Open Source Software in Dutch Government: http://www.ososs.nl/about_ososs
- Dutch Trade Association for the IT and Telecommunications Industry: http://www.ictoffice.nl

NIGER (2008)

Overview

Many imported U.S.-manufactured hardware and software products are sold on the local market. There is room for further growth in this sector.

Opportunities

All major U.S. brand names - via their European branches - are well represented by local distributors and/or agents. Consequently, 2004 statistics indicate that France is the largest exporter of computers, with 47% of the market, although a good portion of that consists of U.S. brands. Direct imports from the United States accounted for 7% of the market in 2004.

Resources: http://www.stat-niger.org

NIGERIA (2008)

Overview

Nigeria sees the United States as a role model on technology matters, especially leveraging technology for development. However, an increasing number of Nigerian technology leaders see Indian technology parks as preferred prototypes for adoption and replication in Nigeria. The Director General, National Information Technology Development Agency (NITDA), Professor Cleopas Angaye, said that there are a number of initiatives to facilitate information technology diffusion in Nigeria over the next 2-5 years. The three most prominent initiatives are: 1) Technology Park by Federal Ministry of Science and Technology to spur research and development at state levels; 2) IT Park

by NITDA to encourage software development especially targeting schools, young school leavers and university/college graduates; 3) Abuja Technology Village meant to attract multinationals and local industry leaders to localize at the capital city of Abuja.

The NITDA IT Park is a proposal to partner with state governments to develop and build IT Parks for software and human capital development. According to Professor Angaye, implementation of the proposal may require technical partnership with and inputs from foreign experts and there are no restrictions on which country may participate. Another initiative of the agency is Rural Internet Access launched in 2007 to promote governance and universal access. Under this program, 20 internet centers were built and enabled by VSAT technology in different rural areas in Northern and Southern Nigeria in 2007. About 40 Internet centers are proposed in the 2008 budget. For more information about NITDA, visit http://www.nitda.gov.ng

Another significant factor in Nigeria's computers, software and peripherals market is the "Computer for All Nigerians Initiative (CANi)". CANi is a government-assisted program designed to diffuse information technology to local communities and to make PCs available to all Nigerians. Two U.S. firms, Microsoft and Intel, are providing technical support to the program through their operating systems and processors respectively, while about four Nigerian PC assemblers are supplying the hardware. CANi was launched July 6, 2005, but its impact was not felt until 2006. According to the Project Management Office (PMO), over 17, 000 personal computers have been supplied to various end-users under the program.

In a press briefing Professor Cleopas Angaye, Director General of NITDA, disclosed that the idea of CANi was aimed at finding a way to produce and supply a customized PC that would serve the need of ordinary Nigerian end-users at a delivery cost far below current market prices. Since 2007, there have been allegations of defaults and breach of original agreements by some participating members. Despite the allegations and controversies, the program seems to be on course and is generating a lot of interest among potential users. The zeal with which the Abuja Technology Park was launched seems to have died down due to a change in leadership in the Federal Capital Authority in 2007. A national committee set up to prepare preliminary guidelines is already operational, but concrete actions have yet to be taken toward project implementation, particularly infrastructure development at the site. The park is estimated to cost about $400 million. The government of Nigeria promised to provide about $34 million as seed money for the project, while the private sector is expected to raise the balance. Already, some leading software firms, including Microsoft and Hewlett Packard, and two Chinese firms – Huawei Technology and ZTE -- have expressed an interest in the project. Nigeria hopes to generate more than $4 billion in export sales when the technology village is completed in about 3-4 years.

In May 2007, Afrihub Nigeria, representing Afrihub Inc, received an approval from Federal Ministry of Education to build and manage Technology Parks in all the Federal Universities in Nigeria. Afrihub in partnership with a leading local computer hardware/peripheral supplier, Zinox Technologies Limited, and with the support of the

Nigerian Universities Commission (NUC), is building information technology parks in federal universities in Nigeria starting from University of Nigeria, Nsukka commissioned in 2006. Each of the parks operates about 200 workstations and trains over 1000 students every month. Annually, Nigeria produces about 150,000 graduates but less than 30% of the graduates have basic information and communications technology skills.

Technology diffusion to Nigerian schools and colleges may receive a boost if the “one laptop per child project” and several similar intervention schemes succeed in the country. Nigeria is one of the developing countries selected for a pilot program, which has taken off successfully in some community schools at the capital city of Abuja. One Laptop's founder, Nicholas Negroponte, at a forum organized to discuss emerging market opportunities at the International Consumer Electronics Show in Las Vegas in January 2008, praised Nigeria’s efforts. He assured that the project would revolutionize the way young people live, relate and enjoy life in all of Africa, and raise the quality of future leaders on the continent. All the projects have provisions for computer technology appreciation courses for teachers, students and project facilitators.

Over the past two years, Nigeria has made significant progress in creating awareness about the importance of information technology in education and human capital development, particularly as the world increasingly globalizes. Consequently, the country is receiving increasing technical and financial support from multilateral agencies such as the world bank, and is signing various public-private partnership (PPP) agreements with foreign firms such as Cisco Systems (about 22 Cisco Academies in the country with over 1400 students), Microsoft (support for local software development and Intellectual Property protection/enforcement), and HP (SME enterprise support). According to Jidaw Systems Ltd, an local industry leader, it is in recognition of the importance of software that Government of Nigeria (GON) in conjunction with Nigerian software practitioners developed the Nigerian Software Development Initiative (NSDI). NSDI website states, “The Nigeria Software Development Initiative (NSDI) is a presidential initiative on the development of the Nigerian software industry which is born out of the realization that the nation has abundant intellectual capital whose genius and creativity in software development could help jump-start Nigeria’s participation in the booming global software industry”.

The Nigerian financial services sector is experiencing major changes on several fronts, especially computerization of critical functions, processes, and decision centers such as customer interfaces. According to market intelligence, Indian exports and resident nationals dominate banking applications in Nigeria. The United States is the lead in front-end posts and infrastructure (Microsoft), data bases (Oracle), servers (IBM), work stations (HP) and networking (Cisco). Nigerian commercial centers are awash with ATMs as banks compete for customer attention and patronage. All the banks advertise that their mobile banking capabilities and service delivery options are available 24/7. Recent market intelligence indicates that Nigeria is entering into an emerging consumer market era, which is fueling a rising demand for computers, software and peripherals. In 2006, an industry report published by several local papers estimated that over $35 million is required to upgrade old ICT infrastructure and install new systems, including software

to facilitate service delivery and business-process integration. Current market conditions validate that forecast.

Best Products/Services

Computer peripherals and power-support systems remain the best prospects for this market. Handheld devices such as PDAs and other wireless portables are in great demand in Nigeria due to expansion of the cellular telecommunications infrastructure and services across the country. Micro-and mini-computers and state-of-the-art printers represent some of the best sales opportunities and will account for the bulk of imports from the United States in this sector over the short and medium term.

