



THE SOFTWARE SERVICES INDUSTRY: THIRD QUARTER 2007

INSIDE THIS ISSUE	
EXECUTIVE SUMMARY	2
GLOBAL TRENDS	4
Africa & Middle East	5
Asia	6
Europe.....	9
Latin America.....	11
North America.....	12
KEY COMPETITIVE TRENDS	
Asia	14
Europe.....	16
Latin America.....	18
Middle East and Africa.....	19
North America.....	20
NEW PRODUCTS & NEW TECHNOLOGY	24
BUSINESS OPPORTUNITIES	25
FINANCIAL PERFORMANCE OF THE INDUSTRY:	30
ISSUES	34

A WORD FROM THE FOUNDER AND CEO

From the day SIS International was established over 24 years ago, we have strived to provide insightful research to some of the world's leading and most influential companies. Conducting research worldwide and developing intelligence networks in the majority of the fastest growing economies, SIS has earned a reputation as a powerful and nimble Market Intelligence firm.

In the current market, your competitor is no longer across the street, but rather more likely at the other side of the world. With the Internet and mass communications, corporations and management find themselves inundated with information. Undoubtedly, the key to making sound decisions in this market is receiving the right information at the right time. SIS International's dynamic services and resources directly cater to these needs, transforming data into valuable intelligence. This is part of our mission to make SIS your company's navigator in today's global economy.

Today, SIS International achieves its vision by developing new ways to understand and succeed in the global economy. With our International Market Research Division, our Answering Service and our Global Research Media and Publishing Division, we provide timely, unparalleled access to vital information and intelligence worldwide.

On our website, colleagues now have access to numerous other innovative products such as the Global Market Intelligence Tracking Service (GMITS). This service, the only one of its kind, analyzes and tracks industry developments on an unprecedented monthly basis for many industries.

SIS WorldwideWebinars links customers to our analysts through on-line seminars on key market issues. Our clients can also subscribe to the SIS Answering Service, whereby they submit business intelligence queries to have them answered by our analysts.

SIS International promises to continue its mission to innovate and further develop the most effective products and services for our clients. On behalf of everyone from SIS, I encourage you to explore our many products and see how we can help you.

Ruth Stanat
CEO & Founder, SIS International



SIS International Research, Inc. 11 E 22 Street Floor 2, New York, NY 10010
T: +1.212.505.6805 Fax: +1.212.505.0284 research@sisinternational.com www.sisinternational.com

STANDARD RESEARCH DISCLAIMER: SIS International Research, Inc. makes no representations about the accuracy or completeness of the information provided through this report. Users who base investment, strategic or marketing decisions on the information contained in our reports do so at their own risk.



SIS International, Navigate the Global Economy and GMITS are trademarks and service marks of SIS International, Inc. © 2000-2007 SIS International, Inc. All rights reserved.

EXECUTIVE SUMMARY

The information technology (IT) industry is undergoing rapid transformation in a broader scope that would encompass, by 2010, areas ranging from digital entertainment to bank payments. Microsoft has started earning money from advertising and gaming devices and sees these as growth areas. The IT industry today is seeking growth from various industries. Already IT companies have ventured into equipment finance, payments transfer, and digital entertainment devices. They sell everything from groceries to books, and with the convergence of mobile communications and the Internet, distance and accessibility are no longer constraints.

In the Q307, IT spending from financial firms did not decline as expected by analysts. Revenues increased as witnessed by IT service firms and packaged software firms from the financial services sector. If in the later quarters, the US economy gets pushed into a recession, companies will cut their IT spending, which will result in a shift towards lower cost alternatives. So for offshore IT service providers, US recession will result in increased revenues. The adoption of lower cost alternatives like offshore outsourcing, virtualization, open-source software adoption, and the SAAS model may increase exponentially if there is reduced spending by corporate companies. Some of these alternatives are currently being adopted already in large scale by small and medium enterprises. Even Fortune companies are slowly making a switch to these alternatives instead of costlier branded/packaged services since it allows them to leverage more resources at lesser cost without the burden of maintaining/upgrading the infrastructure/systems. Many companies have included these alternatives in their IT strategies to drive cost efficiencies.

Virtualization will reduce spending on servers. Growth will come from the new technology entrants, mostly from the small and medium business (SMB) sector, which is currently the hottest growth sector for all IT companies. Overall, large companies might see marginal or flat growth in their IT

spending on general enterprise software.

Spending is expected to increase on SOA architectures, regulatory compliance, application life-cycle management (ALM) and business process management (BPM) in order to align their business goals with IT. SMB companies would prefer the SaaS application service provider (SASP) model instead of spending on software installations and keeping software updated, since they are able to transfer the risk to the service provider. This should allow them to concentrate on their core business and also, with the flexibility of paying on demand, achieve good cost efficiencies. These cost efficiencies should result in profits that could ultimately result in more spending on IT. Developing economies are also seeing exponential personal computer (PC) penetration and the increase of PC density.

This scenario has the potential to bring many more new users whose software requirements can be tapped. Clearly, this is the market in which all IT software companies are targeting. We project that IT software companies will seek revenues more from the applications that can be ported on frameworks rather than charging for the framework itself, as the framework will become cheaper due to the rapid adoption of open-source frameworks. Currently, the leading software companies have released open-source versions of their software. The open-source movement has also reduced entry barriers for new entrants into the software industry. Revenues from software licensing are expected to go down gradually due to open source and software as a service (SaaS) gaining ground. All packaged software vendors today have their own SaaS versions.

In IT services, multivendor scenario, service-oriented architecture (SOA), and offshore outsourcing will become business strategies for companies. Revenue for offshore providers would come mostly from the emergence of the multivendor scenario in large companies. On a global basis, companies are expected to outsource more IT, and IT-enabled processes in the coming years to leverage the low-cost environment. Offshoring, which was earlier limited to IT application development and main-

tenance, IT-enabled services, service support, and knowledge process outsourcing, is now also gaining popularity slowly in pharma R&D. Many big pharma companies have set up their offshore captive centers or partnered with local pharma companies, their role being limited to support functions. However, now pharma companies are slowly involving offshore companies in the drug development cycle, which will mean a huge new opportunity for offshore companies. Already clinical trials done in developing countries are being accepted by the American FDA and European EMEA. IT service providers are either setting up subsidiaries to meet this growing need or partnering with existing clinical trials providers to offer joint services. Large multinational clinical trials companies are also setting up their own subsidiaries in offshore locations. Offshore IT service providers are expanding their penetration from the traditionally served fields into new exciting fields like biotechnology, aviation designing, space technologies, etc. European, North American, and Asian IT service providers are all opening near-shore development centers in Latin America and low-cost European countries. Though India is still the most popular destination, companies are exploring other low-cost countries and giving preference mainly to those countries that are in similar or nearby time zones. They are also expanding their presence in the Middle East region, which has one of the fastest growing IT adoption rate.

GLOBAL TRENDS

- Future business enablement will have to include initiatives across several dimensions which include using Web 2.0 technologies and SOA architecture
- Companies increasing outsourcing beyond routine ADM to include R&D and non-core business processes
- Eastern European, Latin American, and smaller Southeast Asian countries emerging as alternatives to India for IT services outsourcing
- Increased spending on regulatory compliance
- Non-domestic revenue growth for most IT service and IT software manufacturers
- Ongoing consolidation in enterprise software industry
- Pharma R&D and clinical trials management being outsourced to Asian Countries
- Shift towards on-demand/SAAS model instead of packaged model
- Software commoditization
- Thrust on SMB by both enterprise software companies and IT service providers
- Trend towards open source led by large enterprise manufacturers and driven by large Fortune companies adopting open-source software
- Virtualization, mashups, Web 2.0, rich Internet architecture (RIA), unified communications, green IT, business process management, metadata management, real world web and social networking software identified as 2008 trends by Gartner. The popularity of these trends has attracted even packaged enterprise vendors to release offerings. While some have acquired companies with these trends, others are developing products organically. Microsoft recently released the mashup tool, Popfly, built on Microsoft Silverlight. Companies are interacting more through Web 2.0, the common set of open standards, and SOA as business mechanisms.

GLOBAL TRENDS: AFRICA & MIDDLE EAST

IDC STUDY

IDC released recently the findings of a Microsoft-commissioned study on the impact of IT on “job creation, company formation, local IT spending, and tax revenues” in 82 countries and regions worldwide. In Africa, the concentration was on Kenya, Nigeria, and South Africa.

EMPLOYMENT

Seven million new jobs and 100,000 new businesses globally are expected to be driven by the global IT spending until 2011. Microsoft ecosystem is expected to be responsible for 42% of global IT employment at 15 million jobs. Globally, \$0.5 trillion USD in taxes is generated by the Microsoft ecosystem. In Middle East and Africa, where 1.2 million IT employees are present, 53% are associated with the Microsoft ecosystem. More than 9,000 new companies and 393,000 jobs are expected to be created until 2011 in the IT sector, contributing around \$34.4 billion USD to GDP and \$12.5 billion USD in new tax revenues.

NIGERIA

Nigeria is expected to generate 23,000 new jobs and 400 new companies in the IT sector until 2011, contributing \$1.1 billion USD to GDP and \$200 million USD in tax revenues. Forty-seven percent of the 84,000 IT sector professionals are associated with the Microsoft ecosystem in Nigeria. In Nigeria, for every dollar earned by Microsoft in 2007, companies in Microsoft ecosystem will earn \$11 USD. Nigeria is expected to have an IT spending growth rate of 15% until 2011, with a software growth rate at 14%. Nigeria is spending \$560 million USD in 2007 on IT, out of which \$56 million USD is on software. IDC states that for every dollar earned by Microsoft in 2007, companies in the Microsoft ecosystem in the Middle East and Africa will earn \$12 USD. MEA IT spending is expected to grow under 10% till 2011, with software grow-

ing at 11%. Out of the 2007 IT expenses of \$31 billion USD, \$5 billion USD was spent on software. Forty percent of IT employees in the MEA region are involved in installation and maintenance activities.

SOUTH AFRICA

South Africa has the largest IT market in Africa, projected by BMI to grow to \$8.3 billion USD in 2010. IT services account for approximately 40% of total IT expenditure. The SMB market accounts for 35% of spending on IT in the Middle East and Africa. In South Africa, the IT security market is the fastest growing market, with projected spending of \$400 million USD by 2010. Spending on packaged software is projected to increase to \$1.73 billion USD in 2011 from the current \$1.46 billion USD in 2006 per BMI-T of Africa. BMI also states, while application software accounted for the bulk of the packaged software market (44.6), this segment will account for 41.8% in 2011. ADM and system infrastructure software are going to increase their share by 2011 per BMI.

