



# China: Safety and Security Market

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## Summary

China's safety and security market has averaged 20 percent annual growth the past several years, generating over US\$17 billion in sales in 2006. As one of the world's fastest growing economies, China is undertaking numerous large-scale projects nationwide including airports, sports stadiums, and metro systems which will entail the installation of extensive security systems. In addition, a number of initiatives have been undertaken in municipalities to install emergency response systems to improve security and bolster response times. On a consumer level, a growing affluent class has contributed to rising demand for high quality residential security equipment and services. While US firms enjoy a solid reputation in the high end of the market, the safety and security market in China remains very fragmented, with over 15,000 small local enterprises active in this sector. Before selling into China, US exporters need to be aware of required China certification requirements as well as potential US export controls. Overall the sector is expected to maintain rapid growth, expanding to US\$28.5 billion in 2010. As a result, opportunities for US exporters of safety and security will continue to grow in the coming years.

## Market Demand

This report covers the developments within China's safety and security market, focusing on video surveillance, door access, and burglarproof alarm equipment. Since fire safety is a comparatively isolated sub-sector, this report does not include details on that sector.

Demand for safety and security products is still highest in China's coastal regions, in particular the Pearl River Delta, the Yangtze River Delta, and the Beijing-Tianjin Metropolitan Cluster. Given the nation's fast growing economy and massive construction projects, demand for safety and security products remains high. China's public sector is a strong market segment for safety and security products, particularly for such agencies dealing with finance, customs regulations, education, and transportation, as well as for public facilities, such as museums and stadiums.

Other important markets include high-end residential areas and commercial office buildings, which typically install sophisticated surveillance equipment for monitoring and controlling access, while employing security personnel to monitor the equipment. Manufacturing and warehouse facilities also install a range of safety and security equipment to protect against worker mishaps and control for theft. The events of September 2001 also led to an increased awareness for improved security measures. As a result, China invested US\$130 million in enhancing anti-terrorism measures, much of it related to the nation's air security. Surveillance and access control have also been implemented in seaports, railways, and airports, to secure cross-border areas, and protect the safety of shipped goods and traveling passengers.

In addition, China's central government is promoting and deploying several nationwide projects including State Emergency Response Systems, City Emergency Forecast and Alarm Systems, and Safe City Construction. These projects involve the installation of a city-wide infrastructure of security, surveillance, and alarm systems as part of a strategy for more effectively maintaining order and stability. Other initiatives that are driving the demand for large-scale safety and security infrastructure projects include such large and high visibility events as the Beijing 2008 Olympic Games, the 2010 World Expo in Shanghai, and the 2010 Asian Games in Guangzhou.

## Market Data

The creation of a platform to integrate the various components and systems of a safety and security infrastructure are still at an initial stage of development within China. A common perspective is that regulations and policies for the safety and security sector need to be developed further, particularly in the area of alarm operations, consulting services, and inspection and certification services. But just as importantly, this development needs to be done in a balanced and planned manner. An additional challenge is that safety and security sector, which is still highly regulated and closely controlled by the Ministry of Public Security, also falls under the jurisdiction of provincial and municipal governments which may have their own certification requirements.

In addition, the safety and security market in China is currently lacking in high-end and high-value-added domestic products. This is an important consideration given that the primary factors for selecting safety and security solutions within the China marketplace tend to be price, brand name, and product credibility and capability. The majority of the local enterprises in this sector are private companies, with low-end technology and without dominant market share. An analysis of the overall safety and security market reveals that equipment comprises 47 percent of revenue generated, while safety and security engineering and consulting services account for 53 percent.

Three important sectors in China's safety and security equipment market are: video surveillance equipment, door access, and burglarproof alarm equipment.

### Video surveillance equipment

In 2006, video surveillance equipment was the fastest growing portion of China's safety and security equipment market, and reached a market size of US\$1.4 billion, a 45 percent annual increase over 2005. Approximately 80 percent of video surveillance equipment is sold for commercial offices, including financial institutions, shopping malls, and transportation facilities. In the public security field, video surveillance equipment has been widely applied in a range of infrastructure projects, such as airports, correction facilities, and the safe city initiatives. In addition, college campuses and upscale residential areas are important emerging markets for video surveillance solutions.

Integrated infrared digital video recorder (DVR) with daytime and night versions are popular in the China market, as the market moves towards DVRs that offer higher definition, improved spherical and wide range capabilities, and longer durations. Top video surveillance product brands like Pelco, Bosch, Panasonic, Sony, and Axis have entered the China market, while products from Taiwan and Korean target more of the mid-end market. According to the China Public Security portal ([www.cps.com.cn](http://www.cps.com.cn)), China has 362 video camera manufacturers, 272 DVR manufacturers, and 310 monitor manufacturers, all of whom primarily target the low-end market. China's Web-based DVR products mainly use H.264 and MPEG-4 formats, while some high-end products use M-JPEG format.

In China, analog video surveillance cameras currently dominate the market because of limited Web capabilities for supporting transmission of large amounts of video data and information. But Web-based video surveillance is expected to grow substantially in the future. Currently, digital Web-based video surveillance has been applied extensively in such sectors as public security, transportation, finance, education, and inspection and quarantine. As telecom carriers and cable TV carriers enter the Web-based video surveillance fields, the construction costs for installing surveillance equipment have decreased. Moreover, since 2004, when China's Ministry of Public Security and Ministry of Science and Technology began promoting "Safe City" projects, the development of Web-based video surveillance applications has expanded into a number of diverse industries. For example, Shanghai plans to install over 200,000 surveillance cameras as part of a city-wide "Social Protection and Surveillance System" before the 2010 World Expo.

### Door access and burglarproof alarm equipment

In 2006, the market size of door access systems reached US\$328 million in China, a 22 percent increase over 2005. Market demand for door access systems are mainly driven by city construction projects, transportation systems, tourism sites, and sports stadiums. As for geographic aspects, Beijing, Shenzhen, Guangzhou, Shanghai, Hangzhou, Nanjing, Tianjin are the dominant localities due to high demand created by large infrastructure projects and as well as public events. In terms of products, there are more than 200 door

access products manufacturers and distributors/resellers nationwide. US companies currently dominate the top-end of the market; Europeans firms have a larger presence with mid-quality products; and local firms control the low-end.

Non-touch ID cards are also becoming widely used in the door access control systems in China. The importance of this development is demonstrated in the Chinese government's 11<sup>th</sup> Five-Year Plan (2006-2010), which specifically highlights research of biometrics application in the door access systems. Moreover, RFID technology is increasingly used for ID card readers in the non-touch ID card application field. ID biotechnologies, anti-counterfeiting technologies, and UHF RFID technologies are being developed and deployed widely across China. For example, government of China's national ID Card Program is expected to be one of the largest RFID projects in the world, and will involve RFID chips embedded in more than one billion ID cards.

Burglarproof alarm equipment is composed of both detectors and alarms. The integration of burglarproof alarm equipment with other safety and security equipment is another trend taking place. China's Public Security Ministry and its branches (Public Security Department and Public Security Bureaus) are the direct supervisory government authority responsible for the safety and security industry. By teaming up with the China's Public Security Bureaus and police stations, China's telecommunications carriers are exploring opportunities in the emerging market of Web-base video surveillance integrated with burglarproof alarm systems.

### **Best Prospects**

Much of the safety and security demand will focus on the integration of high-tech equipment, such as digital technology, security guard communication systems, network technology for inspection control systems, and warning systems. The high-end of China's safety and security market is dominated by foreign products and services. US-based multinational corporations and their partners are very strong in China's high-end safety and security market, creating a competitive environment for potential industry competitors.

The Chinese government's 11<sup>th</sup> Five-Year Plan identified a number of critical changes that are expected to occur in China's safety and security industry in the near future.

- The convergence of security needs by insurance, construction, IT, and property industries will further spur growth in this sector
- The market requirement structure will change dramatically, with consumer purchases of security equipment increasing significantly
- Online operation services will increase and account for more market share
- Surveillance and alarm systems will be implemented based on the creation of large Network Control Centers
- Customized products for defined market segments will require greater cooperation among enterprises

### **Key Suppliers**

As stated previously, China's Public Security Ministry is the supervisory government authority for the safety and security industry in China. The China Safety and Security Products Industry Association (CSPIA) works with provincial and municipal safety and security industry associations to issue capability licenses for engineering companies that handle the installation of safety and security equipment.

By the end of 2007, 408 companies had received capability licenses from CSPIA and 4,684 companies received had licenses from local industry associations. In addition, China has 147 enterprises and 243 products that have received the China Compulsory Certification (CCC) certification. To check the capability information of Chinese safety and security companies, please refer to the CSPIA website:

[www.21csp.com.cn](http://www.21csp.com.cn).