More and more local firms prefer to buy locally assembled PCs, which are priced much cheaper than branded ones. Currently, several Nigerian ICT firms are expanding to neighboring countries such as Ghana, Gambia, and Liberia. This market expansion, industry analysts say, will fuel import growth and local assembly. The falling prices of IT products, the ongoing campaign to bridge the so-called digital divide and the push by regulatory agencies in Nigeria to achieve universal access according to the International Telecommunications Union (ITU), are factors helping to spur auxiliary services such as business centers, value-added services, and marketing of communications equipment, including computer hardware. These auxiliary services are creating opportunities for localization of small enterprises that need information and communications technologies to focus on niche markets and specialties. Even in unusual places, such as rural villages close to cell sites, micro businesses are springing up from the multiplier effects of the GSM networks.

Software for bank consolidation, integration, security management and business continuity offer great growth opportunities in Nigeria. Opportunity abound for certificate courses targeting young school leavers, especially graduates interested in professional advancement, mid-level managers eager to grow and prosper in their careers, teachers and lecturers, who are responsible for computer education and knowledge management at various levels. Two franchise firms, NIIT and Aptech, both originating from India, currently dominate this sub-sector. They have training centers in all the six geo-political zones of Nigeria.

Currently, China is the strongest and most aggressive threat to U.S. market share in this industry sector. Chinese firms offer a combination of incentives including 90-day credit sales, sponsored training programs, participation in local trade shows, frequent visits to Nigeria to monitor market trends and partnership/joint ventures for market development. U.S. suppliers will continue to face aggressive competition from European and Asian companies that now export computer parts and peripherals for local assembly of PCs in Nigeria, but U.S.-origin equipment is generally considered superior. End-users, however, prefer suppliers who, in addition to prompt delivery of products, are able to provide timely after-sales support, including spare parts at competitive prices. Experts predict that this trend will likely continue for the foreseeable future.

Opportunities
Although the application of ICT in Nigerian education is nascent, however, this is a fast–growing sector, with software and teacher professional development in high demand. With the current national ICT in education policy at all levels of education, participation of local firms in increasing access to computers for schools, unprecedented opportunities are opening up for educational software, support for teacher training and cheaper, easier–to–use technology.

Statistics show that there are about 210 colleges and universities in Nigeria and many of them have an average student population of 20,000 with a computer ratio of 200 students to 1 computer, or worse for most state-owned institutions. The demand for skilled manpower to train teachers and technical staff in schools and administration offices through outsourced technical support of private organizations is soaring. In July 2006, the World Bank announced $150 million budget assistance in support of Nigeria's science and technical education at the national symposium on "Nigerian Universities and Competitiveness of the National Economy."

According to the World Bank's recent Country Director, Dr. Hafez Ghanem, the focus of the project is to target selected science and technology institutions with the objective to "inculcate a culture of quality and competitiveness within tertiary institutions – a necessary first step to producing the right type of graduates to lead Nigeria's transition into a competitive economy."
http://wwwwds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187283&siteName=WDS&entityID=000020439_20070824134626

In April 2007, the World Bank also approved a $65 million International Development Association's (IDA) credit to the federal government of Nigeria for the state education sector project. The bank's project "will focus on school development through school grants; quality improvements through teacher development, provision of learning materials, expansion, rehabilitation and upgrading of basic education facilities in targeted local government areas."
http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=368896&menuPK=368931&Projectid=P096151

MICROSOFT/INTEL/HP/IBM, U.S. based hardware/software companies have been involved in a public private partnership (PPP) agreement with the federal government in the Computer for All Nigerians Initiative (CANi). Microsoft is also an active participant in a partnership with British American Tobacco and USAID in a $1.3 million project at the University of Lagos to supply software to enhance computer access and help adapt school curricula to private sector skill demand.

Another U.S. firm that has continued to explore this evolving market is AFRIHUB. They have achieved this through partnership with select federal universities to finance, implement and operate ICT "parks" at host institutions, while the schools provide the facility and basic utilities, and grant AfriHub the exclusive right to provide and manage

ICT services on campus for a minimum of 5 years. Each "park" includes a state-of-the-art student and faculty cyber center and fully equipped training classrooms, with more than 200-networked computers powered by Zinox Technologies via its Computerize Nigeria project. Through its blended curriculum, hands-on technical training by expert instructors supplemented by custom-courseware and online sessions, high-speed broadband internet access, AfriHub Universal Mandatory Information Technology Training (UMITT) is currently providing training to 1,300 students per month on ICT at the Nnamdi Azikiwe University, Awka, Anambra State; 1,000 students per month at the University of Nigeria, Nsukka, Enugu State; and 980 students per month at the University of Nigeria, Enugu campus, Enugu State. In the mid to long term, AfriHub proposes to extend this partnership to more universities and polytechnics in Nigeria.

The immediate past president of Information Technology of Nigeria (ITAN), a trade association, Chris Uwaje, estimated that the software needs of Nigerian organizations (including educational institutions) is worth $2.9 billion in 2007, the bulk of which comes from foreign sources. The Institute of Software Practitioners of Nigeria (ISPON) in its recent report said that the annual consumption of software in Nigeria touched a new height of N900 million ($7,086,614) in 2006."

Resources

- http://www.widernet.org/nigeriaconsult/nuc.htm
- http://ww.nitda.gov.ng
- http://ww.ncc.gov.ng
- http://www.jidaw.com/softwareproviders.html
- http://ww.ispon.org

Contact

- Senior Commercial Specialist, U.S.: Anayo Agu, Commercial Service, Lagos, Nigeria (email: anayo.agu@mail.doc.gov)

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NORWAY (2009)

Overview

Modest growth in the IT services sector is expected in 2009, including systems integration, application development and licensing. However, analysts have lowered estimates two or three times between September 2008 and January 2009. No one seems to know exactly the direction. IT outsourcing and systems integration services experienced significantly growth during the period 2005-2008. These are still leading sectors and currently the services that generate the highest revenues in the entire IT industry, besides telecommunications.

Consolidation among system integrators was a trend in 2008, where the largest players try to get a solid representation throughout the Nordic region. This is driven by the nature of their customers, who have also acquired or grown a pan-Nordic outreach.

The latest figures from Statistics Norway show that "software consultancy" employed 28,400 people in 2006. Turnover increased by 14.8% from 2005 to 2006, to $1.1 billion.

Enterprise software. Application development is expected to see slower growth and smaller margins in the Nordic countries, whereas software support and network and desktop outsourcing will see positive growth. Application Management (AM) and hosted utility services are by IDC expected to be the fastest growing sectors in Norway and the Nordic region.

Norway is in the forefront of adopting hosted software (hosted on servers outside the enterprise), and AMR Research estimates that these so-called "on demand software" solutions account for about 10% of the market today. Virtualization is increasingly winning support as a cost-saving technology, according to trade sources, especially in a country like Norway with great distances.

IDC's Enterprise Technology Trends Survey for 2005 showed that companies in 2004 considered that their primary motive for IT investments was to contribute toward cost-cutting (65%), and that increasing revenues was secondary (35%). A year later, the ratio was 50/50. Today, focus seems to be back to cutting costs.