EGYPT

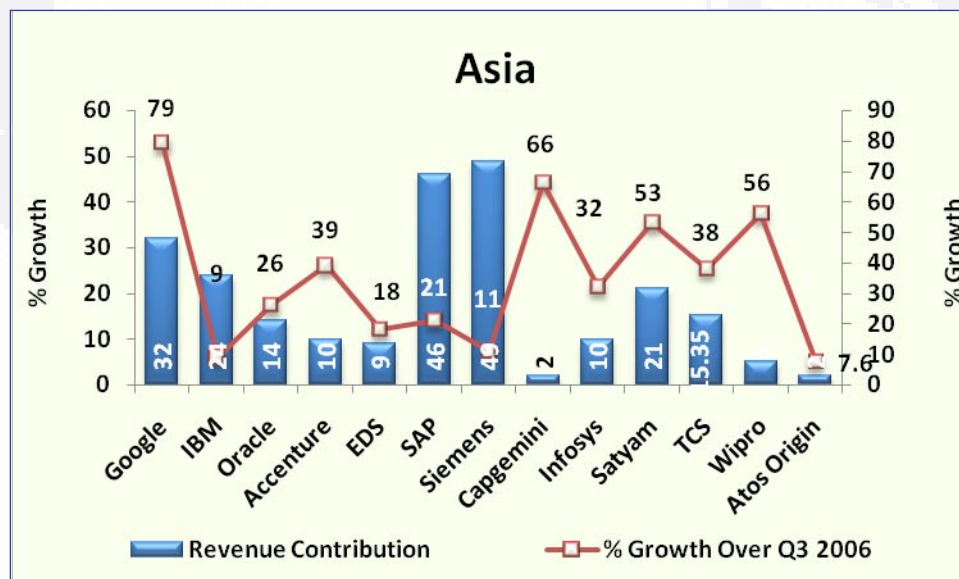
A recent Yankee Group report indicates that Egypt can become a major hub for IT outsourcing in the Middle East, since it has many positive advantages. Egypt is targeting \$1.1 billion USD by 2010.

DUBAI

Dubai Outsource Zone, a member of TECOM Investments and the first and only dedicated free zone for the outsourcing industry in the world, is looking forward to multiple growth potentials as spending on information technology, which expanded by over 19% to top \$6.8 billion USD in 2006 in the Gulf Cooperation Council alone, is set to grow by an additional 15% this year.

GLOBAL TRENDS: ASIA

Revenue Contribution & Growth Percentage of Software Companies From Asia in Q307



Source: Company Reports

SAP & Siemens derived the highest percentage of their revenues from Asia at 46% and 49% respectively. Cap-Gemini and Google though had the highest growth rate in Q307 revenues from Asia. Asian domestic vendors like Wipro and Infosys had a miniscule share from Asia. Infosys had a negative growth rate from Asia revenues. This shows that while foreign players are trying to increase their presence in Asia, Indian IT vendors still have not focused on their domestic markets.

XMG

Canadian-based IT research firm XMG has released a study that states that the BPO industry in the Philippines would grow at a CAGR of 62% to reach \$4.1 billion USD by 2007, accounting for 1.4% of the world market share. XMG also stated that BPO revenues in Malaysia would account for 1.2% of global BPO market at \$3.6 billion USD, reflecting a CAGR growth rate of 38% by the end of 2007.

XMG stated that BPO revenues in China would account for 4.4% of the global BPO market at \$13.1 billion USD by the end of 2007, reflecting a CAGR

growth rate of 47.9%. XMG also stated that BPO revenues in India would account for 11.5% of the global BPO market at \$34.1 billion USD by the end of 2007, reflecting a CAGR growth rate of 29.5%. India is expected to lead the offshore BPO space until 2010 and reach the 15% market share.

GRANT THORNTON

A recent Grant Thornton report cites that in the nine months to September 2007, 175 IT/ITES M&A/PE deals worth about \$3.59 billion USD have been signed, out of which \$2.54 billion USD have been M&A deals and \$1.05 billion USD worth of private equity deals. Grant Thornton says that Indian IT companies have invested more in acquiring foreign companies than foreign IT companies' investment in India. Outbound deals valued at \$2.03 billion USD were made in the nine months of 2007, compared to \$1.37 billion USD for all of 2006. Wipro's \$600 million USD Infocrossing acquisition and First Source's \$300 million USD Med Assist acquisition were prominent deals in 2007. North America accounted for 82% of the outbound deals. North American-based EDS had acquired Indian IT service player, Mphasis.

AMI-PARTNERS

A recent AMI Partners study has stated that SME spending in 2008 will register 15% growth over 2007 to reach \$13.6 billion USD across six ASEAN countries including Indonesia, Thailand, Malaysia, Singapore, the Philippines, and Vietnam. IT expenditure growth will be driven by the emergence of 66,000 new SME's in 2008. Fifty percent of the expenditure is expected to be on hardware. Vietnam, Indonesia, and the Philippines will have the fastest growing SME markets that will spend more on IT spending, particularly on networking and IT security. These three countries are expected to grow each by 17% compared to china's expected growth rate of 15% in 2008. IT spending in the other three ASEAN countries will have a slower growth rate.

EQUATERRA

EquaTerra in its Q307 Pulse survey has stated that the growth rate of financial and accounting outsourcing is more than the HR outsourcing growth rate in the EMEA region. It also states that buyers in the EMEA region achieved their outsourcing targets and that outsourcing has been witnessing strong growth rate across all industries and verticals. The study also stated that US buyers prefer an onshore model primarily because the wage difference has been falling due to the dollar decline and wage increase in the US. Indian IT service providers are also reported to be increasing their expertise beyond general ADM services.

RISING RUPEE & INCREASING WAGES

Rising rupee is a big concern for Indian IT service providers since nearly 80%-90% of their revenue comes from exports and for many Indian companies, primarily from the US. Though the central bank is adopting some interventionist measures, in the long term, the dollar is expected to slide further down.

Indian wages have increased 15% in 2007, resulting in an increased cost structure for IT service firms. Increasing wages have also made India a

low-cost country no more. Philippines, Poland, Malaysia, Romania, Bulgaria, and Hungary are now offering cost competition to India.

Indian Stock Market IT Index: The Indian IT Index has been falling steadily due to declining dollar



Source: ACEA

VISA CONSTRAINT

The US visa limit is still a big constraint for Indian IT service providers to expand abroad. Infosys, Wipro, and Microsoft were the largest users in 2006. The IT industry is asking for relaxation on limits or expansion of the H1B quota.

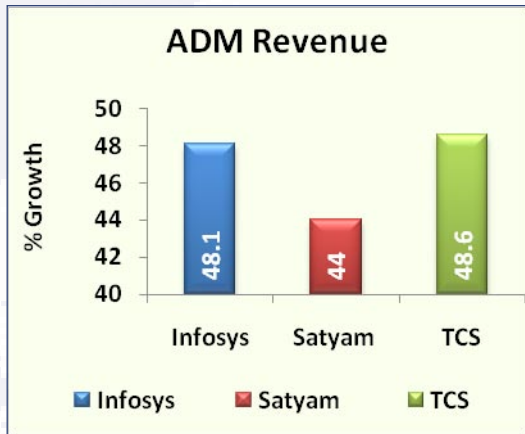
End of Tax Benefits: Indian IT companies are set to lose their tax benefits by 2009. Companies are lobbying the government to extend the tax benefits until 2020. This is critical for IT service providers since this will hit their bottom line hard. It will also make Indian IT service providers to curb wage increases and shift to lower cost locations where governments are offering significant tax benefits. It would be also hard for India to reach its export targets if the STPI scheme is not extended.

MULTINATIONAL COMPANIES (MNC) PENETRATION

MNC IT providers have increased their penetration in India. The top three multinationals have 100,000 professionals on their payroll. MNC players have been investing in R&D activities while the level of R&D activity from Indian players is less.

VALUE CHAIN

Most of the Indian IT service provider's revenue is still from application development and maintenance (ADM) though TCS for the first time in the Q307 registered more than 50% revenue from non-ADM revenues. They are trying to move up the value chain by inorganic growth, with the exception of Infosys trying to do so via organic growth.

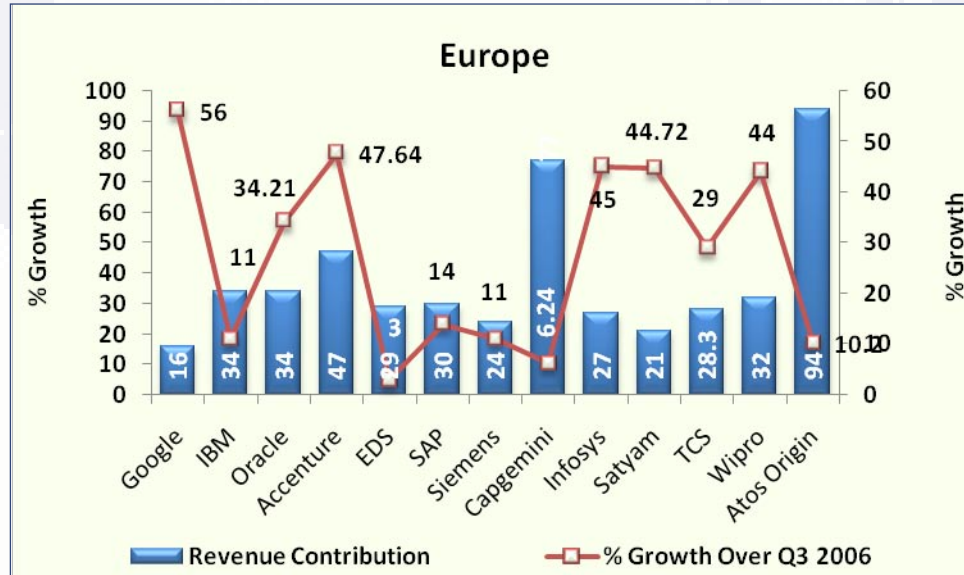


Source: Company Reports

Rising Growth in Indian Companies Opening On-Site and Near-Shore Centers: Taking into account the declining dollar and increased competition from MNC IT service providers, Indian IT service providers have increased development centers in on-site locations and have opened near-shore centers in Latin America, Africa, etc.

GLOBAL TRENDS: EUROPE

Revenue Contribution and Growth of IT Companies From Europe in Q307



Source: Company Reports

ATOS Origin and Cap-Gemini derived the highest percentage of their revenues from Europe at 94% and 62.4% respectively. Their growth rates though in this market in Q307 was negligible compared to 56% growth rate of Google and 44.72% growth rate of Satyam.

UK CONTRACTS

Forrester's recent report states that UK-based companies have signed 36% of the EUR5.4Bn IT service contracts signed in the Q207. This is an increase of EUR1Bn over second quarter of 2006. German- and Dutch-based companies have been awarded second place by Forrester, followed by strong growth witnessed in consulting firms based in the Nordic countries. Sixty-three percent of the contracts signed in second quarter of 2007 have been multiple service agreements with IT infrastructure outsourcing comprising 45% of the 84 contracts signed in the Q207.

Europe is projected to have an IT market size of \$406.5 billion USD in 2010. Western Europe will have normal growth rates of 5.3% and 6.3% in 2007 and 2008, but Central and Eastern Europe

countries will expand by 14.0% and 13.6% in 2007 and 2008 respectively. According to LogicaCMG, the European market for IT services will grow between 4%-6% in 2007.

EUROPEAN COMPANIES OFFSHORE INITIATIVES

According to a recent Grant Thornton report, Europe accounted for 59% of inbound deals into India. Inbound deals have decreased from \$0.69 billion USD in 2006 to \$0.16 billion USD in the nine months of 2007. European IT service providers like Cap Gemini have been increasing their presence in India through acquisitions. CAP Gemini's acquisition of Kanbay has given it a strong 22% off-shore presence (17,473 people, targeting 20,000 by the Q108) out of the 80,000 employees. Cap Gemini is now developing a \$100Mn facility in Chennai, India to house 10,000 engineers. Cap Gemini plans to have around 40,000 employees in its India offices by 2010. Cap Gemini also recorded the highest growth rate of 89% in Asia-Pacific revenue in the first half of 2007 due to the Indigo and Kanbay acquisition, followed by 31% growth in North America in the first half of 2007.

LogicaCMG has 4,000 employees in India and 300 in the Philippines. Atos Origin has around 3,000 employees in the Asia-Pacific region. In India, Atos Origin has 800 employees, but is planning to expand to 3,000-4,000 employees by 2009.

THRUST ON EMERGING MARKETS

SAP recorded a 9% increase in its Q307 revenues over the Q306 with net income growth of 10%. Asia-Pacific, excluding Japan, recorded 31% growth in the Q307 over the Q306, while the rest of EMEA, excluding Germany, recorded 22% growth.

CENTRAL AND EASTERN EUROPE

Central and Eastern Europe has established itself as a near-shore alternative for clients in the US and Western Europe. The marginal gap in time difference and cultural proximity make these locations attractive to Western firms who want to outsource. Countries such as the Ukraine, Russia, Poland, Czech, Hungary, and Belarus are attracting interest from IT markets.

GLOBAL TRENDS: LATIN AMERICA

ATTRACTIVE NEAR-SHORE LOCATION

Latin America has emerged as an attractive near-shore region for both Indian and MNC IT service companies, because the dollar decline and increasing wages in India is reducing the cost gap between developed and developing countries. In the Q307, several IT service companies have opened their IT near-shore development centers in Latin America to cater to their American and European clientele. The domestic IT industry is consolidating with a few large players emerging out of the consolidation. Infosys, Wipro, Hexaware, Genpact, CDC, and TCS all have reiterated their commitment to Latin America by expanding their operations in Mexico by opening more development centers beyond their existing centers in the Q307. TCS already has over 5,000 employees in Latin America.

SAP is targeting around 10,000 clients from Latin America by 2010 and around 1,000 business-by-design clients out of that. SAP is targeting SME's in Latin America for its 2009 launch of business by design, which will initially be launched in Mexico and Brazil. Software as a service is already an accepted trend in Latin America according to SAP based on Google Apps's adoption. SAP expects more demand to come for SAAS applications in 2008 and 2009. Latin America accounted for 23% of financial services sales for SAP in the first half of 2007.

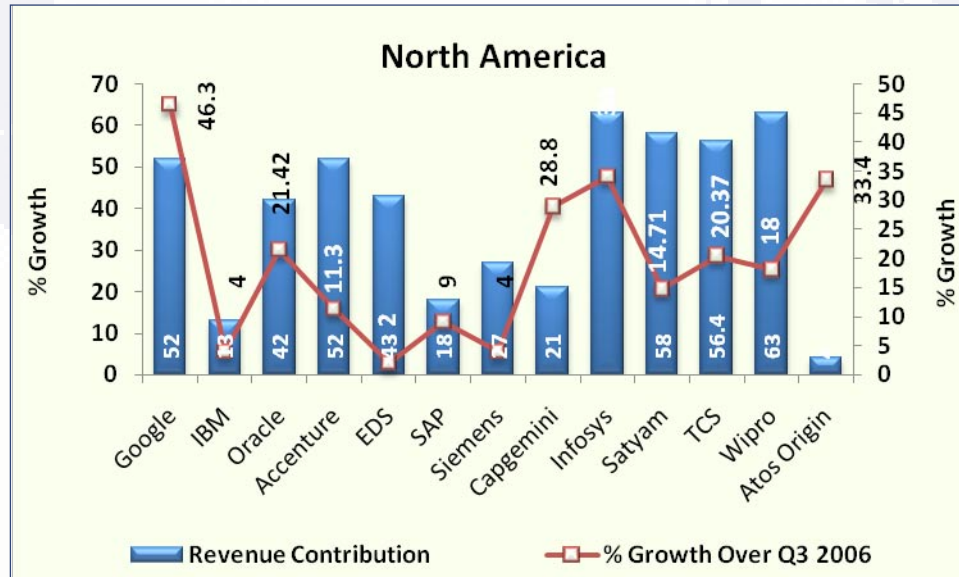
Latin America is projecting a growth of 12% in the coming years for IT spending. Overall, the Latin American IT services market is approximately \$20-\$30 billion USD. Brazil, Mexico, Argentina, Chile, and Columbia account for roughly 75% of the IT services spending. Mexico is looking at \$5 billion USD investments in the IT sector in Mexico in the coming years.

LATIN AMERICA IT SECURITY

According to IDC, the IT security software market in Latin America is expected to grow by 23% to \$375 million USD in 2007. The market grew 19.6% in the first half of 2007 to \$169 million USD. IDC expects market to reach \$539 million USD in 2009. Regulatory and standards compliance is driving growth in the security software market, led by financial services companies and followed by telecom companies. IDC states that Brazil has the largest demand in Latin America for IT security followed by Mexico, Argentina, and Chile.

GLOBAL TRENDS: NORTH AMERICA

Revenue Contribution and Growth of IT Companies From North America



Source: Company Reports

All Indian companies and Accenture recorded the highest contribution from North America. Google is showing strong growth rate in this market among all other players in the Q307.

ENTERPRISE SOFTWARE

The enterprise software market is undergoing perhaps the most crucial phase of consolidation with Oracle's acquisition of Hyperion and bid for BEA, SAP's acquisition of Business Objects, and IBM's acquisition of Cognos. The thrust in the enterprise software market is to grow the number of SME accounts since the IT spending growth rate among SME's is higher than the IT spending growth rate of Fortune companies. Companies both large and small are embracing the open-source movement, gradually shifting to the latest trends like virtualization, green IT, and the SAAS model.

THRUST ON SMALL AND MEDIUM ENTERPRISES

All enterprise software and IT service providers have increased focus on the SME markets. Pack-

aged software vendors have released special versions focusing on the SME market alone. In the Q307, packaged vendors increased sales and marketing support to their partner network since the partner network has better access to the SME market. They also revamped their organization structure to create special divisions focused on the SME market. Since the SME market prefers the SAAS model, packaged vendors have developed SAAS versions of their software and made them available to the open market.

TREND TOWARDS OPEN SOURCE

With both large and SME businesses supporting the open-source movement, packaged vendors in the Q307 have come up with more open-source versions of their software. They have also extended support to open-source platforms by making available tools and API's for developers to develop more robust applications.

OTHER TRENDS

American enterprise software vendors are witnessing strong growth in international markets rev-

enue. They are also increasing their scope beyond traditional software to Web 2.0 Applications, wireless space, consumer entertainment, and mobile entertainment markets. Many vendors are utilizing their free cash to repurchase their stock. Enterprise vendors are also gearing up for expansion in the wireless space. According to IDC, Microsoft's Windows Mobile is expected to become the fastest-growing mobile operating system until 2012. Both Microsoft and Google are discussing with carriers to carry their platforms on the carriers' phones.

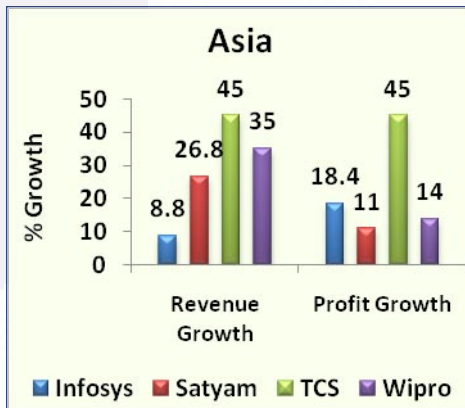
SOFTWARE CONTRIBUTION TO GDP

The information processing and equipment sector overall contributed \$647.1 billion USD to real GDP in the Q307, reflecting growth when compared with Q306 contribution at \$602 billion USD.

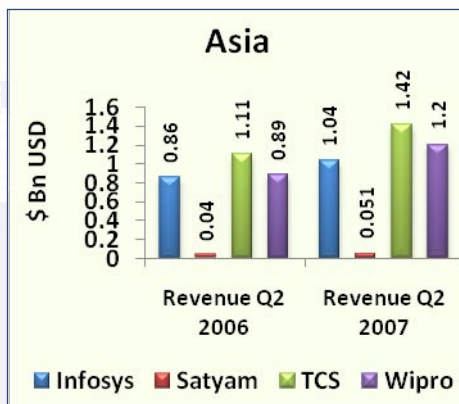
The software sector contributed \$229.6 billion USD to real GDP in the Q307, reflecting growth compared to the Q306 contribution of \$213.8 billion USD.

KEY COMPETITIVE TRENDS: ASIA

Revenue and Profit Growth Q307 YOY



Revenue Q206 vs. Q207



Source: Company Reports

(Asian Q207 corresponds to the Western Q307)

INFOSYS

Growing Clientele Size and Repeat Business: Infosys has reported a strong 19% growth in revenues with net income growth at 18%. Infosys has 95% repeat business in fiscal year 2007. It has been steadily increasing the size of its clientele. It has three 100+ million clients today and 13 clients billing between \$50-\$100 million USD. Infosys has been steadily growing its share of the client format and has witnessed largely organic growth with very few acquisitions.

Realignment of Organization Structure: Infosys has realigned its business units to form six core

industry units and five horizontal business units. It has created a new unit to focus on growth markets naming, it the New Growth Engines Unit which focuses on Australia, China, Japan, Middle East, Canada, South America, and Latin America. A domestic-focused unit, India Business Unit, has also been formed. It has also consolidated sourcing, pre-sales, and marketing activities under Corporate Sales and Marketing.

Branding: Infosys has been positioned in the leader's quadrant in the Gartner "Magic Quadrant for European Offshore Applications Services 2007."

WIPRO

Strong Revenue Growth: Wipro has reported a strong 35% growth in revenues with net income growth at 18%. It has been steadily increasing the size of its clientele. It has nine clients billing above \$50 million USD. Wipro recorded 72% revenue growth from its India, Middle East, and Asia-Pacific business with net income growth of 48%. It also opened its development center in Atlanta and near-shore development center in Mexico. It has very low exposure to a single client since its largest client contributes to only 2.9% of its revenue.

Inorganic Acquisition: Wipro has been highly successful in integrating its many acquisitions over the years. Wipro is focusing on SOA, BPO, consulting, etc., targeting larger deals. Wipro's acquisition of Infocrossing also makes it the most suited Indian vendor to handle infrastructure management deals. Wipro has also recently signed with Nokia Siemens to provide radio access R&D activities currently performed by Nokia. Wipro is alliancing with Cisco to develop IT infrastructure solutions, which will leverage Cisco's networking solutions with Wipro's infrastructure and managed services portfolio. Wipro has also opened a Cisco solution center at its Bangalore campus, which will showcase Cisco services and solutions. The focus will be on India, Middle East, and Africa regions. This will help Wipro bid for more infrastructure outsourcing projects, with Cisco being the preferred networking partner.

Entry Into Defense Contract Manufacturing: Wipro in partnership with Lockheed Martin has opened its Network Centric Operations Center in Gurgaon.

China: Tianfu Software Park in Chengdu will house Wipro's third R&D center in China, the other two being at Beijing and Shanghai. With an initial target of 150 employees, the center hopes to hire 300 professionals by 2010.

Branding: In direct competition to Infosys's WIBTA awards, Wipro has launched a global award to recognize best practices in co-innovation and global sourcing. This award will be presented in collaboration with the IT Association of America, International Association of Outsourcing Professionals, and Forbes.com. It has also launched the Applied Innovation Council, a thought forum comprising mostly of Wipro customers, industry experts, and thought leaders. Wipro expanded its relationship with SAP by becoming a SAP global services partner. Forrester Research has positioned Wipro as a Strong Performer in "The Forrester Wave: Security Consulting, third quarter of 2007." Bank Technology News in its August 2007 magazine has named Wipro as one of the top 10 technology companies to watch. Gartner's recently semiconductor IP survey for Bluetooth and Wireless LAN IP has ranked Wipro-New-Logic as the market leader based on its 61% market share. Gartner also ranked Wipro-New-Logic as the number one global supplier of Bluetooth because of its Design IP revenue based on its 2006 market share of 56%.

SATYAM

Satyam Computers registered a 28% growth in net profit and 31.42% growth in Turnover in the Q307 compared to the Q306. Satyam is trying to buy out investor's stake in its BPO arm, Nipuna. It has purchased Olympus Capital's stake and is discussing with Intel Capital for the remaining 4% stake buyout. Nipuna has been estimated at \$184 million USD. It also signed a \$1 billion USD 10-year IT outsourcing deal with Fujitsu to provide IT services to Reuters. Satyam will offer Reuters IT services through Fujitsu.

Inorganic Growth: Satyam Computers is planning to acquire more IT companies and has set aside \$1 billion USD. Satyam currently is negotiating eight \$20-\$25 million USD engineering deals. Satyam Computers acquired Nitor Global Solutions, an IT infrastructure management company for \$5.5 million USD. This acquisition will help Satyam bid for infrastructure management services in Europe. UK-based Nitor had revenues of \$3.3 million USD.

TCS

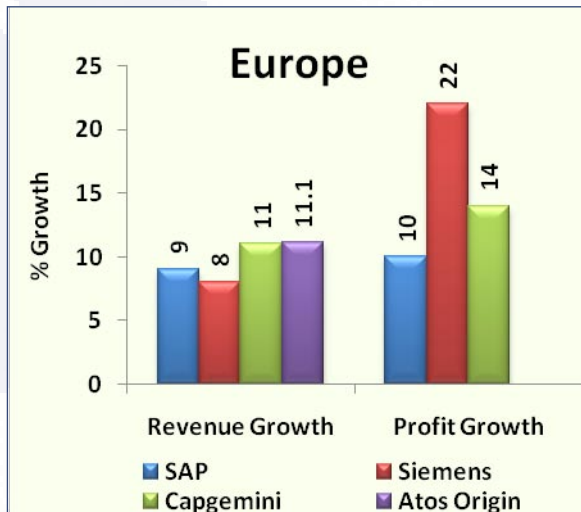
Strong Revenue Growth: TCS has reported strong 27% growth in revenues with net income growth at 26%. It has 18 clients billing above \$50 million USD and six clients billing above \$100 million USD. TCS recorded strong growth in the Middle-East, Europe, UK, and APAC regions. It has increased its revenue from the transportation practice with significant client additions. Telecom and manufacturing have been growing based on ramp-ups. For the first time, non-ADM services contributed more than 50% of TCS revenues. BPO has been registering strong double digit growth and has 8,552 employees currently. Its top client contribution is 7% in the current quarter. TCS signed a \$1.2 billion USD 10-year contract with Nielsen for IT services. TCS is planning to bid on more domestic projects, keeping in view the rupee appreciation. TCS is planning to open two development centers in the US, one of them being in Cincinnati. TCS became the first Indian IT company to employ more than 100,000 employees.

Credit Rating: S&P has assigned TCS a corporate credit rating of "BBB" with a positive outlook. S&P has said due to the large component of its employees being in India, a higher rating is not possible for TCS. It has very low exposure to a single client since its largest client contributes to only 2.9% of its revenue.

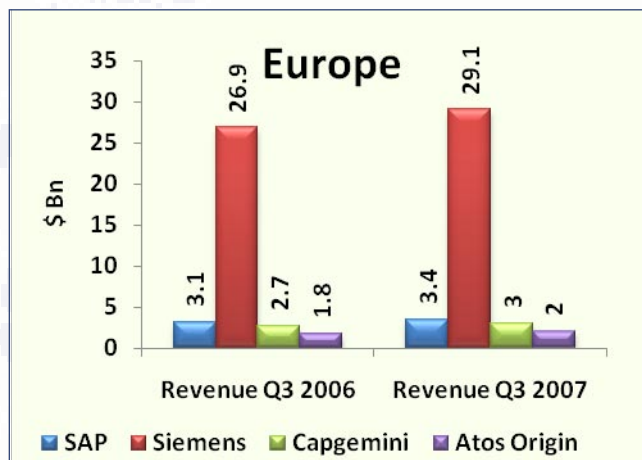
Strong Hedging Strategy: It has \$2.6 billion USD in hedging at the end of September 2007, but it is preparing itself for the 35 rs to dollar scenario.

KEY COMPETITIVE TRENDS: EUROPE

Revenue and Profit Growth Q307



Revenue Q306 vs. Q307



Source: Company Reports

CAP GEMINI

Revenues: Cap Gemini reported 6.2% (constant rates) increase in third quarter revenues at \$3 billion USD. Nine months of revenues increased by 9.7%. Cap Gemini is investing \$100 million USD in opening a new global services center at Chennai, India to be operational by 2009.

Offshore Presence: Cap Gemini is concentrating on improving its domain expertise in financial services payment, Telco open-source services, and

billing systems for retail and automotive. It is also focusing on improving its revenues from business application consulting.

Offering Services on Google Apps: Cap Gemini has become the first IT service provider to offer to its clientele an alternative to Microsoft Office in Google Apps. Cap Gemini intends to sell and provide support for Google Apps and also help its clientele integrate these applications. This move can have far-reaching implications if corporations start accepting this as a viable alternative to Microsoft. It could cause problems for Microsoft. Procter & Gamble and General Electric have already started to use Google Apps. Adopting Google Apps will help customers reduce their software costs, upgrade costs, server costs, etc., since Google Apps is available on-line.

Branding: According to the Gartner August report, Cap Gemini is the market leader in IT services in the utilities sector in Western Europe. Cap Gemini has been named in the Information Week 500 and named as a “market leader” in CRM Magazine.

SAP

Thrust on SME: Increasing its thrust on SME business, SAP is now providing its small-business-focused partners access to streamlined global solution partner agreements under its SAP Partner-Edge program. This has made available enhanced marketing tools available to the small businesses.

Inorganic Acquisition: SAP recently bought business intelligence (BI) software leader Business Objects (BO) for \$6.8 billion USD. Business Objects recently announced its preliminary Q307 results, stating revenues to be between \$366 million USD and \$370 million USD. SAP’s competitor, Oracle, had acquired BO’s rival, Hyperion, whose customers were primarily on SAP, but post acquisition have shifted to Oracle. This might be one reason why SAP bought BO. SAP has traditionally made smaller acquisitions when compared to its primary rival, Oracle. This acquisition might also help SAP quickly reach its target of 100,000

customers. To increase penetration in the business process management space, SAP has acquired privately held YASU Technologies whose solutions will be embedded into SAP's NetWeaver platform.

Strong Revenue Growth: According to SAP, SAP has increased its market share to 27% compared to 16% of Oracle in the enterprise application software market. Gartner reported that SAP's NetWeaver business intelligence market share grew to 8.2%. SAP has 13,000 production SAP NetWeaver BI implementations globally. SAP is targeting \$70 billion USD revenue by 2010. SAP expects its customer base to be around 100,000 and 40%-45% of revenue to come from SME businesses in 2010.

Share Buyback: SAP has purchased 6.2 million shares at an average price of €40.30 in the Q307 and intends to invest similar amount in the Q407 to repurchase shares.

ATOS ORIGIN

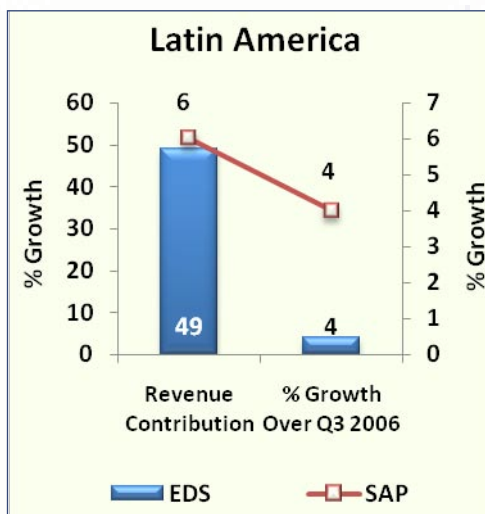
Atos Origin reported 11.1% increase in third quarter revenues to reach \$2 billion USD. Revenues from the consulting line fell 18.5%, system integration revenues increased 5% and managed operations revenues grew 20.2%. Atos Origin had 2,700 off-shore employees, including 2,100 in India.

TIETOENATOR

Strong Revenue Growth: Finnish IT services provider TietoEnator has increased its revenue 10% in the Q307 over the Q306 to reach \$591 million USD. Net Profit declined to \$16 million USD in the Q307 compared to \$29.4 million USD in the Q306. TietoEnator faced higher personnel costs as well as higher product development costs and failing projects. For the year up to September 2007, its sales reached \$1.87 billion USD when compared to \$1.74 billion USD last year up to September 2006. TietoEnator had 15,823 employees at the end of the Q307. It is trying to divest loss-making divisions and expand penetration in the Nordic markets. It has recently set up an IT services center in St. Petersburg, Russia in the Q307.

KEY COMPETITIVE TRENDS: LATIN AMERICA

Revenue Contribution & Growth



Source: Company Reports

HEXWARE TECHNOLOGIES

India-based Hexaware has opened its second delivery center at Saltillo, Mexico to boost its Latin American operations. Hexaware will use this center to offer near-shore IT services to US and Canadian clients. Hexaware expects to hire around 1,000 employees in Mexico by 2010. Earlier in the quarter, leading IT companies like TCS, Infosys, and Wipro had expanded their operations in Latin America.

INDRA SISTEMAS

Indra Sistemas has acquired Australian-based Interscan Navigations Systems (INS). This acquisition will boost Indra's presence in the transportation and air traffic control sectors in the Asia-Pacific region. Indra will be installing advanced simulation technology for 5 AV-8B Harrier simulators of the US Navy as part of a \$23 million USD contract lasting until 2011.

Indra has been awarded a \$2.3 million USD contract from servicio de Salud of Castilla-La Mancha (SESCAM) for implementation of the Ykonos digital-imaging project in select hospitals. This win has made Indra the technology partner

of preference for SESCAM. Indra has become the leading company in imaging diagnostic management in Europe. Indra is expecting 2007 revenues to exceed € 2.150 million, 33% of it coming from the international market. Indra has 22,000 employees and development experience in more than 80 countries.

TECNOCOM

Tecnocom is planning to increase its capital by EUR46.6 million to finance the acquisition of Iberian operations of Getronics. Tecnocom had in June offered to buy Getronics' Spain and Portugal operations in a \$126 million USD deal, in which 60% payment would be in cash and the rest would be in shares or cash. In case of shares, Getronics will get 10% and a board seat. The combined company would become the third largest provider in the Iberian market.

KEY COMPETITIVE TRENDS: MIDDLE EAST AND AFRICA

HEWLETT PACKARD

Hewlett Packard is aiming to expand its operations in the Middle East region. Hewlett Packard has acquired Atos Origin Middle East (AOME) which has 450 employees. HP will to expand its utilities and government practice, enhance SAP capabilities in the region, and expand its presence to Libya and Qatar.

IVISION TECHNOLOGY (IVT)

In UAE, IVT is setting up a new state-of-the-art contact center in Abu Dhabi. IVT specializes in IT security and contact center solutions. It currently administers outbound calls for Middle East companies. IVT has equipped the new center with the latest contact center technologies from European-based Altitude Software.