In China, American safety and security products are well-known for their high quality and level of service. Leading US companies holding the high-end market in the China market include:

- 3M
- GE
- Honeywell
- Ingersoll Rand
- Motorola
- Pelco
- Tyco
- UTC

## Market Entry

The security industry is still at the center of several regulatory issues. Regarding restrictions imposed by the US government, provisions of the Tiananmen Sanctions against China are still in effect, prohibiting the sale of certain crime control items to the Chinese military and police. Often times, a re-export license must be obtained from the Department of Commerce before exporting for end-use in China.

The US Department of Commerce's Bureau of Industry and Security (BIS) is responsible for implementing and enforcing the Export Administration Regulations which regulate the export and re-export of most commercial items. These regulations pertain to items that are "dual-use" – items that have both commercial and military or proliferation applications – as well as other purely commercial items without an obvious military use. The BIS Exporter Services Division is responsible for counseling exporters, conducting export control seminars, and drafting and publishing changes to the Export Administration Regulations. It is also responsible for licensing and compliance actions relating to the special comprehensive license, and for administering the processing of license applications and commodity classifications.

In terms of restrictions by China's central government, China's Ministry of Public Security oversees the trade of all security products as well as the police, fire, and other emergency services departments. Certain intruder alarm systems need the China Compulsory Certification (CCC) mark from the China Certification Center for Security and Protection before they can be sold in China. More details on the CCC mark are covered in the section regarding "Sector Regulations."

In addition, the safety and security sector remains a highly regulated industry in China. In most cases, when local safety and security engineering companies are awarded tenders for large projects, they need to then source the required products. US exporters should look for opportunities to provide products and partner with these local Chinese engineering firms which often have strong connections with the Chinese government. Moreover, such a partnership provides additional advantages in that these Chinese firms are often better positioned to more readily process and obtain all required certifications.

## Market Issues & Obstacles

**Intellectual Property Rights (IPR):** US safety and security companies will greatly benefit from improved IPR protections and increased transparency undertaken by the Chinese government. However, US companies should still take precautions to protect their IPR by ensuring that they have undertaken the proper protections to restrict illegal copying or distribution of their safety and security products.

In addition, it is recommended that US 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 risks of intellectual property theft and how to protect and enforce their rights in the most economical and cost effective way.

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 catalogue before exporting to or selling in the China market. The CCC mark regulations serve to safeguard China's national and public interests, and are derived from relevant laws and regulations covering product safety licensing and quality certifications. This certification requirement impacts many US exporters, across a wide range of manufacturing sectors including safety and 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 the China's Certification and Accreditation Administration, there are 22 catalogues 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/zwxx/flfg/default.shtml](http://www.cnca.gov.cn/cnca/zwxx/flfg/default.shtml)

The assigned labs providing mandatory CCC testing and inspection services:  
[www.cnca.gov.cn/cnca/rdht/qzxcprz/jcigglijg/images/20070123/1001.htm](http://www.cnca.gov.cn/cnca/rdht/qzxcprz/jcigglijg/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/zwxx/ggxx/images/20070425/1701.pdf](http://www.cnca.gov.cn/cnca/zwxx/ggxx/images/20070425/1701.pdf)

The official organizations providing mandatory CCC services are:  
[www.cnca.gov.cn/cnca/rdht/qzxcprz/jcigglijg/images/20070123/1000.htm](http://www.cnca.gov.cn/cnca/rdht/qzxcprz/jcigglijg/images/20070123/1000.htm)

### **Trade Events**

2008 China International Exhibition on Public Safety and Security  
Beijing, December 9-12, 2008  
[www.securitychina.com.cn](http://www.securitychina.com.cn)

The 8<sup>th</sup> Shanghai International Public Safety and Security Products Expo  
Shanghai, May 22-25, 2008  
[www.sh-anfang.org](http://www.sh-anfang.org)

APCO 74<sup>th</sup> Conference and Expo 2008  
Kansas City, MO, USA  
August 3-7, 2008  
[www.apco2008.org](http://www.apco2008.org)

### **Resources & Key Contacts**

China's Ministry of Public Security  
14 Dong Chang An Street  
Beijing 100741, China  
[www.mps.gov.cn](http://www.mps.gov.cn)

United States Bureau of Industry and Security (BIS)  
US Department of Commerce, Washington DC 20230  
Tel: (202) 482 4811  
Fax: (202) 482 3322  
[www.bis.doc.gov](http://www.bis.doc.gov)

### **For More Information**

The US 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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