End-users of software products in Norway represent diverse user groups such as large industrial corporations, small and medium-sized companies, government agencies, and universities and schools. It should be mentioned, however, that there have been significant investments in top-of-the-line software products in certain sectors, with oil/gas and shipping/maritime being one of the substantial vertical markets. Norway is the world's 3rd largest exporter of crude oil and 5th largest exporter of natural gas and many of the IT companies serve this increasingly high-tech market. Shipping, fisheries and other maritime industries also make significant contributions to Norway's GDP. An IBM Research study shows that the finance, insurance and media market has the highest percentage of total cost related to IT (36%), whereas manufacturing (20%) and the public sector (13%) come in at number two and three, respectively. A Statistics Norway survey from 2007 showed that the IT market related to manufacturing was the fastest growing sector. This picture will probably change in 2009.

IT security. Another promising IT sub-sector is IT security for the enterprise market. This market develops much faster than other parts of the industry, as threats emerge at a rapid pace. Empirical data from all vertical industries show that companies have big holes into their critical and sensitive data – wherever that data may be. A 2009-study suggests that Norwegian companies incurred losses of $85 million last year from hacking and theft. The health, banking and telecom sectors are among the most vulnerable as they have the greatest challenges handling the most sensitive type of data. Larger companies with higher revenues and larger IT budgets tend to be more secure than smaller

companies, but far from secure enough. U.S. security vendors with niche products should consider Norway and the Nordic region. Value added resellers (VARs) and systems integrators are on a constant lookout for new features to secure their customers.

Platforms. UNIX, Linux and Microsoft are the leading platforms. 98% of the software applications run on (or can run on) the Microsoft-platform, whereas 61% and 60% respectively can run on UNIX and Linux. The private sector is the largest buyer of software (66%), whereas the public sector accounts for 16% of the market. 62% of Norwegian municipalities used open source software in 2007. Open source software is used to a relatively large extent in education, but is little used in public administration.

Consumer market software. Demand for consumer software packages tends to mirror sales of hardware - that may experience a modest decline in 2009. Consumers tend to purchase off-the-shelf products, or products already bundled with the hardware they purchase. Software facilitates education and distance learning shows promising sales potential in the Norwegian market. Microsoft Vista is the standard for most new hardware, and Windows 7 has high expectations. Open Office has a small but growing share of the consumer market. Like in most other markets, consumers who enjoy free software will think twice before buying.

Best Products/Services

- Systems integration
- Application development and licensing
- Enterprise software: Application Management (AM)
- IT security
- Operation System Platforms

Opportunities

U.S. software vendors should consider partnering with a local company, either through joint venture or value added resellers. Norwegian enterprise end-users tend to doubt that non-Norwegian developers will be able to understand local conditions without a local partner, especially for development of administrative and financial solutions. Companies that translate their programs into Norwegian will also have a greater advantage.

Resources

- The Ministry of Government Administration and Reform: http://www.regjeringen.no/en/ministries/fad.html?id=339
- The Ministry of Transport and Communications http://www.regjeringen.no/en/ministries/sd.html?id=791
- ICT Norway (Norway's largest IT-organization with over 320 members) http://ww.ikt-norge.no
- Abelia (Association of Norwegian ICT- and knowledge based enterprises, associated with the Confederation of Norwegian Enterprise) http://www.abelia.no
- EE Branch of Trade http://www.elektronikkbransjen.no

POLAND (2009)

Overview

The Polish software market is estimated at $1.4 billion. Growth of computer software sales is directly related to increased investments in computer systems, especially in computer networking and enhanced functionality. Though computer piracy remains a problem, continued education campaigns and IPR law enforcement have led to increased sales for consumers.

Polish companies provide approximately 60% of software sold, while U.S. companies hold over 25% of the total software market. Poland has many skilled, well-educated software engineers and offers good investment incentives, and as such has become a popular location for offshore software development.

Increased security awareness of end-users and service companies has boosted the sales of a variety of security software solutions, including administration applications. Other popular business application software includes Enterprise Resource Planning (ERP), specifically software that is designated for vertical markets such as process production, warehousing, financial services, wholesalers and retail trading. In general, customer-tailored software represents good prospects for sales in all market segments.

Best Products/Services

- Security software
- Software for networking and tools
- Software for mobile applications
- Specialized business application software

Opportunities

Demand for IT products, including computer software, is expected to continue despite the economic slowdown. EU funds are available and can be used for regional development projects and by companies investing in equipment and software for greater productivity. All projects financed from public funds are subject to public procurement tendering rules. Financing and banking, telecommunications and public sectors account for half of all expenditures on IT products in Poland. These sectors are expected to remain best buyers in the future.

Resources

Contacts for Marketing and Advertisement

IDG Polska publishes Polish editions of 10 publications, including Computer World, PC World Komputer, Net World, and IT sector ranking Top200. IDG also organizes seminars and conferences and offers marketing services.
http://www.idg.com.pl/informacje.html

Migut Media publishes several ITC publications, including TeleInfo and IT Reseller as well as IT rankings and reports. These publications are appropriate for

advertising within the industry. The company also organizes IT conferences and offers market research and marketing services. http://www.migutmedia.pl

The U.S. Commercial Service Warsaw, Poland (Maria.Kowalska@mail.doc.gov)

ROMANIA (2008)

Overview

The Romanian packaged software market continued to expand at annual growth rates of over 15%, reaching $168 millions in 2006 (+15%) and an estimated $195 millions in 2007 (+16%). Software represents only 12% of overall IT expenditure, and the market volume is still low when compared with other Central-Eastern European countries or with EU-27 average. However, the Romanian software market is one of the fastest growing in Europe, fuelled by a rapidly growing economy, high levels of foreign direct investment and modernization of infrastructure aimed at aligning the public sector with EU standards and norms.

Imports cover 70% of the local software market and more than 3/4 of all foreign software products in Romania are American. Practically all internationally well-known software producers are present on the Romanian market. At the same time, local software companies are increasingly involved in packaged software development, especially in ERP/EAS, antivirus, e-health and e-learning areas.

A number of Romanian software products have gained success on the global market, generating substantial levels of sales or winning awards at an international level (BitDefender/Softwin security and antivirus product, Siveco's AeL eLearning platform, the Intuitext/Softwin e-learning suite or TotalSoft and Transart's ERP solutions). In the last three years, multinational IT vendors and foreign investment funds made a number of acquisitions of, or investments in, Romanian companies. These include Siemens SBS' and Ness Technologies' acquisitions of IT service providers Forte and

Radix, investment by Intel Capital in Siveco Romania, TechTeam Global's purchase of offshore development specialist Akela Informatique, Adobe's acquisition of InterAKT, investments by American and European funds in TotalSoft, UTI or Romsys and many others. Recently announced are the acquisitions by groups of investment funds and angel investors of minority participation in Axigen/GeCAD and BitDefender/Softwin.

