

INTRODUCTION

The Company, a Sino-foreign joint stock limited company incorporated under the laws of the PRC with limited liability, was established on 29th March, 2000. The Company is one of the leading software developers and integrated circuit designers in the PRC with expertise in developing software application and designing integrated circuits for embedded system. The Directors believe that, with the application of software and integrated circuits, the Company's embedded systems have optimal performance in terms of functionalities, power consumption, system minimisation and reliability. Currently, the Company employs over 70 research and development staff in offices in Beijing and Shenzhen, the PRC, conducting research and development of embedded technology and embedded system products. The Company is also engaged in the design, manufacture, marketing and sale of the embedded system products which apply the Company's software and integrated circuits including ASIC, Network Security Products, Smart Card Application System, GPS Application System and WFAS. The Company is also engaged in the provision of total solutions to address the specific needs of each customer through the application of its existing embedded system products.

HISTORY AND DEVELOPMENT

In November 1992, Jade Bird Software, a state-owned enterprise in the PRC, was established as a wholly-owned subsidiary of Peking University. Since its establishment, Jade Bird Software has been headed by Prof. Yang Fu Qing, a non-executive Director. Jade Bird Software is principally engaged in the research and development of fundamental software and investment in IT related businesses.

In February 1993, Yu Huan, a state-owned enterprise in the PRC, was incorporated, and is wholly-owned by Peking University. Since its establishment, Yu Huan has been headed by Prof. Wang Yang Yuan, a non-executive Director and Prof. Liu Yue (after 1996), an executive Director. Yu Huan is principally engaged in research and development of ASIC designs and the development of advanced microelectronic instruments for IC measurement.

In November 1994, Jade Bird was established as a limited liability company in the PRC. Peking University, through Jade Bird Software, has approximately 46% equity interests in Jade Bird. Since its establishment, Jade Bird has been headed by Prof. Yang Fu Qing, a non-executive Director and Mr. Xu Zhen Dong, the chairman of the Company and an executive Director. Jade Bird is engaged in, inter alia, research and development of Network Security Products.

In January 1995, 北京北大青鳥福霖電信系統有限責任公司 (Beijing Beida Jade Bird Fulin Communication Company Limited) (hereinafter called "Jade Bird Fulin") was set up and was owned as to 50% by Jade Bird and as to 50% by 中國福霖風能開發公司 (Fulin Wind Power Development Company) (hereinafter called "Fulin Wind Power"). Jade Bird Fulin was engaged in research, development, manufacture and marketing of GPS Application System. In August 1995, Jade Bird acquired and Fulin Wind Power sold 50% interest in Jade Bird Fulin which then became wholly-owned by Jade Bird and has renamed as 北京北大青鳥通訊技術有限責任公司 (Beijing Beida Jade Bird Communication Technology Company) (hereinafter called "Jade Bird Communication").

In September, 1996, Jade Bird Software Company Limited was established with limited liability, and is owned as to 40% by Jade Bird and as to 60% by Jade Bird Software. Jade Bird Software Company Limited is principally engaged in research and development of Jade Bird CASE software development tools (“JB-CASE”), which were previously developed and owned by Peking University.

In September 1998, Peking University transferred its ownership of the Factory, a state-owned enterprise wholly-owned by Peking University, to Jade Bird Software.

In December 1998, Jade Bird acquired approximately 16.76% interest in Beijing Tianqiao, a joint stock limited liability company whose shares are listed on the Shanghai Stock Exchange, by way of injection of assets. Since then, Beijing Tianqiao has been principally engaged in the operation of department stores in the PRC and design, development, manufacture and marketing of business automation systems and bank funds clearing and payment systems. In June 1999, Beijing Tianqiao acquired the entire equity interest in Jade Bird Communication from Jade Bird.

In December 1998, as part of the Reorganisation of the Jade Bird Group, Jade Bird acquired the entire equity interest of the Factory from Jade Bird Software. The transfer was given approval by the State Administration of State Asset on 13th October, 1998. By a business registration certificate dated 10th March, 2000, the Factory was formally registered as a branch of Jade Bird. It was engaged in the manufacture and marketing of Smart Card Application System, WFAS and other security products.

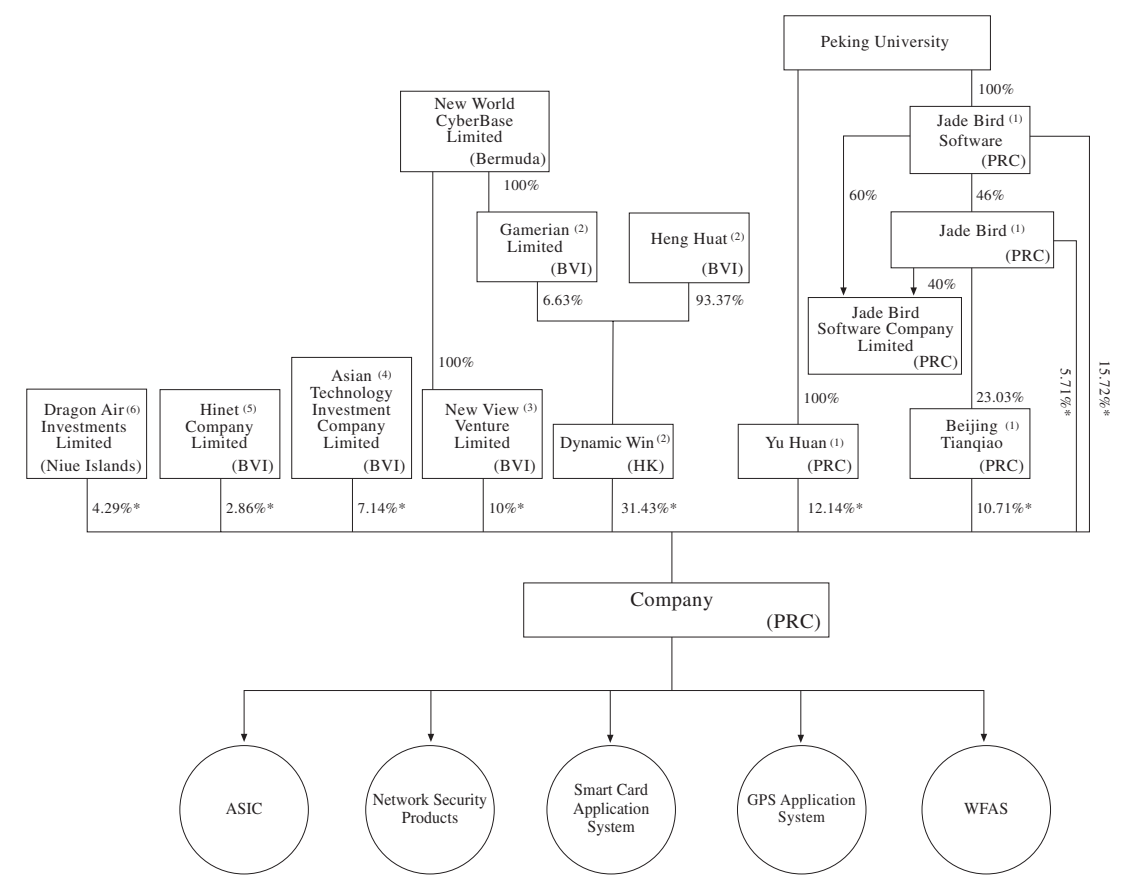
On 4th January, 2000, a promoters’ agreement (“Promoters’ Agreement”) was entered into between Jade Bird Software, Jade Bird, Beijing Tianqiao, Yu Huan, Dynamic Win, New View Venture Limited, Asian Technology Investment Company Limited, Dragon Air Investments Limited and Hinet Company Limited for the establishment of the Company as a Sino-foreign joint stock limited liability company for the purposes of listing the H Shares on GEM. Pursuant to the Promoters’ Agreement, the Four Domestic Promoters, Dynamic Win, New View Venture Limited, Asian Technology Investment Company Limited, Dragon Air Investments Limited and Hinet Company Limited agreed, inter alia, to subscribe for approximately 44.27%, 31.43%, 10%, 7.14%, 2.86% and 4.29% interests respectively in the Company.

As part of the Reorganisation for the purposes of listing of the Company, the Predecessor Entities as transferors transferred the entire businesses and operations which include all the technological materials, research and development staff, assets, liabilities and business operations of ASIC, Network Security Products, Smart Card Application System, GPS Application System and WFAS (altogether, “Transferred Businesses”) respectively to the Company as transferee pursuant to four business transfer agreements all dated 17th April, 2000.

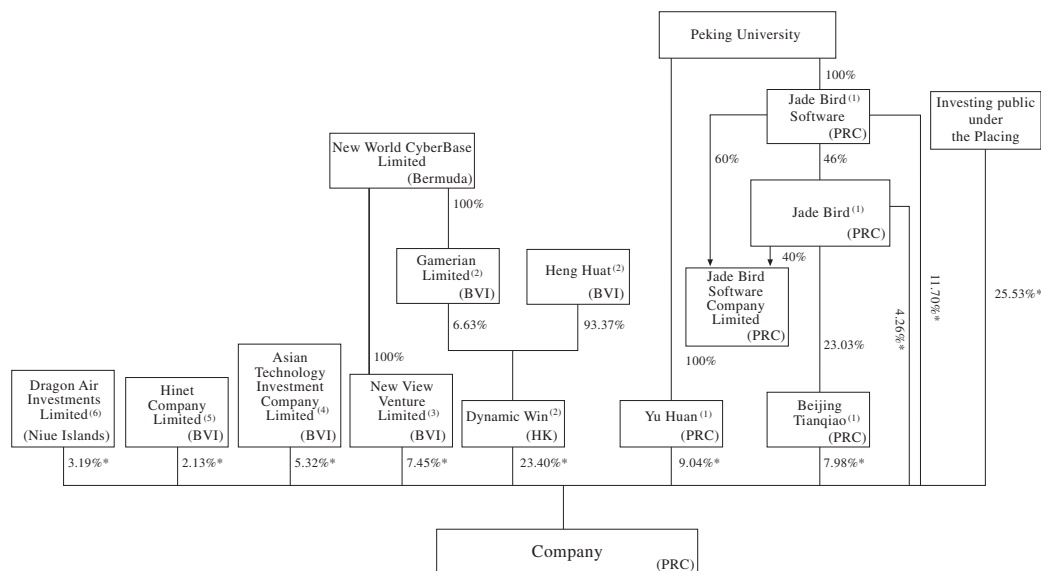
On 17th April, 2000, the Company completed the Reorganisation whereby the Company became the owner of the entire businesses and operations of the Transferred Businesses.

SHAREHOLDING AND CORPORATE STRUCTURE

On 17th April, 2000, the Company completed the Reorganisation in preparation for the listing of the H Shares on GEM, as a result of which the Company became the owner of the entire businesses and operations of the Transferred Businesses. Details of the Reorganisation are set out in the paragraph headed “The Reorganisation” in Appendix 5 to this prospectus. The shareholding and the main business activities of the Company immediately prior to the Placing are set out below:



Upon the listing of the H Shares on GEM, the shareholding of the Company are set out below:



Notes:

- (1) The Four Domestic Promoters are respectively controlled by Peking University through either controlling directly or indirectly the exercise of 30% or more of the voting power at the general meetings of each of the Four Domestic Promoters or the composition of the majority of the board of directors (representing 50% or more of the total number of directors comprising the board) of each of the Four Domestic Promoters. Upon listing of the H Shares, Peking University, through its interests in the Four Domestic Promoters which altogether hold approximately a 33% (excluding any additional H Shares resulting from the exercise of the Over-allotment Option) shareholding in the Company, is the ultimate controlling shareholder of the Company. Peking University controls indirectly the majority of directors of the board of Beijing Tianqiao.
- (2) Dynamic Win, which became a shareholder of the Company in March 2000, is owned as to approximately 6.63% by Gameraian Limited, a wholly-owned subsidiary of New World CyberBase Limited, the securities of which are listed on the Main Board, and as to approximately 93.37% by Heng Huat. Heng Huat, a company incorporated in BVI, the entire issued share capital of which is held by three of the executive Directors as the trustees for the benefits of the qualified employees of the Jade Bird Group and the Company.
- (3) New View Venture Limited, which became a shareholder of the Company in March 2000, is incorporated in BVI and wholly-owned by New World CyberBase Limited.
- (4) Asian Technology Investment Company Limited, which became a shareholder of the Company in March 2000, is an investment holding company incorporated in BVI and wholly-owned by AR Asia Special Strategies Fund Limited.
- (5) Hinet Company Limited is incorporated in BVI and the entire equity capital of which is owned as to 40% by Mr. Chao Zhong, as to 30% by Mr. Wang Yang Nin and as to 30% by Mr. Ma Jun Li who are strategic investors and are independent third parties not related to the Directors and its controlling shareholder. Hinet Company Limited became a shareholder of the Company in March 2000.
- (6) Dragon Air Investments Limited is incorporated in Niue Islands and the entire equity capital of which is owned as to 50% by Mr. Zhang Ya Ping and as to 50% by Mr. Li Jun Ying who are strategic investors and are independent third parties not related to the Directors and its controlling shareholder. Dragon Air Investments Limited became a shareholder of the Company in March 2000.

* Shareholding percentage is rounded to the nearest two decimal places.

BUSINESS

Set out below is the summary of the shareholding percentage held by the Promoters in the Company immediately prior to and after the Placing:–

Promoters	Approximate percentage of shareholding of each Promoter immediately before the Placing ⁽²⁾	Approximate percentage of shareholding of each Promoter immediately after the Placing ⁽¹⁾
Dynamic Win	31.43%	23.40%
Jade Bird Software	15.72%	11.70%
Yu Huan	12.14%	9.04%
Beijing Tianqiao	10.71%	7.98%
New View Venture Limited	10.00%	7.45%
Asian Technology Investment Company Limited	7.14%	5.32%
Jade Bird	5.71%	4.26%
Dragon Air Investments Limited	4.29%	3.19%
Hinet Company Limited	2.86%	2.13%

Notes:

- (1) Based on the assumption that the Over-allotment Option has not been exercised and no additional H Shares have been issued.
- (2) Shareholding percentage is rounded to the nearest two decimal places.

The Company's operations including administrative functions, sales and marketing and research and development are located in the PRC.

EXISTING OPERATIONS

The Company's existing operations can be largely categorised into the development and design of embedded technology, the development of embedded system products applying the Company's software and, where applicable, the Company's integrated circuits. The Company is also engaged in the provision of total solutions to address the specific needs of each customer through the application of its existing embedded system products.

Embedded technology

The Company is one of the leading embedded system developers in the PRC with expertise specialising in software development and design of integrated circuits for use in embedded system products. Embedded systems consist of a microprocessor and related software dedicated to a specific task or set of tasks and are found in many products such as ASIC, Network Security Products, Smart Card Application System, GPS Application System and WFAS.

Contrary to pure software programming or pure hardware implementations, the Company's embedded technology is based upon software-hardware hybrids. With such proprietary embedded technology, the Company may, depending on requirements of the product, develop system-level solutions on a single chip. Work begins by establishing requirements for the system and then partitioning them into software and hardware sections. The software and hardware constituents are developed concurrently to meet specified performance, cost and/or other special constraints. This is known as co-design, which includes hardware/software co-specification, partitioning, communication, co-simulation and co-verification. The embedded system developed in this manner has higher reliability, performs more effectively and efficiently and results in a smaller size. Details of the Company's embedded software and hardware development are set out as follows:-

(1) Software

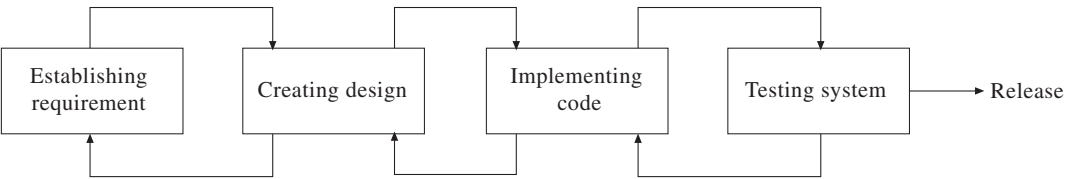
The Company develops its embedded systems through the application of JB-CASE which is a group of software development tools developed by Jade Bird Software Company Limited and licensed for the non-exclusive use by the Company pursuant to a JB-CASE technology licence agreement dated 17th April, 2000, details of which are set out in the sub-section headed "Connected transactions" under the section headed "Relationship with Peking University" in this prospectus.

The primary functions of JB-CASE are: (i) to provide a favourable software development environment for software developers; (ii) to automatically record the whole software development process; (iii) to provide multiple user interface for software development thereby allowing a team of software developers to work simultaneously; and (iv) to provide maintenance supports for the whole software development process.

The advantages of using JB-CASE to develop the Company's software include: (i) its ability to streamline software development process thereby lowering complexity; and (ii) its efficiency and reliability. In 1996, 1998 and 1999, JB-CASE was awarded 國家科技進步二等獎 (The Second Prize of State Technological Achievement), 國家「八五」科技攻關重大科技成果獎 ("Eighth Five" State's Substantial Technology Achievement Award) and 中國軟件行業協會中國優秀軟件產品 (China Software Industry Association Honorary Award of China excellent software products), respectively, prestige awards recognising JB-CASE's distinctive achievement as software development tools.

The Company’s software development process includes several basic programming activities, namely, establishing requirements, creating design, implementing code and testing system. JB-CASE allows a software developer to cycle through the different development activities.

Establishing requirements, creating design, implementing code and testing system can be revisited, allowing proper changes to be made when needed. The following diagram illustrates a typical flow of the Company’s software development process:



Establishing requirement: software requirements specify what a program must accomplish. They indicate the tasks that a program should perform but not how to perform them;

Creating design: a software design specifies how a program will accomplish its requirements. The design lays out the classes and objects needed in a program and defines how they interact;

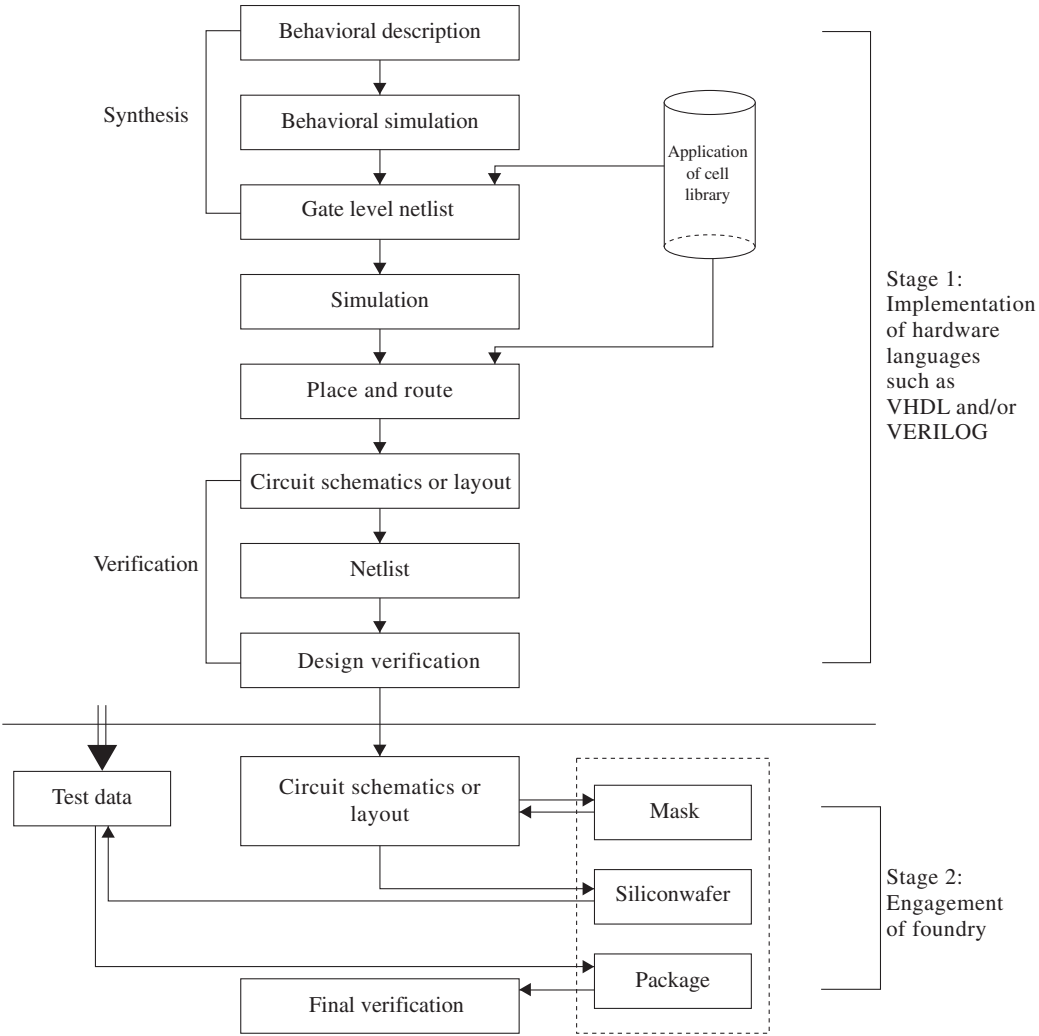
Implementing code: implementation is the process of writing source code. More precisely, implementation is the act of translating the design into a particular programming language; and

Testing system: testing a program involves running it multiple times with various input and observing the results. The goal of testing is to find errors.

(2) *Hardware*

For embedded hardware, the Company (i) designs the hardware architecture and the positioning of PCB; and (ii) develops ASIC and advanced microcomputer components at various levels of integration. The Company’s hardware system design comprises three elements: (i) design of circuit logic map; (ii) creation of netlist; and (iii) design of PCBs.

The design and development of ASIC and microprocess components involve the design of chips. At present, the Company utilises electronic design automation software design tools (“EDA”) which provide the Company’s designers with a favourable design environment for the development of chip. The IC design process, based on the top-down approach can be principally divided into two stages. A typical flow chart of the design process is set out below:



Stage 1

Behavioral description: refers to the usage of VHDL and/or VERILOG hardware-description languages to describe the functionality and operation of the module.

Behavioral simulation: refers to the application of accurate and fast analysis tools such as CAD and EDA in designing ICs and to determine the value of the design parameters. During this process, the EDA will produce test data to be used for testing the correctness of the ICs’ functionality in stage 2.

Gate level netlist: refers to the structural mode of register transfer level netlist in which a design is described as a connection of functional modules. Synthesis that represents a translation from a behavioral specification of a design entity into a structural description is involved at this level. A standard-cell library built by the Company that contains a wide selection of logic gates over a range of fan-in and fan-out counts is also employed at this level.

Simulation: refers to circuit, timing, switch-level, gate-level and functional simulation. Simulation process tells how the circuit reacts under a given set of input excitations.

Place and route: assembles the complete artwork and connects the core of the chip to the input-output pads. The standard-cell library is also employed at this level.

Circuit schematics or layout: refers to a physical representation of the computer design and the arrangement of the circuits.

Netlist: refers to the design description as to the connection of functional modules.

Design verification: refers to electrical, timing and functional verifications. Since simulation results do not guarantee the correctness and functionality of a hardware design, tools have to be employed for verification to analyse the design and detect configurations that may lead to circuit failure.

Stage 2

Mask: following the design verification, circuit schematics or layout is sent to foundry for the production of the mask.

Siliconwafer: upon satisfaction of the testing results, the mask will be re-sent to the foundry for the production of siliconwafers.

Test data: following production of siliconwafers, the siliconwafers are tested against the test data produced in stage 1.

Package: refers to the means of bringing signal and supply wires in and out of the circuit. It also removes the heat generated by the circuit and provides mechanical support. Finally, it also protects the circuit against environmental constituent.

Final verification: refers to the testing for the functionality and performance specifications of manufactured circuits. This step is to ensure that the manufactured component base on the correct design will be fully operational.

With the use of EDA to synthesize one or more modules from library with a specific logic, the Company is able to shorten significantly the product development and design cycles of the ICs. Both electronic design tools and cell/module library are owned by the Institute of Microelectronics of Peking University. To facilitate the continuity of the Company's hardware design and development, the Company and the Institute of Microelectronics of Peking University have entered into a technical equipment rental agreement on 17th April, 2000, pursuant to which the Institute of Microelectronics of Peking University has agreed to grant to the Company a right to use certain electronic design equipment as well as cell/module library for a term of 5 years in relation to the design and development of ICs by the Company, details of which are set out in the sub-section headed "Connected transactions" under the section headed "Relationship with Peking University" in this prospectus.

To keep abreast of rapid development of embedded technology, the Company hires a team of 25 research and development staff to engage in extensive embedded technology study, of which 7, 14, and 4 staff work in area of hardware development, software development and IC respectively.

Products

(1) ASIC

The Company is engaged in the design, development, manufacture and marketing of ASIC products. Pursuant to the Reorganisation, the Company has entered into a technical equipment rental agreement and JB-CASE technology licence agreement, both dated 17th April, 2000 and pursuant to which, the Company is able to provide computer aided engineering design and technology services and software design tools for the design and development of ASIC to meet the customers' specific functionality and performance requirements, details of which are set out in the sub-section headed "Connected transactions" under the section headed "Relationship with Peking University" in this prospectus. Details of the development of ASIC products are set out in the sub-section headed "Embedded technology" under this section.

The Company provides its customers with ASIC technologies and engineering design services to design customised circuits that offer electronic system manufacturers the benefits of higher levels of circuit integration: improved system performance, reduced system size and lower system cost. The Company has focused its marketing efforts on a broad base of electronic system manufacturers in the PRC. After the Company's sales representatives evaluate a customer's logic design requirements and determine whether there is an application suitable for the Company's ASIC technologies, the next step typically is a visit to the designated customer by the Company's engineers. The Company's sales cycle for the initial sale of a system design is generally lengthy and requires the continued participation of its engineers and sales representatives to ensure the smooth development of the Company's ASIC for application in its customers' end products.

Besides traditional ASIC products, the Company is also able to design and develop ASIC synthesized with cryptographic logics ("Security ICs"). The function of Security ICs is to perform data encryption and decryption and key management leading to a wide use in the IT industry including, in particular, in financial institutions and other network terminals which

require a high level of information security. The Company's Security ICs encode information through a complex mathematical formula called an algorithm. An encryption algorithm has a string of bits which is known as keys to convert the plain text to cipher text (encrypted data) and vice versa. In accordance with the Commercial Cryptographic Administration Regulations, the Company has to make an application to the State Cryptography Control authorities for the approval for production and sales of commercial cryptographic products. In 1999, Jade Bird obtained an approval from the State Cryptography Control authorities in respect of the Security ICs ("Security ICs Approval"). On 7th June, 2000, the Company obtained an approval from the State Cryptography Control authorities to have the Security ICs Approval transferred to the Company so that the Company shall have the right to conduct research, production and related business activities in respect of the Security ICs.

(2) *Network Security Products*

The Company is engaged in the research, manufacture and sale of Network Security Products comprising JB-SG2 Security Gateway and related products. JB-SG2 Security Gateway is a kind of electronic network information security system employing the technology of digital signature and network passport. It can effectively ensure the security of information of the user after connecting the internal network with other networks, including the Internet. JB-SG2 Security Gateway adopts the proxy and exit passport techniques, which protect the internal network from attacks by the users of external networks and serve as a firewall. On the other hand, it encrypts the exiting data and verify the exit passport in order to prevent theft or leakage of data from the internal network through the Internet and protect the security of internal information.

The main functions of JB-SG2 Security Gateway are as follows:

1. Adoption of proxy technique for the users of the internal network to visit the external network

The Company's JB-SG2 Security Gateway allows its users to access all important kinds of network services (such as WWW, e-mail, FTP, etc.) in a normal course. Meanwhile, it can avoid the users' internal network from external attacks. The JB-SG2 Security Gateway will receive and check the visitation requests from the users of the external network before allowing such requests access to the internal network. Access to the internal network will only be allowed after the JB-SG2 Security Gateway, having scrutinized the visitation requests, confirms that such requests conform with the specific security requirements of the users. In the meantime, the users of the external network stay outside the external network. In addition, JB-SG2 Security Gateway can effectively hide confidential and sensitive data in the internal network, including the structure of the internal network and the name of the mainframe, which will make it even more difficult for hackers to access the designated internal network.

2. Defense against invasion and destruction from the Internet

JB-SG2 Security Gateway, as the only gateway connecting the internal network with the external network, takes certain precautions, including strict identity authentication and authority verification process, which effectively control visitation from the external network.

3. Adoption of unique exit passport verification mechanism which effectively prevents the leakage of confidential information

All data flowing from the internal network towards the external network must be verified by the exit passport mechanism of the JB-SG2 Security Gateway. Through implementation of the exit passport verification mechanism, data can only exit after they are duly authorized. In this respect, even if unlawful visitors (the hackers) break through the strict identity authentication and authority verification process of the JB-SG2 Security Gateway, its exit passport verification mechanism can effectively prevent the hackers from removing any confidential data from the internal network. In the mean time, its exit passport verification mechanism can also prevent the internal staff from any unauthorised removal of confidential information without the appropriate authorisations. Its verification mechanism will only allows those with the appropriate authorisation to issue the exit passport for the release of information to the external network. It is this exit passport verification mechanism which distinguishes the JB-SG2 Security Gateway from the traditional firewall.

4. A safe channel for external communication

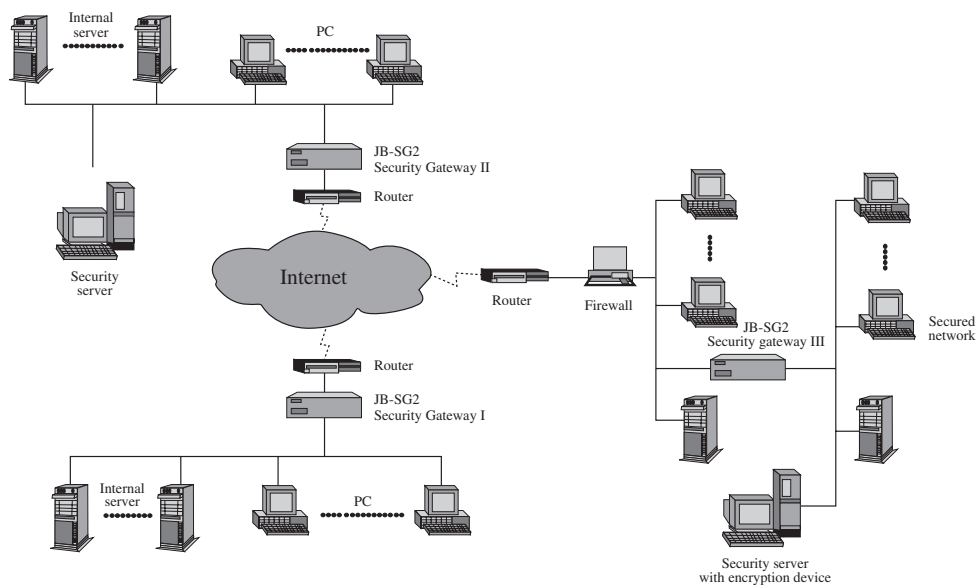
When the users of the internal network send out any e-mails or documents, they can encrypt such e-mails or documents before transmission. Encrypted confidential data are transmitted through the external network, including the Internet, in the form of ciphertext. It can effectively prevent the leakage of such confidential data by way of interception on the Internet. The JB-SG2 Security Gateway can be used with third parties' encryption device/encryption algorithms in designing solutions for different levels of encryption.

The network security system is divided into three parts:

1. JB-SG2 Security Gateway: it separates the internal and external networks. The security gateway proxy technique operates on the security gateway. The security gateway proxy program is responsible for looking after the visitation requests made by external visitors and performing the identity authentication and authority verification for the users and conducting exit passport verification for exiting data.

- 2. Security Server: it is responsible for the issue of exit passport and digital signature. Encryption device can be installed at security server. Depending on the circumstances, the users may install one or more than one security servers into the internal network.
- 3. The Users' Servers: The installation of the JB-SG2 Security Gateway would not affect the normal operation of the users' terminals and servers in the internal network. The users can use any kind of application program without interruption. When the users intend to send out any data, they only need to run the corresponding accessory tool and conduct the identity authentication process with the JB-SG2 Security Gateway.

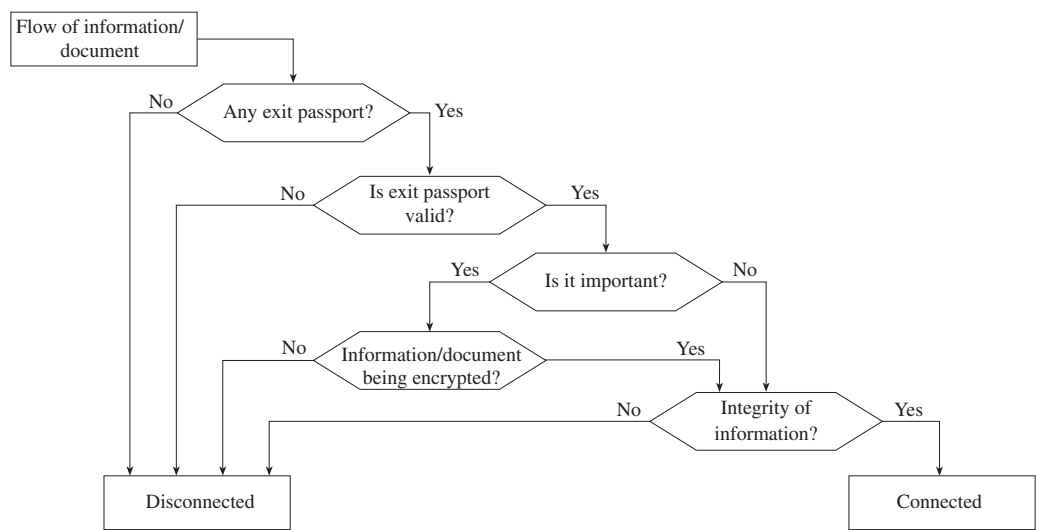
The common applications of the JB-SG2 Security Gateway are illustrated in the following diagram. Such application is mainly to separate the connection between the internal and external users so as to prevent the attacks from the external network and protect the data in the internal network. The user can, depending on the data exit condition, install an appropriate number of the JB-SG2 Security Gateway. Generally speaking, a JB-SG2 Security Gateway should be installed at every data exit connection. The following diagram shows the three common applications of the JB-SG2 Security Gateway:



- | | |
|------------------------------|--|
| JB-SG2 Security Gateway I: | the Company's security gateway characterised by firewall functions. |
| JB-SG2 Security Gateway II: | the Company's security gateway characterised by firewall functions and digital signature system. |
| JB-SG2 Security Gateway III: | the Company's security gateway characterised by firewall functions, digital signature system and encryption/decryption device. |

The major advantages of the Company's JB-SG2 Security Gateway are that it prevents information and data from being sent without the sender having been identified and information and data having been authenticated. It also monitors and audits information or data being released from the LAN onto the Internet. Its monitoring system records all access to and exit from the LAN. JB-SG2 Security Gateway not only provides a common method of security over the Internet with functions similar to a firewall but also possesses the Company's proprietary advanced security technology to ensure security of information.

The following diagram illustrates a typical monitoring and checking process performed by JB-SG2 Security Gateway for information or data flow from internal network to external (outside) network:–



(3) Smart Card Application System

The Company is engaged in the development, design, manufacture and sale of Smart Card Application System comprising smart card readers and related computing systems. To cope with the development of smart card technology, the Company develops and manufactures a wide variety of smart card peripherals and application systems. The Directors believe that, with its proprietary interface technology, the Smart Card Application System will have the following advantages: higher security, quicker transaction time and significant memory capability allowing for multi-purpose applications.

The Company’s smart card readers, together with the related computing system, can be used in various applications including access to restricted areas, point of sales and purchases, identification security, authentication security, asset tracking and labour tracking.

Besides the contact smart card system, the Company developed contactless smart card reader in 1996 which utilises radio frequencies to transfer information. The contactless smart card system can overcome the disadvantages inherent in the contact smart card system which requires contact for the transfer of information in many applications such as high terminal and card maintenance cost. Contactless Smart Card Application System is commonly used in fare collection, office automation and higher level security application system.

(4) GPS Application System

The Company is engaged in the development, manufacture, sale and installation of GPS Application System called “JB-230M Satellite Monitoring System” in the PRC. The overview of the GPS is set out in the paragraph headed “GPS” in the section headed “Industry overview” in this prospectus.

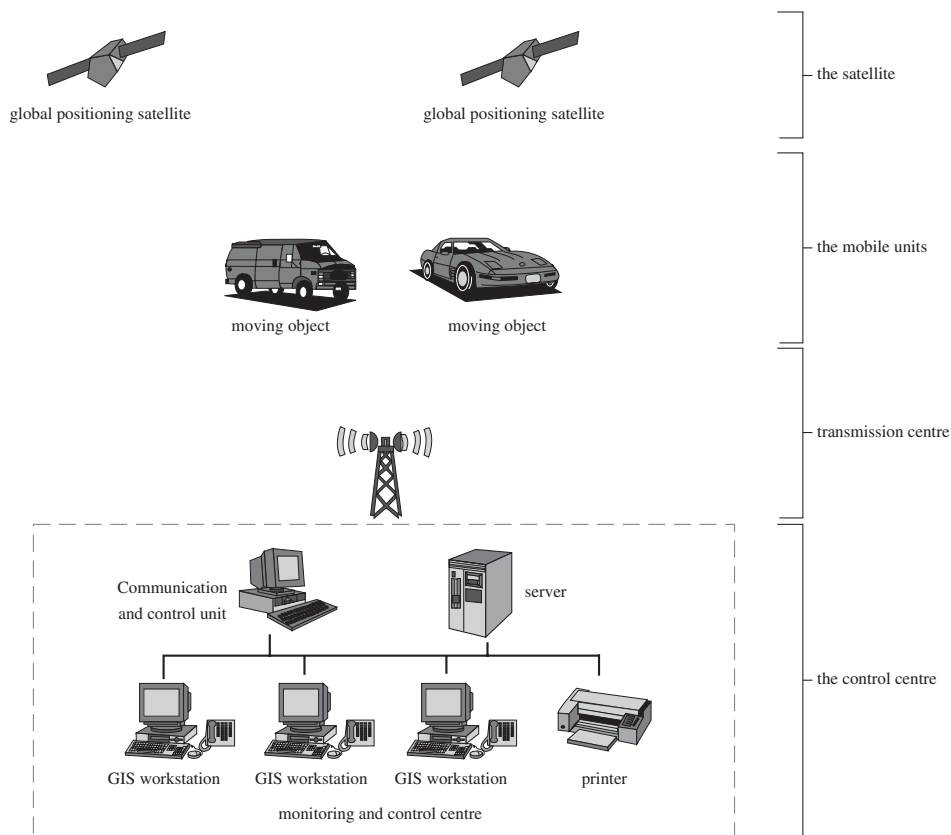
The GPS Application System is a system which applies the GPS technology, the GIS technology and the wireless communication technology. The GPS Application System includes three major elements: (1) the box unit (the “Box”) installed in the moving target; (2) the wireless communication network; and (3) the control centre which tracks, controls, receives and sends information from and to the moving target.

The primary function of the Box is to send out the longitude and latitude information of the locations of the moving terminals to the remote monitoring facility thereby allowing the control centre to keep track of the moving targets’ status and locations. It helps users and the police to locate stolen vehicles with moving terminal. The moving targets’ Box consists of the GPS receiver, the data transceiver component, and the GMSK modem terminal control antenna.

The communication network is composed of many data transmitters and data transmitting controllers, which are used for transmitting instruction data from the control centre to the Box. At the same time, the Box will transmit the data from the Box to the control center. The communication network includes devices such as data receiver, data transmitter, ISDN connector, amplifier, data transmitting controller, sound transceiver and antenna. A transmission centre receives/sends signals from the moving target and sends/receives signals to control centre, a typical data flow of the GPS Application System such that the GPS receiver of the moving target is able to ascertain its position using the orbiting satellites.

The control centre of the GPS Application System consists of GIS workstations, communication controller, ISDN connector and network server, and the GPS differentiation station. Under the monitoring of the control centre, the status signal of the moving target is continuously sent back to the control centre through the 230M cellular mobile communication network so that the location of the moving target can be displayed on a real time basis on an electronic map of the GPS workstations. The GIS workstation operates the GIS geographical information system and performs communication data processing. Its trail monitoring software can selectively show a vehicle’s trail, and automatically set off the alarm or report to the police if unusual circumstances occur.

The following diagram illustrates the basic elements of the GPS Application System:



In addition to the alarm function, the GPS Application System can also provide efficient fleet management, allowing effective controls of time and routes of public vehicles, emergency vehicles, and taxis, etc.

In 1999, the Company entered into an agreement to sell the GPS Application System to Tian Mu. The Company has also entered into the Master GPS Sales Agreement with Tian Mu for a term of 10 years. Pursuant to which, the Company has been appointed as the sole exclusive supplier of the GPS related products to Tian Mu and to provide GPS Application System technical support to Tian Mu. Further details in respect of the Master GPS Sales Agreement are set out in the sub-section headed “Connected Transactions” under the section headed “Relationship with Peking University” in this prospectus.

(5) WFAS

There are two types of fire alarm systems: (i) wire fire alarm system in which signals between control panel and fire sensors are transmitted via wires; and (ii) WFAS in which signals between fire signal transceivers and fire sensors are transmitted via wireless signals. Owing to the differences between the WFAS and the wire fire alarm system, both the false alarm rate and the price of the WFAS are relatively lower and cheaper as compared with the

wire fire alarm system. Hence, the Directors believe that the users are more inclined to use the WFAS.

The Company is engaged in the development, production and sale of WFAS in the PRC. WFAS provides accurate fire detecting and fire alarm functions. All fire sensors accurately analyze the levels of smoke, light and temperature in the detected area. The wireless fire signal transmitter transmits wireless alarm signals to a wireless fire signal transceiver and at the same time, it records data such as time and date, activates the alarm by means of sound and light flashing and shows the fire location on an electronic map. As compared with traditional wire fire alarm system, WFAS are more reliable, economical and versatile. WFAS can be used in places such as ancient buildings, scenic garden or a large group of buildings where the installation of the wire fire alarm system is either not feasible or too expensive.

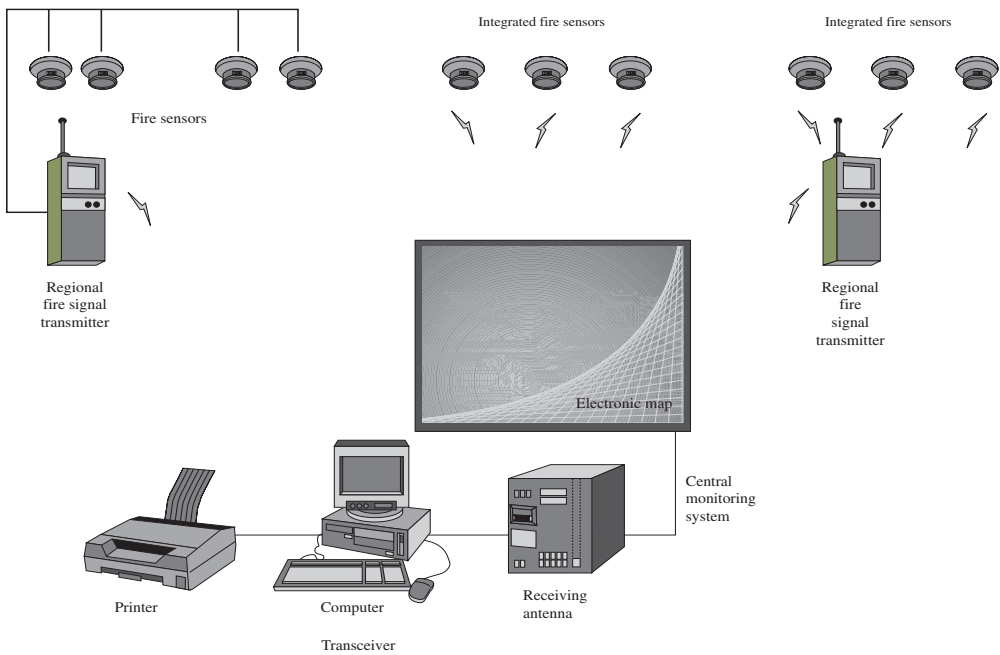
WFAS consists of three main parts: (1) the central monitoring system; (2) the fire signal transmitter; and (3) the fire sensors situated in the protected area.

The central monitoring system consists of the following:

- wireless fire signal transceivers;
- control system monitoring an electronic map;
- prime controlling and monitoring software; and
- an electronic map.

There are different types of fire sensors, for example, smoke sensors and temperature sensors. