



# China: Specialty Software Market

Jane Shen  
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## Summary

China's software industry, with sales revenue of over \$85.5 billion in 2007, is a large sector still undergoing rapid growth. Software, in particular specialty software, remains the foundation for progress in the country's information technology, advanced manufacturing, and modern service industries. Chinese government agencies and large local enterprises remain focused on improving their efficiency through using new IT software products and solutions. With the strong support of government incentive regulations and programs, China's specialty software industry has made noticeable gains in the development of such areas as database software, Chinese-language office applications, and information security software. Compared with other developed countries, China's software and IT service remains an emerging sector and is expected to grow approximately 30 percent annually over the next five years. At the present, China's local software industry still lacks core technologies, high-end software development talent, and consistent high quality software products. Key opportunities for U.S. companies in the specialty software market are in such industries as the financial, education and training, telecommunications, and security sectors. U.S. software companies should be aware of China's registration and certification requirements for software products.

## Market Demand

In China, specialty software, or software designed for a specific application, remains a strong prospect for U.S. exporters. Most large and medium-sized Chinese companies, as well as local government offices have an IT infrastructure in place with basic software applications and hardware. China's central government has targeted software as a key sector to promote and develop, and the government's national 11th Five Year Plan (2006-10) has designated over 100 "digital cities" as targets for infrastructure development. As a result, the government is expected to remain one of the largest users of IT products and services in the next five years.

The reorganization in 2008 of the Ministry of Industry and Information Technology (MIIT), previously called the Ministry of Information Industry, emphasized the government's renewed focus on promoting the "informatization" of IT industrial sectors. According to the research firm Business Monitor International (BMI), MIIT recently launched an initiative with the Ministry of Commerce and State Administration of Taxation to offer a 10 percent reduction in the corporate tax rate to 152 software firms in China. In developed countries, hardware, software and IT service sectors consist of relatively equal portions, or one-third of the total IT market value. In China, by comparison, the hardware sector accounts for 70 percent of the value of the IT industry, while software and IT service are only 20 percent and 10 percent respectively.

## Market Data

According to MIIT, China's software industry accounted for 8.7 percent of market share in the global software industry in 2007. The MIIT estimates that China's software and IT services sales market will grow approximately 30 percent annually over the next five years and software sales volume will reach \$190 billion in 2010. Furthermore, China's software industry is dominated by foreign brands, with local software products comprising less than 30 percent of the market.

### *Chart A: China's Software Market 2002-2006 (in USD millions)*

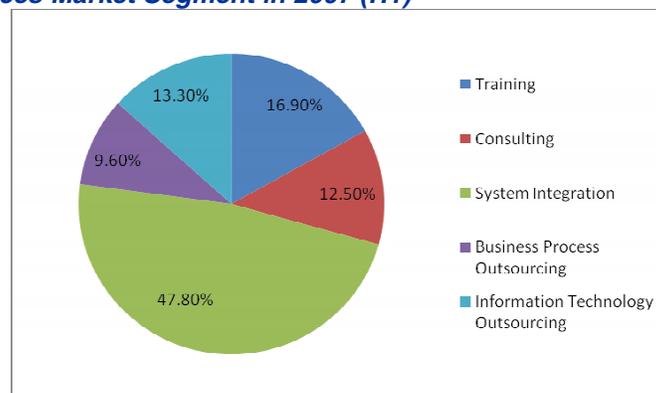
	2002	2003	2004	2005	2006
Total Market Size	6,547	9,072	16,935	22,000	22,854
Total Local Production	6,875	10,000	18,625	25,750	26,125
Total Imports	872	1,072	1,110	1,214	1,324
Imports from the U.S.	201	248	237	268	280

Source: World Trade Atlas, China Software Industry Association (CSIA), the Ministry of Information Industry (MII)

According to BMI, China's IT service market value rose to approximately \$10.9 billion in 2007, as banks, telecoms carriers and manufacturers invested in this sector. The market value worth of the IT service industry is predicted to reach U.S. \$18 billion by 2010. Specialty software is a market segment in which foreign firms have an estimated 70 percent of the market. U.S. firms hold a strong position in such areas as automation, digital imaging, and storage software.