Best Products/Services

- Systems software and development tools
- Enterprise application software: Customer Relationship Management(CRM), Supply chain Management(SCM) and Business analytics

Systems software and development tools market segment accounts for more than 50% of overall local software expenditure and is dominated by US vendors Microsoft, Oracle and

IBM. In December 2007 Microsoft announced more than 100.000 Windows Vista licenses sold in Romania.

The enterprise application solutions market is mainly represented by EAS (Enterprise Application Systems) with a value of $53 million in 2006 and a 17.5% year-on-year growth, according to IDC. The top three vendors (SAP, local player Siveco and Oracle) captured 65% of the Romanian EAS market. The large corporate and the government sectors are still the biggest spenders on EAS, but the market is progressively expanding into the small and medium-sized businesses segments. The top-selling EAS modules are the resources management and core functionalities, but an increasing demand is noted for more complex applications like customer relationship (CRM), supply chain (SCM), or business analytics, which are expected to grow rapidly in the next years. The largest vertical EAS spender in 2006 was the combined (process and discrete) manufacturing sector, followed by retail and utilities.

Spending on content and document management solutions (some $8 millions in 2007) is largely confined to the government and financial services sectors. The security software market (less than $15 millions in 2007), now dominated by Anti-Virus, and firewall/VPN software is changing with significant growth in the 3As (Authentication, Authorization, Administration) application sector. The market for applications related to technology management is still in an early stage of development.

Opportunities
Higher spending on software applications is expected in the next two years, driven by economic growth and companies' efforts to improve business process efficiency and regulatory compliance and to compete in the EU marketplace. Another growth-generating factor will continue to be the government-supported implementation of such large IT projects as the development of information systems for public administration at both local and national levels and the expansion of e-government and e-commerce. Functional markets providing the best opportunities in the next period include EAS, BI, CRM, SCM, security, e-health and e-learning. Verticals like utilities, government, retail, manufacturing and telecommunications will continue to grow significantly.

Resources
- Doina Brancusi, US Commercial Service (email: Doina.Brancusi@mail.doc.gov)

RUSSIA (2009)

Overview
Russia represents a growing and dynamic market for IT industry suppliers. The Ministry of Information Technology and Telecommunications estimated that the overall Russian IT market was worth $17 billion in 2007 with real growth of 9% over 2006. In 2008, the total IT market was expected to reach $20 billion, rising 18% in real terms over 2007. This growth rate is considered more moderate, however, as market forecasts have been revised downward due to the recent economic crisis. The previous significant increases

were due to the favorable economic situation in general, the strong ruble, and high demand for IT services in both the government and corporate sectors. The latter include the oil and gas, metallurgy, financial services, telecommunications and retail industries.

Given the current economic situation, growth may slow, but the numbers will remain positive. Many major U.S. companies are already present in the market and their products are available either directly or through representative offices or distributors.

At the end of 2008, the number of computers in Russia exceeded 27 million (with the number of regular internet users totaling 40 million). Total units are forecast to reach 60 million in the next five years, an average annual growth of 17%. Core IT market segments include hardware (64%), software (11%), and services (25%). As in previous years, the hardware segment is key to the structure of the market. In terms of growth, laptops have the best prospect in the hardware segment (71% share in the first quarter of 2007). The leading manufacturers on the Russian PC market in 2008 included Acer, HP, Asus, and Kraftway. Although the hardware segment dominates, services have become the fastest growing segment of the IT market following a 30% increase in 2007.

Although intellectual property protection concerns remain, the situation for software piracy is improving. In 2008, the Business Software Alliance (BSA) reported in its fifth annual study of 108 countries that the estimated software piracy rate in Russia dropped the most of any country, declining from 80% in 2006 to 73% in 2007. The BSA attributed the decrease to software legalization programs, Russian government engagement, user education and increased law enforcement efforts.

In the IPR Side Letter, part of the U.S. – Russia bilateral agreement on WTO accession, Russia committed to address piracy and counterfeiting, and improve protection and enforcement of intellectual property rights before Russia completes its accession to the WTO. This binding Agreement also requests that Russia establish a more transparent system for the import of electronic goods with encryption, a major U.S. export. For additional information on the Agreement and IPR in particular see the side letter at: http://www.ustr.gov/assets/World_Regions/Europe_Middle_East/Russia_the_NIS/asset_upload_file148_10011.pdf

Best Products/Services

In 2008, the market for services was the fastest growing IT segment, including consulting (60% growth), development and customization (29%), education and training (30%), outsourcing (24%), deployment and support (23%), and integration (34%). Software in conjunction with services is also showing positive dynamics. According to 2007-2008 sales results, the best prospects in the software segment are specialized productivity products (60% growth), enterprise resource planning (51%), business intelligence (45%), and security (40%).

Continuing growth in the number and purchasing power of small and medium-sized private enterprises is driving demand for legally imported operating systems, software application packages and enterprise management software. The notebook computer

market grew by 71% in 2007, and sold a record two million units. According to industry specialists, the notebook computer market accounted for 31% of the IT hardware market in 2008. Although desktops are the market's driving force, due to increased sales to home and government consumers, they no longer dominate the market and have given way to increasing laptop sales.

The best opportunities for sales of U.S. manufactured hardware are: laptops, data storage systems, data center solutions, servers, networking equipment, communicators/PDAs and internet mobile technology. The growth of operating systems and software applications has been stimulated by growing public awareness of IPR issues and by producers' efforts to provide product support to legal users only.

Opportunities

Computer hardware, peripherals, software and IT services are growing steadily and play an important role in the Russian-U.S. services trade because most high-tech equipment is imported. While at much lower rates, most experts believe that growth will continue because the current economic crisis will impact IT projects and sales less than other sectors.

Resources

- Ministry of Information Technologies and Communication http://www.minsvyaz.ru
- Federal Agency for Technical Regulations and Metrology http:// www.gost.ru
- Russian Center for Tests and Certification (Rostest) http://www.rostest.ru
- Russian Standard, general representative of ROSTEST for North America http://www.rosstandard.com

Contact

- Timur Uddin, Commercial Specialist (email: Timur.Uddin@mail.doc.gov) Tel: 7 (495) 728 5526 (direct); 7 (495) 728 5580

SINGAPORE (2008)

Overview

Singapore presents a lucrative and expanding market for U.S. companies that would like to provide IT goods and services to the public sector. The government continues to aggressively implement and adopt infocomm technology while it has already won significant recognition for its e-governance, topping Accenture's annual e-government survey in 2007. In FY2007 (April 2007 – March 2008), the Singapore government expects to issue $480 million worth of new IT tenders. As in previous years, it is expected to spend more than the estimated budget.

Best Products/Services

Best prospects include application software, security solutions, and government projects. The Singapore market is very dependent on imports and multinational corporations located on the island to provide for its IT requirements. U.S. products are traditionally

well received in Singapore as the United States is seen as the source for state-of-the-art technologies. Singapore also acts as a major distribution center for companies interested in selling to the region as reflected by re-export data. More than two-thirds of computer hardware and software imported into Singapore are re-exported to third countries in Asia.