EMIRATES COMPUTERS

Emirates Computers subsidiary, e-Enterprises (e2), and Alesayi Communications in Saudi Arabia have allied with Sun Microsystems Middle East and North Africa. They will sell and implement Sun's solutions and services in the largest

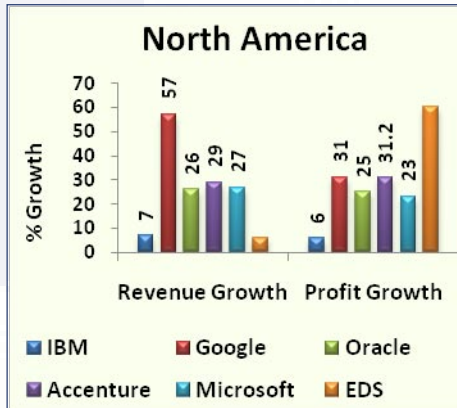
ICT market in Middle East, Saudi Arabia. For Sun, Emirates Computers' strong brand and Alesayi's local presence are good enablers for this alliance. e-Enterprises (e2) was formed recently in partnership with Alesayi Communications with focus on four key software areas, communications and networking, software solutions, system integration, and IT security. It caters to the government, hospitality, real estate, telecom, transportation, and utility industries. e-Enterprises has offices in Riyadh, Jeddah and Al Khobar in Saudi Arabia. Emirates Computers is targeting revenue of \$120 million USD in its first year of operations.

TCS

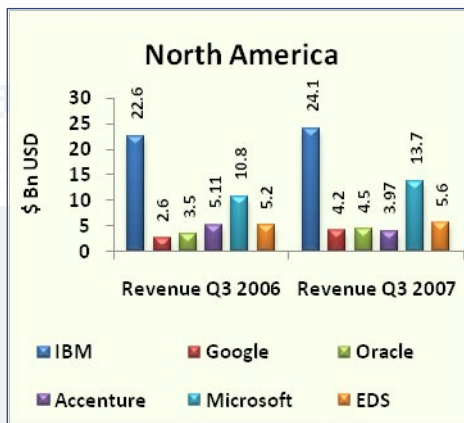
In order to strengthen its penetration in Africa, TCS is launching a new subsidiary, TCS South Africa. The subsidiary will have equity participation from BEE groups in South Africa. It will help increase the skill levels of IT professionals in South Africa. TCS sees South Africa as the gateway to Southern and Central Africa. TCS has a near-shore center in Johannesburg, which supports TCS's banking product implementations in South Africa.

KEY COMPETITIVE TRENDS: NORTH AMERICA

Revenue and Profit Growth Q3-2007 YOY



Revenue Q3 2006 Vs Q32007



Source: Company Reports

MICROSOFT

Results Review: Microsoft registered a strong Q307 revenue driven by increased Xbox console and game sales, Windows Vista licensing and the 2007 Microsoft Office system, currency exchange rates, and increased Windows server and SQL server revenue. This growth was driven by strength in OEM and commercial channels of Microsoft. Legalization efforts in Russia, China and other emerging markets also contributed to growth in sales of the Windows operating system licenses. Operating income growth was offset by increased product costs, sales, and marketing costs.

Focus on Consumer Entertainment Market: Microsoft sales revenue from Xbox and PC game

increased 148%, driven by 1.8 million Xbox 360 console sales in the Q307 and record Halo 3 sales. Halo 3 generated \$330 million USD in revenue in the Q307. The entertainment division recorded 91% growth in sales. Microsoft in October also released the Arcade Xbox 360 console which, at a price of \$279.99, comes preloaded with five family-friendly games. Microsoft is focusing on increasing its catalog of family fun content to be made available on demand. MSN Originals is making available free stories and contents on-line to consumers. These stories are supported by advertising.

Focus on Hispanics: Microsoft in October 2007 recently released a Zune Music player through Walmart with a preloaded Wisin y Yandel's 19-track new album. This helps Microsoft connect with Latinos which has been a key focus area for Microsoft. Microsoft also introduced in this quarter several software packages for US-based Hispanic small and medium enterprises. It also introduced MS Office Spanish language package for US retailers and it is introducing MSN Latino in October.

Internet Services Focus: Microsoft had acquired digital marketing company, aQuantive for \$5.9 billion USD in cash in the Q307. Microsoft expects this acquisition to help it build the next-generation on-line advertising solutions in newer emerging areas like wireless, Internet TV, video on demand, etc., and compete with Google. Microsoft also acquired screen tonic in this quarter and is looking at more acquisitions in this space.

Expansion in the Social Networking Space: Microsoft and Facebook have expanded their advertising partnership further into an alliance, wherein Microsoft will take a \$240 million USD equity stake in Facebook. In return, Microsoft will become the exclusive third-party advertising platform partner for Facebook. Microsoft can also sell Facebook advertising internationally, apart from the US alone. Microsoft is already the exclusive provider of standard banner advertising on Facebook using its Microsoft adCenter platform until 2011.

Focus on SME Market: Microsoft's efforts in streamlining software and licensing for Microsoft Business Solutions (MBS) have been positively received by the market. Forrester Research has placed Microsoft Business Solutions as a leader in the small and medium business (SMB) sector for enterprise applications in its recent Forrester Wave evaluation—The Forrester Wave: Enterprise Apps Software Licensing and Pricing, Q407, October 2007.

Repurchase of Stock: Microsoft repurchased \$2.3 billion USD of common stock in cash and paid \$938 million USD in dividends during the Q307. Microsoft still has \$12.8 billion USD remaining of the \$36.2 billion USD approved repurchase amount with a timeframe up to June 30, 2011.

Expansion in the Wireless Space: According to IDC, Microsoft's Windows Mobile is expected to become the fastest-growing mobile operating system up to 2012. Microsoft is also introducing in 2008 a dedicated mobile device management server (System Center Mobile Device Manager 2008) to complement Windows Mobile OS. AT&T and Sprint will support the new server from next year. The BlackJack II available exclusively through AT&T can be updated to support Mobile Device Manager. Other companies and partners will start supporting the server from the Q208. Microsoft is offering a GPS-based search facility on Sprint phones, both voice and live search. This facility will integrate Sprint's GPS capabilities with Microsoft's search capabilities.

GOOGLE

Positive Revenue Growth: Google recorded 57% growth in the Q307 driven by a 68% growth in Google properties revenues and 40% increase in network revenues. International markets contributed to 48% or \$2 billion USD in Q3 revenue. Google properties account for 65% of revenues while Google network accounts for 34% of revenues. UK registered \$661 million USD revenue for Google.

Inorganic Acquisitions in the On-line Adspace and Google Enterprise Offerings Being Boosted: Google continues to focus on its search, ads, and

applications strategy. It is enhancing its enterprise applications both organically and through integration of its acquisitions such as Postini. It is trying to extend its software reach to wireless platforms as well. Google has released a new feature of Google Maps that enables users to add third-party information directly on Google Maps.

Print-Ads Program: Nielsen and Google are alliancing to leverage Nielsen's TV audience measurement for the Google TV Ads advertising platform. Unlike other measurement channels, Google TV Ads provides second-by-second set-top-box data for advertisers in ad performance measurement. Nielsen's ratings panel will add the audience demographic composition to the offering, thus providing advertisers intelligent data for strategic decisions.

Thrust on Wireless Applications and Google Phone: Like Microsoft, Google is talking with carriers to offer its software on the carriers' phones. Google Phone can arrive by mid-2008 if Google can sign up a carrier. Google's Linux-based operating system would compete with the Windows mobile operating system.

Google Analytics Enhancements: Google has added site search reporting and event tracking features to its Google Analytics web service. Site search can be done across categories and track search patterns. Event tracking enables site users to measure visitor engagement with the site's interactive elements.

IBM

Positive Revenue Growth: IBM recorded 7% growth in revenue and 6% growth in income in the Q307. Globalization has helped IBM increase its revenue with EMEA region (Europe/Middle East/Africa) registering 11% growth while Asia-Pacific and North America registered 9% and 4% growth respectively. IBM also has a balanced mix of software, hardware and services. Services contributed 57% of Q307 revenues and for the nine months ended September 2007, while software and systems contributed 20% each both in the Q307 and for the nine months ended September 2007. Technology services and business services grew 13% and 16% respectively. Systems and technology revenue decreased 10% due to weak September server sales,



while the software segment driven by middleware grew 7%. IBM India registered the highest growth rate of 30% at constant currency in the Q307 in comparison with the Q306.

Acquisition of Cognos: IBM is purchasing BI software vendor Cognos for \$5 billion USD in an all-cash deal. This will help IBM entrench itself deeper in the enterprise application software sector. It will also strengthen its position in the service-oriented architecture (SOA) market worldwide, business intelligence (BI), and performance management sector. Cognos has been an IBM partner for 15 years. Cognos' integration with IBM's web sphere middleware and DB2 database will help Cognos dynamically observe changes.

Thrust on SMB and Virtualization: Currently 70% of IBM's client engagements is coming from business partners. SMB has been mentioned as the biggest IT growth opportunity by IBM's CEO for the past couple of years. IBM business partners contribute 50% of all SMB revenue for IBM. IBM realigned its sales organization and created a sales organization for SME and large businesses separately.

IT Security Thrust: IBM is spending \$1.5 billion USD on revamping its security division. It is targeting the business side of the \$100 billion USD IT security market. IBM currently has 3,500 security consultants and several security products. IBM is planning a business-IT alignment consulting offering in IT security.

Push Towards Open-Source Software: IBM has partnered with Novell to support the open-source movement. It has released open-source versions of its software in support of the movement.

ORACLE

Strong Revenue Growth: Oracle reported the strongest new software license growth at 35% at \$1.089 billion USD. New license sales grew 65% in the current quarter. The EMEA region contributing to 34% of Oracle's revenues grew by 26%, the Americas region contributing to 52% of revenues grew by 20%, and Asia-Pacific contributing to 14% revenue grew by 22%. Oracle's share of services versus software has remained nearly con-

stant at 24:76. Oracle has launched a bid for taking over BEA. In the quarter, Oracle acquired Agile, Interlace Systems, Netsure Telecom Limited, and Bridgestream.

Increased Thrust on SME Businesses: Oracle has been pushing strongly in the SME business. Oracle partners are delivering Oracle Accelerate Solutions customized for several industries in the SME segment. Oracle is allowing solution providers to acquire products from authorized distributors instead of Oracle directly. This will allow solution providers to protect their consumer base and build trust in the solution providers as well. Oracle has made this move to intensify its share of the SMB market for which it needs the support of its business partners. As part of this thrust, Oracle also opened two new centers in India—Oracle Asia Research and Development Center (OARDC) and Partner Solution Center (PSC). These centers will focus on developing solutions for the Indian market. In Asia-Pacific, Oracle and HP are also offering jointly a database-server bundle targeting mid-size businesses. This is part of Oracle's Accelerate program, which focuses on packaging applications for SMB customers.

Push Towards the SaaS Model: Oracle is making available its software in the SaaS model since it is the fastest-growing medium for adopting software. It recently made available its CRM on the Webex platform.

ACCENTURE

The Accenture board has approved \$3.0 billion USD additional share repurchases. It recently acquired Gestalt, which is a private defense-focused consulting firm.

YAHOO

Yahoo registered 12% YOY growth in the Q307 compared to the Q306. Yahoo property sites registered 24% growth while affiliate sites registered a 1% decline in the Q307. US revenue grew 15% while international revenue grew 13%. In Asian markets, Yahoo Korea registered the strongest growth. Yahoo has 12% market share in on-line search in China compared to 21% of Google, but Yahoo has a 40% stake in China's Alibaba.com, a



premier e-commerce portal. Yahoo is also planning to partner with Asian carriers to increase its mobile search consumer base. Yahoo is increasing its network of publishers.

Inorganic Acquisition: Yahoo's Zimbra has been chosen by more than 200 educational institutions in the previous year and has more than 600,000 mailboxes at academic institutions in around 15+ countries. Yahoo has acquired e-mail and collaboration software provider, Zimbra, for \$350 million USD to extend its presence in the large ISP sector where Zimbra has a hold as well to increase its capabilities in the e-mail space. Yahoo Mail has 250 million users globally. Yahoo will also be acquiring one of the largest global on-line ad networks, Blue Lithium, for \$300 million USD in cash. Blue Lithium is estimated to have 145 million unique visitors every month and is the fifth largest ad network in the US.

EDS

EDS is acquiring 93% stake in Saber for \$420 million USD in cash with the current Saber CEO retaining the remaining 7% stake. The Saber acquisition will further solidify EDS's presence in the government sector. EDS reported a 6% increase in third quarter revenues at \$5.63 billion USD and has projected full-year revenues to be in between \$22-\$22.5 billion USD. Net profits increased 80% to \$225 million USD in the Q307. EDS signed \$5.7 billion USD worth of contracts in this quarter.

Gartner has assigned EDS a strong positive rating for its data center outsourcing offering. EDS manages over 100 data centers worldwide. EDS has launched a new testing practice building on the strengths of its 3,000 security consultants, mostly obtained through its multiple acquisitions like RelQ, Mphasis, etc.

FUJITSU

Fujitsu has acquired engineering consulting firm Promaintech Novaxa based out of Quebec, thus adding business process optimization capabilities to its consulting offering in the industrial and service sectors. Fujitsu will gain 50 business consultants through this acquisition. Fujitsu is investing \$10 billion USD in building its fourth development center in Noida, India to house 1,200 staff. Fujitsu is expecting to add SaaS capability from its India operations. It had acquired recently New York-based SaaS CRM specialist firm, Okere. Fujitsu is planning a further \$10 million USD investment to expand operations in India by 2009.

CSC

California-based Healthcare IT service provider First Consulting Group (FCG) is being acquired by CSC for \$365 million USD in an all-cash deal, approved by boards of both companies. This will enable CSC to strengthen as well expand its healthcare offering in North America, Asia, and European markets.

NEW PRODUCTS & NEW TECHNOLOGY

MICROSOFT

Microsoft Live@edu: Microsoft has announced integration of Microsoft Office Live Workspace into its Microsoft Live@edu suite of services for universities. This will help Live@edu community users by offering file sharing, Microsoft office capabilities, expanding e-mail, IM, and organizing capabilities. Office Live Workspace has been received positively by more than 400 schools due to its enhanced e-mail space and collaboration capabilities.

Microsoft Virtual Earth -3DVIA: In an attempt to compete further with Google Earth, Microsoft in partnership with Dassault Systèmes (DS), a world leader in 3-D and product life-cycle management (PLM) solutions has launched Microsoft Virtual Earth as a technology preview. Dassault's application will enable consumers to create their own 3D infrastructure models and share them with other users. This feature is a direct rival to Google Earth's 3D Warehouse.

Windows Automotive: Windows automotive powered cars are being rolled out from nearly 18 automakers and suppliers a voice recognition system that provides personalized traffic updates, driving directions, and hands-free phone calls. A joint application from Fiat and Microsoft helps car drivers connect their mobile devices with the in-car integrated solution through USB or Bluetooth. Ford's Sync technology allows consumers to operate any digital device through voice or button commands.

RDV LAB

In a first of its kind, Cap Gemini has launched the Rapid Design and Visualization Lab (RDV) center which can cut software development costs by 50%. This lab has completed a 12-month beta period testing with four Cap Gemini clients in ERP application development. The lab uses the latest developments in simulation and communication tools to simulate the project with the current assumptions and review for corrections. Cap Gemini plans to make this technology available to its clients through eight of its accelerated solution environments (ASE's) nationwide. Cap Gemini expects to develop business processes and go-to-market approaches in the future using the RDV Lab.

IBM

IBM has introduced the consolidation discovery and analysis tool (CDAT), which will help small businesses assess whether they can benefit through server virtualization. The tool already available to IBM's solution providers allows them to provide server information to IBM which will then respond with analysis to help in virtualization.

BUSINESS OPPORTUNITIES

IT SPENDING FORECAST

IDC released recently the findings of a Microsoft-commissioned study on the impact of IT on job creation, company formation, local IT spending, and tax revenues in 82 countries and regions worldwide. Seven million new jobs and 100,000 new businesses globally are expected to be driven by the global IT spending until 2011. The Microsoft ecosystem is expected to be responsible for 42% of global IT employment at 15 million jobs. Globally, \$0.5 trillion USD in taxes are generated by the Microsoft ecosystem. Companies working with Microsoft will earn \$7.79 for every \$1 USD earning of Microsoft in 2007. IDC also states that the 640,000 vendors in the Microsoft ecosystem will have \$425 billion USD in revenues and invest \$100 billion USD in local economies in activities like R&D, sales, marketing, etc. China, followed by the US, will be the leading sources of new job creation. For 2007, global IT spending is expected to be at \$1.2 trillion USD and is expected to demonstrate a 6.1% growth rate until 2011. Packaged software will account for only 21% of total IT spending. Tax revenues from the Microsoft ecosystem in the US will be \$203 billion USD, in Western Europe it will be \$133 billion USD, and in Asia-Pacific it would be \$133 billion USD. In Emerging markets, tax revenues will account for \$100 billion USD in 2007.

Software spending represents 27% of North America's IT spending though 65.7% is engaged in support and customer service activities. The Microsoft ecosystem will generate \$166 billion USD in 2007 and earn partners \$6.14 USD for every \$1 USD earning of Microsoft.

In Central and Eastern Europe, software spending accounts for 13% of the total IT Market and 39.8% are involved in support and customer service activities. The Microsoft ecosystem will account for \$19.5Bn in 2007. Partners will earn \$14.07 USD for every \$1USD earning of Microsoft.

In Western Europe, software spending accounts for 21% of the total IT market and 56.6% are in-

involved in support and customer service activities. The Microsoft ecosystem will account for \$124.1 billion USD in 2007. Partners will earn \$7.68 USD for every \$1 USD earning of Microsoft.

In Asia-Pacific, software spending accounts for 15% of the total IT market and 35.9% is involved in support and customer service activities. The Microsoft ecosystem will account for \$83 billion USD in 2007. Partners will earn \$11.18 USD for every \$1 USD earning of Microsoft.

EMBEDDED SERVICES

Embedded Services account for 81% of the semiconductor jobs in India, accounting for about \$3.7 billion USD revenue in 2006. Texas Instruments and Intel Corp have R&D centers in India. Satyam has the largest number of embedded system engineers among Indian IT service companies. There is a huge scope for more work to be outsourced to India.

THRUST ON OPEN SOURCE

In support of the open-source movement, SAP is extending its commitment to Eclipse technology beyond support for the Eclipse IDE by contributing software development capabilities to the Eclipse community. The memory analyzer capabilities will help developers build efficient enterprise applications using Eclipse IDE.

Oracle is offering support to Red Hat Linux users. Oracle has made several of its software applications available on Linux. Oracle made Oracle Database 11g and Oracle Coherence3.3 (a plugable component of Oracle Fusion Middleware), available on the Linux platform. Oracle has also announced file system, system management, and testing tools Validated Configurations availability on Linux.

Oracle has made several of its software applications available on Linux. Oracle made Oracle Database 11g and Oracle Coherence3.3 (a plugable component of Oracle Fusion Middleware), available on the Linux platform.

IBM recently partnered with Novell to deliver



and support Web-Sphere Application Server Community Edition (WAS CE) as part of SUSE(R) Linux Enterprise Server, making it the industry's most comprehensive open-source-based server offering.

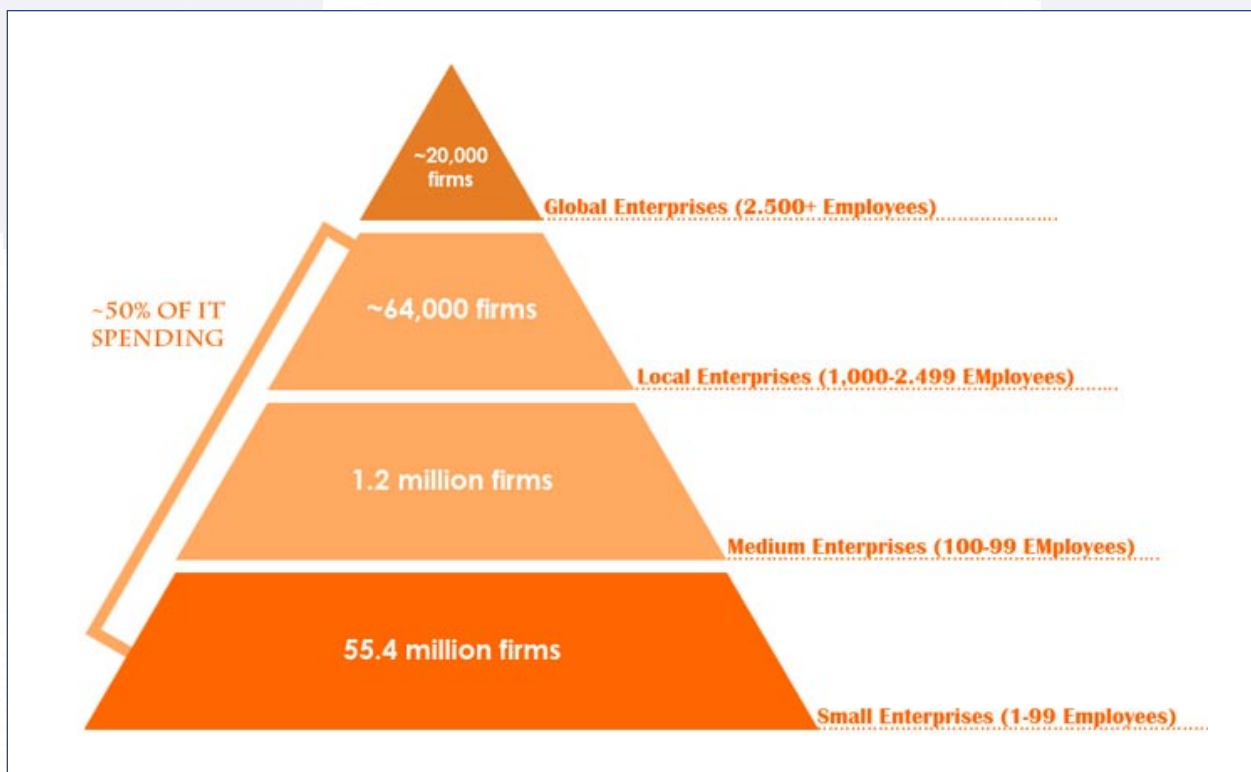
Microsoft has entered into a partnership with Novell that offers the video presenting the Silverlight for Linux. Microsoft opened an interoperability lab for Novell in Cambridge to ensure interoperability of Windows Server and SUSE Linux Enterprise. BMW and Siemens signed up for the Microsoft-Novell interoperability package. Earlier, Credit Suisse, HSBC, and other European companies had adopted this combination. Novell has invoiced around 44% of its SUSE Linux Enterprise Server subscriptions from the Microsoft and Novell collaboration agreement since the agreement inception.

SMB MARKET

Growth in SMB market spending is another significant business opportunity. Small businesses are not interested in taking risks with on-site application packages, and so the SaaS model is attractive to them. SaaS platforms have of late increased

their offerings allowing customization and third-party integration. This has increased the appeal of the platforms and saves a lot of time for SME companies. This has also created a new market for SaaS system integrators. SME businesses are expected to spend \$2.44 billion USD on hosted/SaaS CRM and ERP/SCM in 2007, up some 17% over 2006 levels according to AMI Partners. AMI also reports that there would be strong demand from Britain, France, the US, and Germany. Demand from outside the US is mostly from consumer-facing service industries like insurance, real estate, and financial services.