The following chart shows the segmented market structure of Chinese IT services market in the first half of 2007.

**Graph B: China's IT Services Market Segment in 2007 (H1)**



Source: 2007 CCID Report

## Prospective Buyers

Key benefits mentioned when positioning these solutions are focused on how the new software can achieve the following:

- Streamline operation
- Add new functionality
- Lower return on investment (ROI)

The rapid expansion of China's software and IT service market impacts a wide range of sectors, including enterprise resource planning (ERP) software, embedded software, and financial software. As a result of this rapid growth, opportunities will continue to expand for U.S. exporters in the specialty software sector for such areas as finance, education and training, safety and security.

By the end of 2007, according to the MIIT, China had 18,810 local-certified software companies, approximately 50,779 registered software products, and more than 1.48 million software-industry professionals. The revenue of China's software and information services industry in 2007 reached \$85 billion, a 20.8 percent increase from 2006. The Chinese software industry has undergone rapid development in the past ten years, and now an industry conglomeration effect has taken shape, with eleven state-level software industry centers located across the country.

The Chinese government encourages software companies to obtain Capacity Maturity Model (CMM) and ISO 9000 certifications. By the end of 2007, 41 Chinese software developers had received CMM5 certifications and

2,348 had attained qualified system integrator certificates. But only 148 software developers had earned first-grade system integrator certificates.

## **Best Prospects**

Potential opportunities for U.S. companies in the specialized software market include the following key areas:

### ***Financial Software***

The financial management software sector began development in earnest with the establishment of China's local software industry in the early 1980s, and slowly increased in size and scope through the 1990s. Originally created to serve the Chinese tax office, the domestic financial software sector has grown into a diversified and competitive sector serving a wide array of government and private institutions. China's entry to the WTO in 2001 created a niche for foreign companies to enter this sector facing rapid annual growth.

The major purchasers of specialty software and IT services in the financial sector are banks, financial institutions, and the government. Financial software companies have benefited from preferential purchasing by government and banking institutions. According to BMI, in the financial sector some providers are looking for scale and the need for standardized financial software. Within the financial software market, domestic companies such as Kingdee and UFIDA, account for more than half of the market share focusing on accounting software and enterprise resource management (or ERP) software.

While China's banks may already have their own IT systems and resources for basic office operations, many are still in need of systems integration software. Developing specialized software to leverage existing bank software resources is a common issue that banks face.

### ***Education and Training Software***

With the rapid development of IT and related application industries, China's IT education and training market achieved relatively steady growth, with an 18.6 percent year-on-year increase in 2006. This can be partly attributed to the rapid development of the software and Internet industries, as well as the government and IT education and training vendors in the market.

In 2006, the IT education and training market was highly competitive, and a number of successful training institutions emerged in this sector. The quality of teaching became the focus of attention for consumers and the focus of competition between IT education and training vendors. Due to enlarged enrollment in colleges and universities and intense competition for talent, the high-end IT education and training market is rapidly growing. There is a great opportunity for software companies to create software that will train and increase the efficiency of office personnel through software applications. Furthermore, education is one of the top three expenditure areas by consumers in China. People remain keen on enhancing their competitiveness by earning higher education degrees and training certifications. This is particularly true in first-tier mega-metropolitan areas, like Beijing and Shanghai, as well as second-tier cities such as Hangzhou, Suzhou, and Wuxi. As a result, education and training software and services remain great opportunities for U.S. software companies.

### ***Telecommunications***

The telecom market is comprised of mobile and fixed-line subscribers. With the world's largest population, China has the biggest growth potential within the telecommunications sector. For mobile communications alone, there are over half a billion subscribers (more than 560 million subscribers to date). According to MIIT, China's telecom industry had revenues of \$58.4 billion from January to June 2008.

Mobile and broadband subscribers have low penetration rates, but are growing rapidly at the expense of fixed-line subscribers. In recent years, fixed-line subscribers have shown a continuous decline in enrollment numbers. New technology-based services are appearing for this sector. The government still maintains a firm grip on the communications market with only a few foreign investors acquiring small stakes in some of the large operators.

However, with the restructuring of the telecom industry in 2008, the sector is expected to face increased competition.

### **Security Software**

Security software is of growing importance for China's economy. The rising demand of the Internet, combined with a surge in IT-enabled business solutions, has created a market niche for security software companies. Increasingly, virus attacks are becoming more sophisticated and businesses and government institutions alike are relying more and more on integrated, high-tech security software. In 2006, telecom, financial and government sectors remained key industry markets for network security vendors.

In addition, the rise of the education and energy sectors has created new opportunities in the network security market. Small and midsize companies have gradually become the focus of competition among network security software vendors. In addition, some security software such as mobile phone navigation software products will enjoy strong prospects for growth in China.

### **Key Suppliers**

As previously mentioned, hardware still accounts for 70 percent of China's IT market share. According to a forecast by the market research firm IDC, the IT services market is expected to only account for 22.9 percent of the value of the whole China IT market in 2008. However, a growing trend in China is for equipment manufacturers to bundle hardware and software as one solution. In addition, companies selling software are often expected to provide complimentary training on how to use the software products. In order to attain the higher margins associated with IT services, an increasing number of local companies are following a trend among global companies and transitioning from hardware suppliers to professional service providers.

A process of consolidation is continuing in the sector, particularly among local companies looking to grow as a result of mergers and acquisitions. Digital China is the leader in the government sector, ahead of IBM and China Soft. However, in the banking and financial sector, IBM has the lead, with Digital China in second place, and Bearing Point in third, according to research done by IDC. While IT service companies range from small start-ups to multinational firms, the dominant software and IT service companies in the China market are:

- Microsoft
- IBM
- HP
- Digital China
- Insigma Technology
- Neusoft
- Oracle

### **Market Entry Strategies**

The convergence of broadband telecommunications networks, digital television networks, and the Internet, combined with the upcoming issuance of China's 3G licenses, will create large opportunities for U.S. software products and IT services companies.

For U.S. software companies that are new entrants to the Chinese market, providing references from existing U.S. clients is important to establish credibility. Software companies should also be prepared to address extra needs for software support. In some cases local companies purchasing software have requested several years of free software support as part of any deal. In addition, offering localized software is another critical factor for U.S. software and IT services companies focused on winning business in the China market for the long term.

Rather than focusing only on such megacities as Beijing and Shanghai, U.S. companies should also consider targeting second-tier cities, such as Nanjing, Hangzhou, and Tianjin, which may be even more receptive to new products and partnerships. The U.S. Commercial Service can assist American exporters to target 14 of these second-tier cities across China.

## **Market Access Issues & Obstacles**

### ***Regulated Sector***

China runs a dual-certification system on software and IT service companies as well as software products. Three key requirements are as follows:

- Sales of the enterprise encryption software in the Chinese market needs to comply with the Commercial Cryptography Administration Regulation ([www.oscca.gov.cn/index.htm](http://www.oscca.gov.cn/index.htm)).
- Enterprise encryption software products need to pass the technical tests/inspections to receive an approval certificate from the State Cryptography Administration Bureau.
- The sales office of the enterprise encryption software company needs to receive a sales business license from the State Encryption Administration Office (OSCCA). The sales office should also report the sales status to OSCCA or its local office to register by the end of each quarter.

### ***Intellectual Property Rights (IPR)***

U.S. safety and security companies will greatly benefit from improved IPR protection and increased transparency initiated by the Chinese government. However, U.S. companies should still take precautions to guard their IPR by ensuring the proper protection to restrict illegal copying or distribution of their products.

In addition, it is recommended that U.S. companies establish a clear strategy to handle the challenges of protecting their IPR in a complex legal environment. More specifically, companies should consider how to structure their business transactions to minimize the risk of intellectual property theft and how to protect and enforce their rights in the most cost effective way.

The regulation "Computer to Pre-install Authorized Operating System Software Products Notice," jointly issued by MII, National Copyright Administration (NCAC), and Ministry of Commerce (MOFCOM) requires that PCs, whether made or sold in China, have authorized operating systems software products pre-installed. The Chinese government views these steps as indicators of its resolution on IPR protection, presenting new opportunities for the growth of software companies.

For more details on China's IPR environment, please refer to the materials located in the "China IPR Toolkit" located at the following site: <http://beijing.usembassy-china.org.cn/ipr.html>

### ***Sector Regulations***

China requires manufacturers to obtain the China Compulsory Certification (CCC) mark for products covered in the CCC before exporting to or selling in the China market. The CCC mark regulations serve to safeguard China's national and public interests, which is derived from relevant laws and regulations covering product safety licensing and quality certifications. This certification requirement impacts many U.S. exporters, across a wide range of manufacturing sectors including information security products. Products not meeting CCC requirements may be held at the border by Chinese customs and will be subject to other penalties.

The mandatory CCC mark for safety and security products directly affects this sector. According to China's Certification and Accreditation Administration, there are 22 catalogs of products, including four types of safety and security products on the compulsory certification list. Beginning May 1, 2009, uncertified information security products on the compulsory certification list will be prohibited to be transferred, sold, imported, or used.

**For more details on the CCC Mark, please refer to:**

- Industry policy and regulation details:  
[www.cnca.gov.cn/cnca/zwx/flfg/default.shtml](http://www.cnca.gov.cn/cnca/zwx/flfg/default.shtml)
- The assigned labs providing mandatory CCC testing and inspection services:  
[www.cnca.gov.cn/cnca/rdht/qzxcprz/jcgglij/images/20070123/1001.htm](http://www.cnca.gov.cn/cnca/rdht/qzxcprz/jcgglij/images/20070123/1001.htm)

*Information, **in Chinese only**, can also be found at:*

- Mandatory China Compulsory Certification (CCC) catalogues and description:  
[www.cnca.gov.cn/cnca/zwx/ggxx/images/20070425/1701.pdf](http://www.cnca.gov.cn/cnca/zwx/ggxx/images/20070425/1701.pdf)
- The official organizations providing mandatory CCC services are:  
[www.cnca.gov.cn/cnca/rdht/qzxcprz/jcgglij/images/20070123/1000.htm](http://www.cnca.gov.cn/cnca/rdht/qzxcprz/jcgglij/images/20070123/1000.htm)

**Trade Events**

International Soft China 2008  
Beijing, June 12-14, 2008  
[www.ciw.com.cn/z/12soft/index.html](http://www.ciw.com.cn/z/12soft/index.html)

The 4th China (Nanjing) International Software Products Expo  
Nanjing, September 23-25, 2008  
[www.cis-expo.com](http://www.cis-expo.com)

**Resources & Key Contacts**

Ministry of Industry and Information Technology (MIIT)  
13 Xi Chang An Road  
Beijing 100804, China  
T: (86 10) 6601 2323  
[www.miit.gov.cn](http://www.miit.gov.cn)

United States Information Technology Office (USITO)  
Room 516, Fortune Plaza Office Tower, Chaoyang  
Beijing 10020, China  
T: (86 10) 6530 9368  
[www.usito.org](http://www.usito.org)

**For More Information**

The U.S. Commercial Service in Shanghai, China can be contacted via e-mail at: [Jane.Shen@mail.doc.gov](mailto:Jane.Shen@mail.doc.gov); Phone: (86 21) 6279 7630; Fax: (86 21) 6279 7639 or visit our website: [www.buyusa.gov/china](http://www.buyusa.gov/china).

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