Opportunities

A major program under iGov2010 (http://www.igov.gov.sg/) is a government-wide Standard ICT Operating Environment (SOE) to be implemented by the 4th quarter of FY2010 across 60,000 seats and 87 different agencies. It will comprise a standard desktop operating environment, a standard messaging and collaboration environment, and a standard network environment. On June 21, 2007, four pre-qualified consortia submitted bids for the SOE, all of which include one or more U.S.-based companies. The final contract, estimated to be worth $1 billion over eight years, is expected to be awarded in 2008. More information on SOE program can be found at http://www.igov.gov.sg/NR/rdonlyres/FE46DD55-92C7-4A72-B9D2-1D11A7055539/0/SOE_Factsheet_12July07.pdf

Call for collaborations (CFC) was launched to spur IT initiatives in certain sectors of the Singapore economy.

- In healthcare, a CFC - the second for the sector - was launched to identify solutions that will improve the quality of healthcare delivery and efficiency in Singapore's public and private healthcare institutions.
- Within the transport sector, a CFC was launched to bring together the seaport community and solution providers to develop and launch innovative content and applications on WISEPORT. WISEPORT (Wireless-broadband-access at SEaPORT) is a project to deploy a WiMAX network that will cover Singapore's port waters and surrounding coastal areas.
- In the digital media and entertainment arena, the IDA invited industry players to submit information and concept proposals for a program to harness Virtual Worlds technologies to realize the iN2015 Digital Media and Entertainment vision.
- In education, the IDA is working with the Ministry of Education (MOE) to transform the educational experience through the FutureSchools@Singapore project. The FutureSchools are a group of schools that will leverage on state-of-the-art technologies and innovative school designs to develop innovative curriculum, pedagogies and assessment programs.
- In the tourism sector, the Digital Concierge initiative launched in June 2007 leveraged Singapore's new anytime-anywhere Internet Wi-Fi access or the available cellular network, to offer personalized and location-based services such as recommendations on where to go, where to eat and what to do.

According to the latest study by New York-based Access Market International (AMI) Partners Inc., small and medium-sized businesses (SMBs) in Singapore are on track to spend as much as $2 billion on information technology in 2008. The bulk of IT spending will come from three key sectors - professional services, retail/wholesale and manufacturing - which will account for over 60% of overall IT spend in 2008.

Since 2004, Singapore-based SMBs have been investing heavily in wireless connectivity solutions including wireless LAN (local area networks), VPN (virtual private networks) and WAN (wide area networks), according to AMI. Coupled with aggressive branch office plans, Singapore SMBs are looking to implement solutions that will enable them to keep in contact with remote locations while simplifying the management of inter-office moves and facilitating smooth employee relocations.

Las Vegas Sands and Malaysian conglomerate Genting are currently building two mega billion integrated resorts in Singapore and information technology is a critical part of these two projects. There are therefore excellent opportunities for U.S. IT companies to participate in the two initiatives. Las Vegas Sands' integrated resort includes a casino, hotels, restaurants, retail outlets, trade exhibition and convention space. Genting is building an integrated resort including a casino, hotels, restaurants, retail outlets and a Universal Studios theme park. The two resorts are expected to start operations in 2009 and 2010 respectively.

Resources

- http://www.ida.gov.sg
- http://www.sitf.org.sg/marketplace/bizopp.aspx
- http://www.export.gov/market_research/index.asp

Contact

- U.S. Commercial Service, Singapore Contact
  Ms. CHIA Swee Hoon, Senior Commercial Specialist
  Email: SweeHoon.Chia@mail.doc.gov

SLOVENIA (2008)

Overview

The software market in Slovenia is estimated to be approximately $280 million per year. Some 80% of Slovenian demand is met by imports and is dominated by U.S. vendors. The most promising sub-sectors are business software (for financial institutions or financial packages for companies), CAD/CAM applications, and entertainment software. Imports and exports of hardware are very liberal. Top vendors have strong subsidiaries in Slovenia or have built good relations with existing domestic computer companies. Because of the strength of the U.S. IT industry, American companies or their distributors win many major IT contracts. The Slovenian market for computers and peripherals is approximately $380 million per year, with U.S.-based multinationals controlling more than 70% of the market share. Demand is expected to continue to grow at a steady pace in the coming years.

SOUTH KOREA (2008)

Overview

The Korean market for packaged software, including systems infrastructure software (e.g. operating systems, security software), application software (e.g. Word, Excel, enterprise solution packages), and application development/deployment software, was valued at $5.9 billion in 2007. Forecasts are for the market to reach $6.33 billion in 2008 and grow at an average annual rate of 8% for the next three years. Korea's global leadership in wireless communications and broadband Internet access services has spawned tremendous demand for all types of software, especially for specialized and innovative technologies, providing opportunities for sales of advanced and highly specialized U.S. software solutions. U.S. suppliers' willingness to customize their software to meet specific user needs is a critical factor in end-user purchase decisions. Although U.S. software is considered superior, Korean end-users, more often than not, will avoid purchasing from U.S. suppliers if localization cannot be achieved.

In 2007, the total import market for packaged software represented 3.1% of the total market demand valued at $19 billion, which, in general, consists of packaged software, computing-related services/software, and digital contents. Although the statistics show the import market share to be relatively low, in reality, the substantial amount of localized or customized software and systems integration (SI) services provided by major U.S. subsidiaries that participate in large projects as strategic partners are counted in the total Korean software market share.

U.S.-sourced packaged software accounts for more than 80% of Korea's software import market, and U.S. suppliers are expected to remain the principal suppliers of packaged software to Korea for the next several years. Technological advancements in Korea's software sector are still behind that of the U.S. and Japan, a result of Korea's relatively recent computerization and an acute shortage of highly qualified software engineers. Korea's systems integration companies and software developers are actively trying to develop partnerships with global leaders in every segment of IT services and solutions to deliver total solutions to clients in a time-to-market manner and to target the domestic and global market at the same time. U.S. suppliers will continue to enjoy the competitive advantages of strong project management and marketing skills, compared to Korean firms and third-country suppliers.

The overall market demand for packaged software has been growing in relation to the development of Korea's advanced IT infrastructure and related services in the e-commerce and telecom segments and will continue to grow at an average annual rate of 8% for the next three years. The fact that the Korean government has increased efforts to strengthen its IPR protection and enforcement through the Computer Program Protection Law (CPPL) has also contributed to the strong growth in demand for both Korean and imported packaged software.

Best Products/Services

- Systems Integrations/IT Services/Software as a Service (SaaS) in Finance, Telecom and the Public Sectors
- Digital Content Development Services/Internet Protocol TV
- Enterprise Solutions Upgrade Projects by Both Major Enterprise and Small-and-Medium Firms

Opportunities

The market demand for IT services, digital content, and security software are forecast to experience strong growth, driven by mergers and acquisitions among Korea's financial institutions. Companies should expect continued investment in wireline/wireless broadband convergence infrastructure, as well as by growing demand for upcoming Internet Protocol TV.

Resources

- Ministry of Commerce, Industry and Energy (MOCIE) http://www.mocie.go.kr/eng/default.asp
- Ministry of Information and Communication (MIC) http://www.mic.go.kr/index.jsp
- Radio Research Lab (RRL) http://www.rrl.go.kr/eng/index.jsp
- Korea Association of RFID/USN (KARUS) http://karus.or.kr/eng/index.asp

Local Contact

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  Website: www.buyusa.gov/korea

SPAIN (2009)

Overview

The Spanish software market is highly competitive, yet affords significant opportunities for U.S. companies. The software market accounts for nearly 15% of the Spanish IT market. In 2007, the market breakdown by type of software reflected strong growth over the previous year in the following categories: Multimedia applications (25.4%), vertical applications (21.4%) and development software tools (10.8%). Operation systems software represents about 27% of total sales, followed by horizontal software applications (18%) and communications software (17%).

Consumer Spain has a relatively high level of software piracy, although enforcement is improving. Demand for software is expected to be affected in 2009 by the Spanish

economic spending on software will be impacted, although demand for multimedia software is likely to maintain growth. Government spending is fueled by the drive to increase available e-government services and by the health sector, and is likely to increase. In the business sector, the drivers for demand in major corporations are integrated IT security, business process management and document management. Small and medium-sized companies are more likely to limit their expenditures in this area. The use of on-demand software is expected to increase.

More than 70% of IT company headquarters are located in two autonomous regions, Madrid and Catalonia. The total number of IT companies in Spain is estimated at 13,800. Wholesalers and distributors play an important role in the market. Under the Information Technology Agreement, to which the EU is a signatory, there is no tariff on computer equipment and software sourced from the United States. However, under the U.S.-Spain double-taxation treaty, an 8% royalty tax applies to deliveries of U.S. software.

Best Products/Services

- Software focused on vertical applications
- Communications software
- IT security software
- Virtualization software
- Digital forensic solutions

Opportunities

- On-demand software will experience an expanded customer base
- Open source software for local and regional government entities
- Solutions for systems integration

Resources

- Secretary of State for Telecommunications and Information Society http://ww.mityc.es/telecomunicaciones
- Spanish ICT Association (AETIC) http://www.aetic.es
- Spanish ICT Association (ASIMELEC): http://ww.asimelec.es
- SITI/ASLAN (Madrid, February 26-28, 2008) http://www.siti.es
- SIMO TCI (Madrid, November 11-16, 2008) http://www.simo.ifema.es
- Secretary of State for Telecommunications and Information Society: http://www.mityc.es/telecomunicaciones
- Commercial Service Spain http://www.buyusa.gov/spain

Contact

- Trade Specialist for Telecommunications: Jesus Garcia (email: jesus.garcia@mail.doc.gov)

SWEDEN (2009)

Overview

The Swedish software market is sophisticated with skilled domestic software development companies. Sales are around $3 billion. The market is expected to grow by only a few percent in the near term due to the current global economic situation when many large IT projects will be put on the back burner. The Swedish software market consists of global software development companies and small, innovative niche oriented companies. There are around 800 Swedish software development companies in Sweden, many of which specialize in systems software for communications, business systems (tax and accounting packages with local applications), and applications software for telecommunications. Security software and Web related software are also a dominant segment among Swedish software developers.

Swedes are sophisticated IT users and are looking for the latest solutions that will increase customer service, cost savings, and also enhance business processes. Demand is expected in the following segments: solutions for business intelligence, information management, applications for increased mobility, e-business, and information security. U.S. products are well received and 75-80% of imported application software is of U.S. origin. The market is highly competitive and customers are looking for products that will make business processes efficient, robust, and flexible.

Best Products/Services

- Network security applications
- Business Intelligence Products
- Storage management applications
- Applications for increased mobility

Resources

Contact

- Ministry of Industry, Employment and Communication http://www.industry.ministry.se
- Invest in Sweden Agency (ISA) http://www.isa.se
- IT Sweden Information site on the Swedish ICT sector. http://www.itsweden.se
- U.S. Mission to the European Union, Foreign Commercial Service http://www.buyusa.gov/europeanunion/
- Local Commercial Specialist (email: gunilla.laroche@mail.doc.gov)

TAIWAN (2009)

Overview

Taiwan's computer services and software market relies heavily on imports, and U.S. computer service providers and software vendors have a strong reputation for providing integrated solution capabilities and high-performance products with advanced features that are in high demand. However, due to the high costs and difficulty of foreign direct

investment, increasing numbers of U.S. computer service providers are partnering with local IT service providers to better manage time to market and customization issues.

Marketplace success depends largely on product localization into the traditional Chinese characters used in Taiwan, business practice customization, and flexible pricing policies. U.S. market dominance is expected to continue in the foreseeable future, despite increased competition from local and third-country suppliers.

Best Products/Services

- Business application software
- Information security solutions
- Storage solutions (hardware embedded software)
- Information system integration and consolidation solutions
- On-line learning/entertainment products and services
- Business intelligence-related applications

Opportunities

Demand is increasing for various systems solutions – legacy information technology systems integration, enterprise-wide work flow systems, CAD and other industrial design software, improved government workflow, and facilitates information system/platform consolidation.

Rising awareness and concern for information security issues are also driving the growth of the information security solutions and integration market. Mergers of financial holding companies require considerable integration of existing information systems, and this has stimulated the demand for software and information services.

Taiwan is launching an e-Government initiative to provide more government services online, and this is spurring the development of new information services and Internet applications. However, the flight of Taiwan's manufacturing industries to other low-wage countries has somewhat dampened investment in the software and information services industries.

U.S. software producers have the capability and experience for large-scale and mission critical software solutions used in high-tech manufacturing and finance. These applications also include data storage requirements and custom-designed business intelligence features.

The demand for business applications for small- and medium sized enterprises is also increasing. The rising popularity of online services such as games, shopping, music, and video has stimulated strong market demand for networking services. U.S. content providers and platform developers have many opportunities to work with domestic service providers.

As firms integrate Taiwan into their China operations, the demand for robust communication links between China and Taiwan is bolstering the expansion of high speed networking hardware, software, and services.

Resources

- Institute for Information Industry (III): http://www.iii.org.tw
- Industry Technology Research Institute (ITRI): http://www.itri.org.tw

Contact

- CS Taiwan Commercial Specialists Allen Chien (email: Allen.Chien@mail.doc.gov) and Frances Li (email: Frances.Li@mail.doc.gov), or visit http://www.buyusa.gov/taiwan/en

UKRAINE (2009)

Overview

Imported software dominates on the office software market and on the market of software solutions for government, businesses and industry. Windows and Microsoft's Office programs are currently the most widely used office software in Ukraine. This software is installed on approximately 98% of all PCs operating in the country.

Illegal imports of pirate office software, illegal use of software licenses and domestic pirate industry production have a severe impact on the size of the legitimate software market. They also have an impact on sales statistics: to fight piracy many PCs are sold with preinstalled software. Therefore, official sales statistics show higher numbers for hardware and lower numbers for software. However, most U.S. and international suppliers of software report strong annual sales growth ranging from 15% to 40% for several years in a row. These successes of software suppliers would be even more impressive if not for obstacles created by complicated and controversial Ukrainian licensing procedures and customs regulations.

One of the specific features is an impressive growth in sales to households, small and medium businesses. However, these sectors are most prices sensitive. They are also primary targets for distributors of illegal software.

Best Products/Services

- Operating systems
- Office applications
- Accounting programs
- Multimedia
- Security solutions
- Computer software services

Opportunities

- High quality software development.
- Private and corporate procurement tenders http://uatender.com/category/03

Resources

- Association IT Ukraine http://www.itukraine.org.ua
- Euroindex, leading organizer of IT trade shows in Ukraine http://www.euroindex.com.ua/index.php?m=1&lng=e
- Leading IT publications and catalogs http://www.itcpublishing.com/ua/?lang=en http://www.pcweek.com.ua
- Association of computer clubs http://www.uacc.org.ua/en

VIETNAM (2008)

Overview

The information technology (IT) industry represents one of Vietnam's fastest growing sectors. Surveys conducted by international firms and local industry associations show Vietnam's IT sector growing from 20 to 25% annually in the coming years.

The Government of Vietnam has articulated its commitment to boosting the development of the IT industry, particularly in software production, Internet infrastructure, IT education promotion, and other forms of human capital development.

Vietnam's IT industry recorded sales of $1.74 billion in 2006, and is estimated to reach $2.26 billion in 2007, with rapid growth continuing through 2008 and beyond. Vietnam's imports of computer hardware and peripherals totaled $1.4 million in 2006, and exports $1.23 million. The market is still concentrated in two major cities: Ho Chi Minh City (HCMC) and surrounding provinces and cities, which accounts for approximately 60% of all sales; and Hanoi, which accounts for about 30% of the market.

Sales have been dominated by hardware, which has accounted for approximately 80% of total IT spending during the past five years. This focus on hardware reflects, in large part, the widespread piracy of software and lack of effective protection of intellectual property. In 2007, Vietnam's hardware imports totaled $1.412 billion (13.9% increased over 2006) and exports reached $1.233 billion (18.3% increased than that of 2006). Vietnam's computer software imports increased from $18 million in 2006 to $30 million in 2007.

The U.S. export of computer hardware products to Vietnam was ranked 6th in the list of top exporters to Vietnam in 2007 with the value of $41 million. (Note: data on enterprise software are not available.)

Although its base was small, the software and services sub-sectors' growth rate was 32%, due mostly to the development of digital content and software outsourcing. IT training turnover reached $15 million, while turnover in the digital content sub-sector was $65 million.

It should be noted with regards to software and hardware that inadequate intellectual property rights protection causes serious challenges for legitimate exporters to Vietnam. At present, although the piracy rate has been coming down, Vietnam is still among the

world's worst 20 countries for IPR violations. According to Business Software Association (BSA)'s Piracy Study Report conducted in May 2007, Vietnam's software infringement rates in 2004, 2005, and 2006 were 92%, 90%, and 88% respectively.

Government enforcement of newly passed IPR laws remains woefully insufficient, though the GVN is focused on improving its track record, especially in regards to enforcement. Internet related service providers represent another fast-growing industry sector for IT equipment, software, and service suppliers, as the Internet market has also developed rapidly in recent years. Internet usage has increased as evidenced by the entry of many Internet service providers (ISPs) into the market. Broadband market demand has increased so rapidly that the current market supply does not meet demand. (See Telecommunications Equipment and Services section.)

In short, large market demand from Vietnam's computer software and hardware service sectors (as well as from other sub-sectors) presents great potential for U.S. exports this year and in the coming years.

Best Products/Services

- Enterprise applications: Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) software

U.S. exporters will find Vietnam an attractive market for many IT hardware products, such as networking equipment and Internet related equipment. Many American ICT giants have marketing operations in Vietnam such as Microsoft, Oracle, Intel, Dell, HP, and Cisco Systems, to name a few, though mid to small-sized technology providers have also found success. Software and services are also among best prospects for U.S. IT exporters, especially enterprise applications such as Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) software, as Vietnam's new membership in the World Trade Organization (WTO) furthers its integration into the global economy.

Opportunities

American ICT companies will also find growing opportunities for doing business in Vietnam, particularly in sectors associated with Internet development. Continued implementation of the 2006 "e-transaction" law, and the associated building out of the country's Internet infrastructure, is driving demand for e-commerce and other value added applications and services.

The GVN has prioritized its initiatives into major areas such as e-Government, e-commerce, e-training, and e-healthcare to ensure that the entire population will have ready access to community information and services such as fire and rescue, health emergency, public order, and natural disaster response.

The ICT industry offers opportunities for training service providers as well. The Government has drawn up an ambitious plan for the domestic industry that aims at reaching annual sales of $3 billion by 2020. The plan consists of three major programs:

the development of IT human resources; the development of a software export sector; and the development of a hardware-manufacturing base.

Currently, Vietnam does not have the capability to execute the Government's plan in any of these areas. In order to do so, significant investment in training and technology transfer must occur – a need that could offer significant export opportunities for American ICT hardware and service suppliers. Vietnam will continue to import a significant number of PCs and peripherals. The primary customers for imported equipment are multi-national corporations, large state owned- enterprises and the Government. The computer services market has evolved into a two-tier market, whereby foreign computer firms serve foreign businesses operating in Vietnam and local firms cater largely to Vietnamese clients. For the most part, foreign companies seeking computer services use foreign invested service providers, while Vietnamese companies rely on local computer retailers who offer a limited package of services. Vietnamese buyers of Computer hardware and software frequent the following regional show:

Resources

- **Nguyen Dzung, Commercial Specialist**
  U.S. Embassy in Hanoi
  E-mail: nguyen.dzung@mail.doc.gov
- **Huynh Triet, Commercial Specialist**
  U.S. Consulate General in Ho Chi Minh City
  E-mail: triet.huynh@mail.doc.gov
- Vietnam's Ministry of Information and Communications (MIC)
  http://www.mic.gov.vn
- Vietnam's Ministry of Industry and Trade (MOIT) http://www.moit.gov.vn
- Ministry of Science and Technology (MOST) http://www.most.gov.vn
- Ministry of Planning and Investment (MPI) http://www.mpi.gov.vn
- Vietnam Internet Network Information Center (VNNIC) http://www.vnnic.net.vn
- Vietnam Post & Telecommunications Group (VNPT) http://www.vnpt.com.vn
- HCMC Computer Association http://www.hca.org.vn

V. Trade Events

Trade events, such as trade shows, trade missions and catalog shows, offer excellent opportunities for face-to-face interaction with foreign buyers and distributors. Of the many U.S. and international events held throughout the year, some are vertical (single Computer Software theme) and some horizontal (many industries represented). The events organized or approved by the U.S. Department of Commerce can be especially useful for first-time or infrequent participants – they require less lead time to register and typically involve more handholding.

The Trade-Event Scheduling Web sites listed below allow selective searches for upcoming events by Computer Software, location, type and date. They typically provide the event organizer, event descriptions and costs, and people to contact for more information.

To find upcoming events for Computer Software, use Computer Software search terms relating to Computer, Computer Software, Information Technology (IT), Information and Communication Technology (ICT) and the like.

Schedules for U.S. Government Organized or Sponsored Events
U.S. Government's Export Portal
http://www.export.gov/tradeevents/index.asp
http://www.export.gov/eac/trade_events.asp

Schedules for Commercially Organized Events
TSNN http://www.tsnn.com
ExpoWorldNet http://www.expoworld.net
Exhibition Center - Foreign Trade Online http://www.foreign-trade.com/exhibit.htm
BizTradeShows http://www.biztradeshows.com
TradeKey http://tradeshow.tradekey.com
4To40 http://4to40.com/fairs_and_exhibitions
CeBIT http://www.cebit.com
Storage Expo http://www.storage-expo.com

VI. Available Market Research

Computer Software

The reports listed below provide more detailed information about the market for the Computer Software in the listed countries, such as demand trends, the competition, business practices, distribution channels, promotional opportunities, and trade barriers. These market research reports are written by resident U.S. commercial staff in each country. All the reports are accessible on line, at no cost, from http://www.buyusainfo.net/adsearch.cfm?loadnav=no.

Argentina: Software Industry Overview 2007	Argentina	9/12/2007
Austria: Computer Software and Services	Austria	4/11/2007
Brazil, Chile, Mexico to Adopt Virtualization and SOA	Brazil	3/31/2008
Business Intelligence market in Latin America	Brazil	2/20/2008
Encryption Products - Canada	Canada	6/9/2008
Canada: Entertainment Software Market Overview	Canada	3/18/2008
China: Specialty Software Market	China	9/26/2008
The Palestinian Information and Communications Technologies Sector	Gaza/West Bank	7/14/2008
Germany: IT-Security Software	Germany	10/1/2008
Germany: Open Source Software	Germany	4/9/2008
Greece: ICT Market - Brief Overview	Greece	5/7/2008
Information Technologies	Greece	2/14/2007
Trends in the Hungarian IT market	Hungary	12/19/2008
Trends in the Hungarian IT market	Hungary	10/31/2007
Italy: ICT Trend	Italy	10/1/2008
Italy: ICT Security	Italy	8/1/2008
Trends in the ICT Market	Norway	2/2/2008
Trends in the ICT Market	Norway	1/23/2008
Pakistan Software Market	Pakistan	9/28/2007
Poland – Overview of the ICT Market	Poland	2/20/2007
Romania: IT Overview Sector	Romania	2/25/2008
Russia: Roadmap for Importing Encrypted Products	Russia	7/9/2008
E-Commerce Industry	South Korea	12/29/2008
Spain: Enterprise Content Management (ECM) Set for Growth	Spain	3/23/2007
Spain: Software in Spanish Public Administration	Spain	2/22/2007
Legal Software in Uruguay	Uruguay	4/9/2008
Venezuela Software Industry Overview	Venezuela	11/4/2008
The Information and Communications Technology Industry	Vietnam	11/28/2008

VII. APPENDIX
Products and Services in Computer Software, by Schedule B and NAICS Code

Products in Computer Software, by Schedule B Code:
HS 852340: Optical Media for the recording of sound/of other phenomena,
Schedule B - 8523402010: Prepackaged software for automatic data processing machines, of a kind sold at retail.

HS/Sch B Code	Description
8523	Discs, tapes, solid-state non-volatile storage devices, (con.) "smart cards" and other media for the recording of sound or of other phenomena, whether or not recorded, including matrices and masters for the production of discs, but excluding products of Chapter 37 (con.):
852340 8523401000	Optical media: Unrecorded optical media/Recorded optical media:
85234020 8523402010 8523402020	For reproducing phenomena other than sound or image Prepackaged software for automatic data processing machines, of a kind sold at retail Other
8523403000	For reproducing sound only
8523404000	Other: For reproducing representations of instructions, data, sound, and image, recorded in a machine readable binary form, and capable of being manipulated or providing interactivity to a user, by means of an automatic data processing machine; proprietary format recorded discs
8523405000	Other

Products and Services in Computer Software, by NAICS Code:
NAIC - 511210: SOFTWARE, NESOI.

This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction. Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers. These establishments may design, develop, and publish, or publish only.

NAICS Cross-References. Establishments primarily engaged in—

- Reselling packaged software--are classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade;
- Providing access to software for clients from a central host site--are classified in Industry 518210, Data Processing, Hosting, and Related Services;
- Designing software to meet the needs of specific users--are classified in U.S. Industry 541511, Custom Computer Programming Services; and
- Mass duplication of software--are classified in U.S. Industry 334611, Software Reproducing.

2002 NAICS	1987 SIC	Corresponding Index Entries
511210	7372	Applications software, computer, packaged
511210	7372	Computer software publishers, packaged
511210	7372	Computer software publishing and reproduction
511210	7372	Games, computer software, publishing
511210	7372	Operating systems software, computer, packaged
511210	7372	Packaged computer software publishers
511210	7372	Programming language and compiler software publishers, packaged
511210	7372	Publishers, packaged computer software
511210	7372	Software computer, packaged, publishers
511210	7372	Software publishers
511210	7372	Software publishers, packaged
511210	7372	Utility software, computer, packaged
334611	7372	CD-ROM, software, mass reproducing
334611	7372	Compact discs (i.e., CD-ROM), software, mass reproducing
334611	7372	Game cartridge software, mass reproducing
334611	7372	Games, computer software, mass reproducing
334611	7372	Prepackaged software, mass reproducing
334611	7372	Software, packaged, mass reproducing
423430	5045	Computer boards, loaded, merchant wholesalers
423430	5045	Computer peripheral equipment merchant wholesalers
423430	5045	Computer printers merchant wholesalers

2002 NAICS	1987 SIC	Corresponding Index Entries
423430	5045	Computer software, packaged, merchant wholesalers
423430	5045	Computers merchant wholesalers
423430	5045	Data processing machines, computer, merchant wholesalers
423430	5045	Disk drives, computer, merchant wholesalers
423430	5045	Game software merchant wholesalers
423430	5045	Loaded computer boards merchant wholesalers
423430	5045	Mother boards merchant wholesalers
423430	5045	Peripheral equipment, computer, merchant wholesalers
423430	5045	Printers, computer, merchant wholesalers
423430	5045	Software, computer, packaged, merchant wholesalers
443120	5734	Computer equipment stores
443120	5734	Computer stores
443120	5734	Software stores, computer
518210	7374	Application hosting