From the biggest IT services company, IBM, down to a small Chinese IT service provider, the focus on the SMB market is very clear in their business strategy. SMB market spending is growing exponentially globally and is estimated to reach \$46 billion USD on IT by 2010 in China alone. Latin American SMB investment is projected to be around \$10 billion USD in IT in 2006. In the US, SMB spending is estimated to be \$200 billion USD. Developing economies have more SME companies, and hence the spending in emerging markets is higher than developed economies.



Open-source software, ERP, SCM, wireless accessibility, storage, salesforce solutions, hosting services, and SaaS applications will be hot for SMB's, since they prefer an ASP model instead of buying whole packages. Gartner estimates that, by 2009, the SMB market will be \$500 billion USD in size, with North America accounting for 45%.

TECHNOLOGY/ACCESSIBILITY CONVERGENCE

The wireless application market is growing. The mobile entertainment market, currently a \$19 billion USD market, will grow to \$38 billion USD by 2011, per research firm Informa. Music and games are currently driving revenue, but other applications like mobile TV are also expected to do so in the future.

Gartner predicts that \$4.6 billion USD revenue will come from the APAC region alone in 2011. Gartner says that one of the factors driving mobile gaming in developed markets is availability of faster processors in mobile devices, which enable faster response times, 3-D graphics and advanced sound capabilities. As more and more applications are ported onto the Web, the need to make desktop applications work on mobile devices has increased. So most desktop software applications have their wireless equivalent. Compass Intelligence says that US businesses will spend \$9 billion USD on mobile CRM and other mobile applications by 2011. Compass also claims that US companies will spend roughly \$3.8 billion USD in 2007 on mobile applications including CRM, enterprise resource planning, push e-mail, and other apps. The small business (representing 38%) and enterprise business (representing 42%) segments are expected to be the largest spenders on mobile applications from 2006-2011.

Mobile retail alone is expected to generate \$63 billion USD worth of revenue by 2010, according to Juniper Research. These revenues will be driven mostly by mobile ticketing and mobile retail services. Mobile value-added services in India are expected to contribute \$9 billion USD by 2010. Mobile commerce, popularly called m-commerce, is expected to grow to \$90 billion USD by 2009. Revenue from mobile SMS alone is expected to grow to \$50 billion USD by 2010.

SOA

SOA has emerged as a disruptive technology. SOA software components help corporations integrate existing data and applications into new business systems. This provides flexibility in reacting to market changes. Aberdeen reported that the world's largest companies can save a total of \$53 billion USD in IT spending over the next five years if they implement SOA. Aberdeen calculates that a \$10 billion USD company with a \$300 million USD IT budget can save \$30 million USD per year from a broad SOA adoption after a five-year horizon of implementing SOA in at least 75% of its applications.

Accenture is investing \$450 million USD in SOA initiatives until 2009. IBM has invested \$1 billion USD in SOA-related activities. The SOA market has been placed by various analysts in the range of \$18-\$50 billion USD by 2010. This opens up a lot of scope for new entrants into the market. Per Wintergreen research, IBM has a 53% market share, whereas Microsoft has an 8% market share. IBM currently offers 3,600 free and paid services through its SOA business catalog. SOA in APAC is expected to be \$1.2 billion USD in 2009.

IT COMPANIES MOVING INTO OTHER SECTORS

IT companies are moving into other industries.

- Paypal and Amazon are set to surpass banks as payment alternatives.
- Google is coming up with its cell phone. IT companies are trying to buy TV space for wireless broadband.
- IT companies have already captured a major chunk of the entertainment space and companies like Microsoft have targeted the entertainment sector as a high-growth sector.
- With social networking, IT companies have cut down on boundaries and space and created new collaborative mediums.



- IT companies have also succeeded in helping NGO's raise money over the Internet. Similarly, media providers are aligning with internet aggregators and social networking Web sites.
- Consumer electronic companies like Sony, Nintendo, etc. are inventing new digital devices and are being competed against by IT companies like Microsoft.
- With the convergence of Internet and mobile, telecommunication companies will have to make a fast transition to increase their offerings across both technologies to derive the benefits of convergence and to raise entry barriers for new players.

HEALTHCARE IT

A Springboard Research study has stated that the Asia-Pacific healthcare IT market will grow to \$4.83 billion USD in 2010, at a CAGR growth rate of 13.1% until 2010. India has the fastest-growing healthcare IT market, followed by China, Vietnam, and Australia respectively. China has the largest market, about 46% of the healthcare IT market in Asia-Pacific. Increased information sharing across providers, regulatory spending, and focused care is increasing the IT spending in this region.

WEB 2.0 AND RICH INTERNET ARCHITECTURE (RIA)

Web 2.0 applications from on-line companies like Google, Yahoo, Flickr, Youtube, etc. all use AJAX extensively.

AJAX is emerging as the hottest solution for developing rich Internet applications (RIAs). RIA space will become a \$3 billion USD industry by 2011. According to Gartner Research, nearly 60% of all new application development will have included RIA technology by 2010.

Web 2.0 applications are bringing RIA, social networking, richness in user experience, etc. together. Web 2.0 companies allow users to contribute to its content and even programming. Web 2.0 compa-

nies are trying to apply "Wisdom of the Crowds" principles to its Web sites. The main mission is to build a user-community-driven workspace. Youtube, Flickr, Myspace, Facebook all come into this category.

Investment in Web 2.0 technologies has reached \$979 million USD in VC funding per Ernst and Young. The on-line games market is forecasted to grow to \$13 billion USD in 2011.

VIRTUALIZATION

Virtualization is about server virtualization, the ability to use the same server as several virtual machines operating different software applications and different operating systems. Normally, servers use only 10%-20% of their computing power since they usually run one program per machine. Virtualization software utilizes this wasted capacity. So e-mail, web servers, accounting, and HR applications which are normally run on four different servers can be run on the same one. This helps companies to cut down on servers.

A virtualized data center can also merge many servers into a single large pool of computing power. IDC has predicted the overall server market will grow only around 2% between now and 2011, largely because companies will virtualize rather than buy more server hardware.

The market for virtualization services is expected to climb to \$11.7 billion USD in 2011. VMWare is the market leader followed by Microsoft. Currently less than 5% of servers are virtualized and, hence, the potential is immense. VMWare recently launched the largest IPO since Google, with its market cap reaching \$16.8 billion USD. EMC owns 90% of VMWare. VMWare had a revenue growth rate of 85% on the average for the past three years. Amazon, with its EC2 offering, is another player in this sector.

Microsoft and Sun Microsystems are collaborating to enable deployment of Microsoft Windows server on Sunx64 systems. This alliance, mainly targeted at the current demand for server virtualization, helps Microsoft offer its server offerings on 64-bit computing Sun, and Microsoft will ensure the interoperability of Solaris and Windows and that they run as guests on each other's system.

AUSTRALIA

A recent Frost & Sullivan report stated that the Australian government IT outsourcing market will grow from the current \$1.41 billion USD in 2006 to \$1.64 billion USD by 2010. Cost, experience, IT security, capability, and brand name were cited as factors when selecting an IT or an ITES vendor. The study projected that the outsourcing market will grow after the 2009 elections.

ASIAN IT INDUSTRY

The Chinese software market has a size of \$50Bn+, but due to language, political, and cultural barriers, Indian companies have not been able to gain a significant market share. China's IT services sector is sized at \$28 billion USD in 2010. NASSCOM's recent white paper suggests that India will continue to remain the most preferred outsourcing destination over the next five years, despite China's IT sector growth. NASSCOM suggests that Indian and Chinese companies may partner on IT contracts. Low usage of English and weak IPR and regulatory framework is affecting development of the IT industry in China per this report. Japan and Korea form China's main export markets whereas for India, it is North American and European markets. According to the latest statistics of the ministry of information industry, China's software industry recorded a growth of 22.9% for the year up to August 2007, with revenue being \$45.73 billion USD.

CHINA

Software products revenue increased 24.1% to \$16.1 billion USD; system integration revenues increased 18.5% to \$11.1 billion USD; software IT services grew 23.9% to \$7.4 billion yuan; embedded system software grew 24.5% to \$9.8 billion USD and IC Design rose 27.6% to \$1.13 billion USD. Government is considering a policy framework to boost development of software and integrated circuits. It will also make efforts to regulate the domestic software market and try to curb piracy. China currently has a 6% market share of the global software industry.

REGULATORY COMPLIANCE

Regulatory compliance has increased demand for compliance software. Investment in business intelligence (BI) and analytic tools has also increased.

BFSI

The banking, financial services, and insurance (BFSI) sector spend the highest on IT in North America. Companies are also spending more on business-IT alignment, project life-cycle management, and ALM tools. Companies in the US are expected to spend \$6 billion USD on Sarbanes-Oxley compliance in 2007 and this is expected to rise to \$6.2 billion USD in 2008 per AMR Research. IDC reports that the legal discovery and litigation support infrastructure market alone is forecast to reach \$12 billion USD in 2007 and \$21.8 billion USD in 2011, for a compound annual growth rate (CAGR) of 17.6% over the five-year period.

ON-DEMAND SOFTWARE

The market is moving towards an on-demand model rather than fixed packaged licensing. Frost & Sullivan are forecasting a CAGR of 27 % for the Asia-Pacific (APAC) on-demand software from 2006 to 2009. The market will increase from \$70.3 million USD in 2006 to \$144.3 million USD by the end of 2009.

SOFTWARE COMMODITIZATION

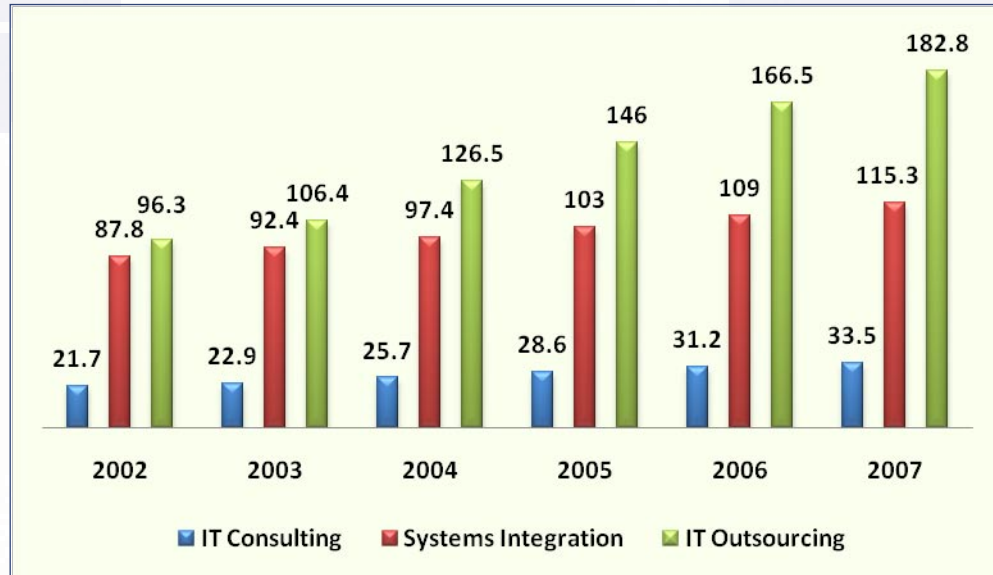
Software is becoming increasingly commoditized. This trend has helped consumers access better technology at cheaper prices, but for large packaged software vendors, software commoditization is becoming an emerging threat.

INFORMATION SECURITY

IT security can be used as an entry point to penetrate several geographies. For example, in Japan with the enactment of the Japanese version of the Sarbanes-Oxley Act, internal control, compliance, and information management are key words. The market is estimated to be between \$13-\$15 billion USD, with a 19% growth rate over last year.

FINANCIAL PERFORMANCE OF THE INDUSTRY

American IT Services Market Segments Growth



Source: Gartner & IDC

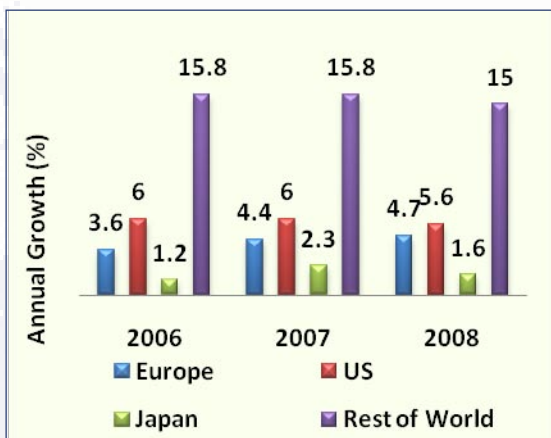
Company	2006 Revenue & Market Share	2005 Revenue	Growth (%)
IBM	48,247 (7.2%)	47,407 (7.5)	1.8
EDS	21,268 (3.2)	19,757 (3.1)	7.6
Fujitsu	17,887 (2.7)	17,903 (2.8)	0.1
Accenture	17,231 (2.6)	15,989 (2.5)	7.8
HP	16,442 (2.4)	16,104 (2.5)	2.1
CSC	14,682 (2.2)	14,611 (2.3)	0.5
Others	536,608 (79.8)	500,108 (79.1)	7.3
Total Market	672,365	631,879	6.4

According to IDC, end users spent \$1.16 trillion USD on information technology in 2006 and will increase spending at a compound annual growth rate (CAGR) of 6.3% to reach \$1.48 trillion USD in 2010. According to Nasscom's IT industry analysis, the US accounted for 67.18% of the IT industry's revenues in 2006-07 (FY07)—a 2% decrease from 2002-03 (FY03) when it accounted for 69.10%. IT spending is forecast to increase by 6.6% in both 2007 and 2008. The US share in the IT market has decreased to 67.18% in 2007 from 69.1% in FY03. Europe increased its market share to 25.13% in 2007 from 22.2% in 2003.

In 2010, spending on software is expected to reach \$327 billion USD, while the IT services market is expected to reach \$587 billion USD.

Worldwide IT services revenue totaled \$672.3 billion USD in 2006, a 6.4% increase from a 2005 revenue of \$631.8 billion USD according to Gartner. BPO and BPM grew 8.6%. Development and integration account for 30% of the market in 2006. Across all IT services, IBM continued to be the worldwide market leader, with 7.2% market share in IT services, followed by EDS and Fujitsu. Indian companies earn only 3% of total IT services, whereas US-based vendors earned 57% of that total.

Annual Growth in IT Markets by Geography



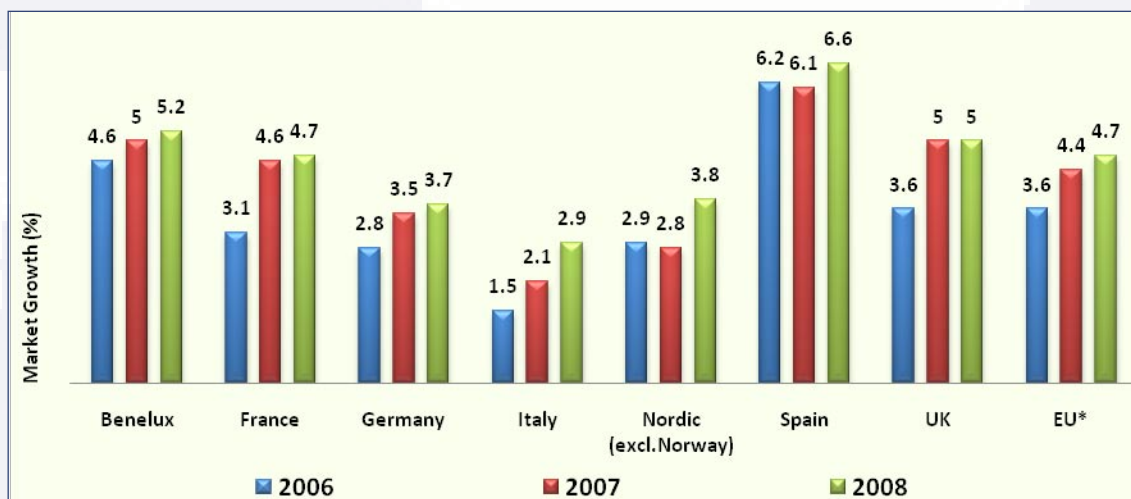
Source: EITO 2007 in co-operation with IDC

NORTH AMERICA PROJECTIONS

Annual US enterprise spending on information technology (IT) operations and acquisitions will reach \$1.033 trillion USD in 2010, largely driven by acquisition spending on storage technology and software, according to Infotech Group.

EUROPE

Europe is projected to have a market size of \$406.5 billion USD in 2010. Western Europe will have normal growth rates of 5.3% and 6.3% in 2007 and 2008, but Central and Eastern Europe countries will expand by Central and Eastern European markets, expanding by 14.0% and 13.6% in 2007 and 2008 respectively.



Source: EITO 2007 in co-operation with IDC

AUSTRIA

Austria is projected to have a \$10 billion USD IT spending level by 2010, with services accounting for 30%. Belgium, Sweden, Denmark, Austria, Poland, Finland, and Norway together are expected to have an IT spending level of \$6.3 billion USD to \$13 billion USD. IBM is the largest IT vendor in Austria. Growth in the IS sector of Japan is expected to reach \$122 million USD in revenues by 2010.

GERMANY

The German market for software is the largest in Europe (\$72 billion USD in 2006). The German software market is anticipated to grow 5% over the next few years. Eighty percent software products come from US suppliers. There is a growing demand for e-Security and CRM services. IT sales are attributed mostly to German subsidiaries of US companies. Germany is projected to have a IT market of \$219 billion USD in 2010.

GREECE

The Greece IT market is growing at a 12.5% average rate. The market is dominated by US software companies or their European subsidiaries. Market size is estimated to be around \$4.4 billion USD.

FRANCE

France is estimated to have an IT market of \$51 billion USD, employing around 56,000 employees in 2006. Over 6,000 French firms specialize in software services, 2,000 with 10 employees or more. The French packaged software market is valued at \$8.2 billion USD. The five largest French software publishers are: Dassault Systemes, Business Objects, GL trade, Atos Origin, and Cegid. While Dassault Systems and Business Objects generate 90% of their income through their international operations, other French software firms primarily focus on the French market.

IRELAND

Ireland is estimated to have a software market size of \$800 million USD. The Irish software in-

dustry has 900 firms employing over 24,000 people. IT spending so far has had a growth rate of 3% in 2007. System integration and application development take the major share of total enterprise IT services. Ireland is an export-oriented market.

ROMANIA

The Romanian packaged software market is about \$165 million USD. The market is dominated by US vendors. The top three vendors (SAP, Oracle, and local player Siveco) capture 60% of the Romanian EAS market.

SPAIN

The information technology consulting market in Spain grew an estimated 9% in 2006 to \$9.7 billion USD. The top five technology consulting companies active in the Spanish market accounted for 42.1% of total sales in 2005.

UKRAINE

Software development is estimated to account for between 10%-30% of its revenues at \$150-\$300 million USD. There are over 1,000 IT firms in Ukraine. The Ukrainian IT industry export had a growth rate of 60%, reaching \$280 million USD in 2006. It grew 47% in 2006 with 30,000 IT graduates arriving into the workforce each year.

ITALY

Italy has a \$11.8 billion USD IT services market and a \$5.2 billion USD software market. The top 10 companies hold over 50% of market while the rest is held by around 3,000 midsize companies. The US IT service providers dominate the industry in Italy.

ASIA-PACIFIC

The overall IT market in Asia-Pacific (excluding Japan) is forecasted to reach \$132 billion USD (10% YOY) in 2007, fueled by increasing domestic demand and economic growth in the region spearheaded by India and China according to IDC. Together, China and India will make up more than 43% of the region's IT spending, with China remaining the largest IT market consisting of 32% of the region's IT spending and India growing at a remarkable 23%.



China will overtake Australia as the largest market for IT services by 2010, per IDC. In 2011, India is expected to overtake Korea to become the third largest market in the region. IDC has forecast that the market will grow from \$29.57 billion USD in 2005 to \$48.37 billion USD in 2010. This represents a compound annual growth rate (CAGR) of 10% over the forecast period.

India has an estimated share of 65% of global offshore IT and 46% of global BPO. The addressable market for offshore BPO globally stands at \$150 billion USD. India is forecasted to have revenue of \$60 billion USD by 2010. Pakistan is expected to have an IT market size of \$10 billion USD in 2010, which presently is over \$2.2 billion USD revenue and \$1 billion USD IT exports.

RISING COSTS IN INDIA

IT service providers in India are moving to Tier 2 and Tier 3 cities to reduce their costs due to the falling dollar and rising wages. These cities can curtail up to 15% of operational costs for the IT service providers. Also, the completion of the STPI tax holiday does not make it beneficial for IT service providers to continue in major cities. IT service providers have been lobbying government firms for extension of tax benefits. The Ministry of Communication is preparing a note for the Union Cabinet's consideration to extend the benefits beyond 2009. However the Finance ministry is not in favor of extending the tax benefits since in 2006-2007 alone it had to forego \$3 billion USD in tax revenue, which was a 44% increase over \$2.16 billion USD foregone in 2004-2005. India's 42,000 SME- registered with STPI contribute around 41% of its total exports. ASSOCHAM predicted that around 200,000 jobs would be created in these cities by 2010.

OFFSHORE OUTSOURCING

Offshore outsourcing has been seeing increased resistance from the Western world. Pressure has mounted on Congress not to raise the H1B quota in the US. The value of outsourcing to India in 2007 is estimated at \$47.8 billion USD. In 1998, Congress lifted the H1B cap from 65,000 to 115,000. The American Competitiveness in the 21st Century Act, signed by President Clinton in late 2000, raised the cap to 195,000, then lowered it in fiscal 2003 to 65,000. Large US Employers are pushing for a cap increase to allow more Indian professionals to come to the US. According to the Bureau of Labor Statistics, tech unemployment is at 2%. The US senate is putting forth several bills to protect the interests of American workers.

PIRACY

Microsoft has filed 20 lawsuits against suspected dealers of counterfeit software in 13 states (Alabama, California, Connecticut, Georgia, Illinois, Mississippi, New Jersey, New York, Ohio, Oklahoma, Texas, Utah, and Virginia). Counterfeit software costs the US economy 750,000 jobs annually and software piracy has cost \$7.3 billion USD in 2006, according to IDC. The software industry employs 10.1 million employees in the US.

The US government has lodged an official complaint in WTO against China to force China to act against piracy of movies, music, software, and books. Piracy in China cost US Companies \$2.2 billion USD in 2006 sales, according to an estimate by lobby groups representing Microsoft, Walt Disney, and Vivendi. In July, the Federal Bureau of Investigation (FBI) and China's Public Security Bureau (PSB) arrested 25 gang members believed to be responsible for manufacturing and distributing more than \$2 billion USD of illegal software. The US government wants China to take more stringent steps to curb piracy.