

# THE BRAZILIAN IT MARKET

THE LARGEST AND MOST DYNAMIC IT MARKET IN LATIN AMERICA

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Brazil is the leading information technology (IT) market in Latin America, accounting for one out of every two dollars spent on IT products and services in this region. After a dismal 2001, Brazilian IT demand is expected to improve this year as Brazil's economy returns to a more vibrant growth rate. International Data Corporation (IDC), a U.S. market research company, predicts that IT spending there should increase 3 percent to nearly \$13 billion by the end of 2002. Computer hardware demand should decline slightly while networking equipment should recover. IT services should have the most pronounced turnaround of any IT spending category, however. Packaged software purchases may be even higher than they were in 2001.

## SIGNIFICANT PROSPECTS

The long-term outlook for IT sales in Brazil is extremely good, because the Brazilian economy is expected to have a growth spurt of more than 3.5 percent annually over the next few years. The only factors that might adversely affect this forecast would be another downturn in the global economy, a return of

the energy crisis that Brazil endured in 2001, and further substantial devaluation of the real. Brazil's computer hardware market should be buoyed up by the private sector's ongoing modernization of its operations and the Brazilian government's commitment to providing Brazilians with electronic government (e-government) and expanding computer and Internet use throughout the country. These efforts should translate into significant sales opportunities for U.S. suppliers of servers, desktop and notebook personal computers (PCs), handheld computers, and even used PCs in the future. The rising tide of systems purchases should also benefit U.S. peripheral equipment firms. Best prospects include scanners, printers, disk drives, and digital videodisc players. Demand for high-end data storage devices should be particularly strong as well, given increased concern in Brazil about data security and disaster recovery following the terrorist attacks in the United States last September.

The Brazilian packaged software market has enormous potential for U.S. companies as long as Brazil makes meaningful progress in combating intellectual property rights violations. Brazilian manufacturing and services corporations have a significant need for

software solutions that will help them to reduce costs and increase profits through automation of their industrial and commercial processes. The software packages that will continue to be in the highest demand among businesses in Brazil are those for customer relationship management, networking and communications, database management, electronic document management, and enterprise resources planning. Corporate security concerns should result in heavy spending on IT security solutions such as encryption, anti-virus, and firewalls. Brazilians have also shown a keen interest in solutions developed around the Linux operating system and Java applications development tools. Desktop PC applications for use by small and medium-sized enterprises (SMEs) and more affluent homes and educational software for secondary schools are good opportunities as well.

Brazil should be an excellent market for networking equipment, benefiting from the continuing expansion of the telecommunications infrastructure and corporate interest in establishing intranets and extranets. Greater PC and Internet use in education and health care should also lead to the spread of networking on university campuses, in schools, and among hospitals, clinics,

and other medical facilities. In-Stat/MDR, another U.S. market research group, believes that Brazil holds immense promise for wireless local area networks.

IDC forecasts that spending on IT services in Brazil will overtake investment in computer equipment by 2003 and increase very rapidly thereafter. A growing number of cost-conscious Brazilian businesses have been outsourcing their systems and network management and data processing activities to IT services suppliers over the past several years and should continue to do so. Public sector agencies and corporations engaged in a large number of modernization programs have a great need for IT consultants and system integrators to install, program, and connect servers to legacy systems, to integrate front and back offices, and to provide education and training to alleviate Brazil's acute shortage of qualified IT personnel. Finally, corporate executives have always considered data warehousing and IT security services

important parts of their IT budgets, but they should boost these investments substantially in the wake of last September's terrorist events in the United States.

#### A WIRED POPULATION

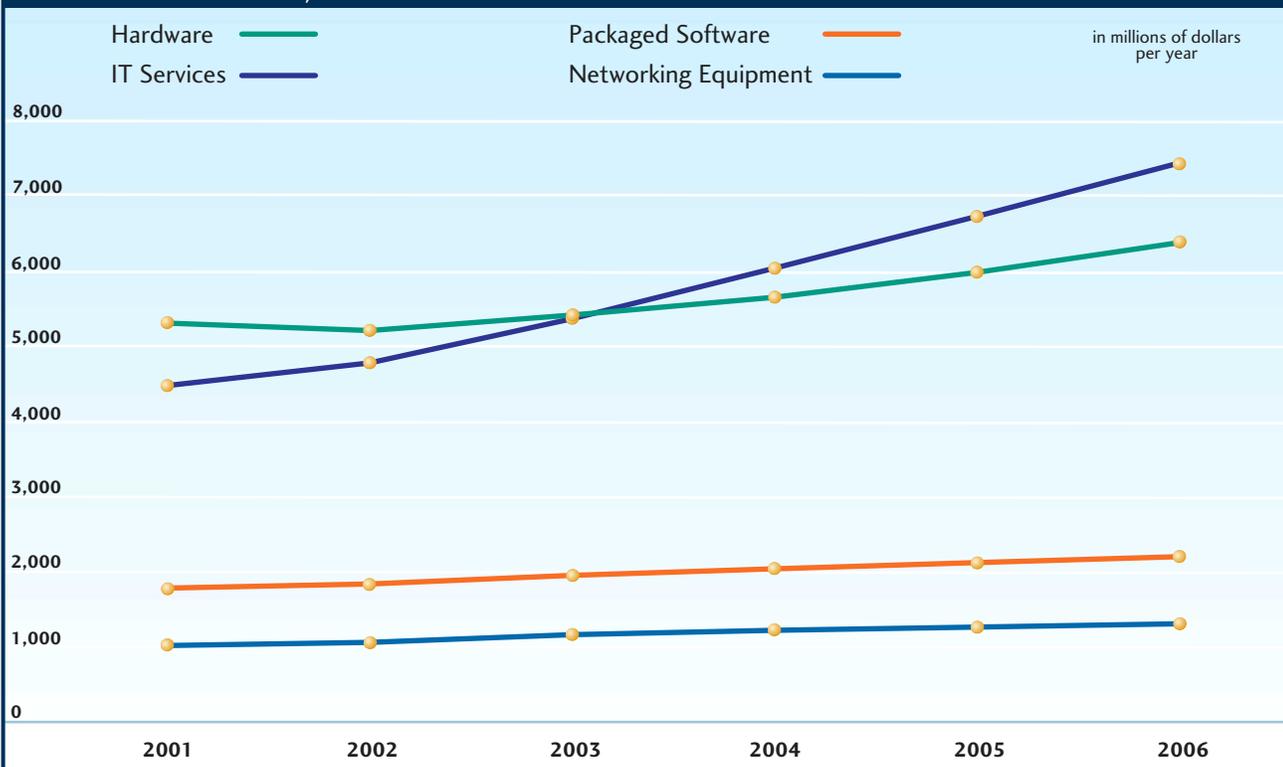
Brazil has the most PCs installed and the largest Internet population in Latin America. However, the use of PCs and the Internet is still confined to the wealthy due to various structural and socioeconomic barriers. The Brazilian public and private sectors have launched efforts to deal with these problems over the past few years. The Brazilian government has projects under way to provide schools and communities across Brazil with PCs and Internet access, to revamp the national health care system and give all Brazilians medical care service through the use of IT, and to improve government services and ensure that every citizen has access to them through electronic government. It has also been working diligently to bring down the costs of PC ownership and Internet



access. The Yankee Group, a U.S. market research firm, forecasts that the number of Brazilian Internet users will triple to 42 million by 2006.

Brazil experienced the same high-tech shakeout that occurred in the United

#### BRAZILIAN IT SPENDING, 2001-2006



States and in many other developed nations from late 2000 onwards. The number of Internet service providers (ISPs) fell 50 percent to fewer than 700 by mid-2001. A handful of players now controls this market, and further consolidation of Brazil's ISPs is expected in 2002. Improvement in the fortunes of ISPs is likely in the near future as Brazil's economy picks up and Internet use spreads among the middle class, small businesses, and schools. As a result, there will be numerous potential opportunities for U.S. suppliers. The expansion of electronic commerce (e-commerce) and e-government will undoubtedly create significant demand for the services of companies that can design and develop Web sites, provide content for them, and host them. Involvement in e-commerce may also stimulate many firms to outsource their entire Web and interconnection needs rather than taking on the burden of costly investments in telecommunications, network, and computing infrastructures, as well as in-house personnel required to run these operations.

Although broadband is in its infancy in Brazil, Brazilian users, especially SMEs and upper income residential customers, will increasingly demand Internet connection through this high-speed service. Businesses in remote areas where wired telecommunications are not yet available may opt for satellite service. Wireless Internet access for homes and businesses through wireless applications protocol and other services should grow substantially. Wireless may also be much more viable than wired access for home users, considering the low PC penetration and the popularity of cellular telephony there.

#### E-COMMERCE

Brazil has the most networked economy in the region. IDC predicts that Brazilian e-commerce may quadruple to over \$20 billion by 2004, with business-to-business (B2B) trade still accounting for most of this activity. Various e-commerce initiatives have emerged over the past two years focused on electronic procurement of basic supplies (e.g., telecommunications

and petrochemicals); electronic marketplaces operated by automotive, chemical, agricultural, and construction companies to trade goods and services within their respective industries; and vertical portals for transactions among industries participating in one supply chain. However, finance and retailing continue to lead B2B e-commerce. Most companies are in early stages of e-commerce development, since more than half use the Internet only for e-mail and information gathering purposes.

Brazil also leads Latin America in online retailing. It profits from the most advanced e-commerce industries and the largest Internet population in the region, a wide range of Portuguese-language content providers, and a sophisticated home banking system with state-of-the-art equipment. More than 3 million Brazilians purchased on-line in 2001, but the number of active buyers represented less than 20 percent of all Internet users in Brazil. More widespread use of business-to-consumer e-commerce is limited by



## ExportIT Reports

The ExportIT reports are a series of in-depth studies focused on foreign IT and Internet markets. They describe and analyze the trends, key issues, and events in telecommunications, the Internet, and e-commerce in regional markets. These reports help create a framework from which U.S. small and medium-sized enterprises (SMEs) can make educated business decisions about entering these markets.

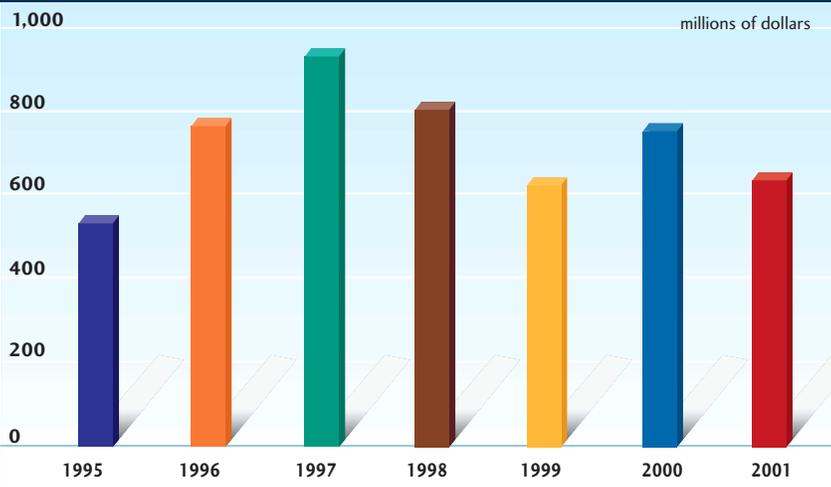
Analysis focuses on the status of telecommunications liberalization, competition in telecommunications services, and the deployment of new telecommunications technologies, and how these changes are affecting the adoption of the Internet and e-commerce.

Economic, cultural, historical, and political factors that influence the spread of information, Internet, and e-commerce technologies are also vital pieces of these reports. Suggested market entry strategies for smaller firms, as well as U.S. Department of Commerce and other resources to assist U.S. firms in market entry endeavors, are provided.

Feedback is welcomed, particularly on regions or countries you would like to see analyzed in future reports.

Look for reports on Japan, Western Europe (France and Germany), and China to be released in the coming months. All reports are available on the ExportIT Web site: <http://exportit.ita.doc.gov>.

### U.S. COMPUTER EXPORTS TO BRAZIL



Source: U.S. Department of Commerce

a lack of disposable income among the majority of Brazilians, consumer concern about on-line security, and an inadequate transportation infrastructure that restricts delivery of products bought over the Internet.

Brazil does not currently have any specific legislation that regulates e-commerce. Bills that address the particular legal issues raised by it and stipulate regulations supporting its development in this country have been under consideration by the Brazilian Congress for some time. Most of the legislative action has been directed toward digital security.

#### NEW MARKET RESEARCH FOR EXPORTERS

In its efforts to provide small and medium-sized enterprises (SMEs) with high quality foreign market research, the U.S. Department of Commerce recently released an ExportIT report on Brazil. The 40-page report is the latest in a series that analyzes trends, issues, and events in information technology, telecommunications, the Internet, and e-commerce in various countries to help SMEs make educated decisions about exporting. These reports also highlight market opportunities and provide possible market entry strategies, including descriptions of Department of Commerce export services as well as a list of key U.S. and overseas contacts who can assist U.S.

firms in entering international markets. The ExportIT report on Brazil updates a June 2000 study on Latin America in and is available on the home page of the Office of Information Technologies (<http://exportit.ita.doc.gov>). ■

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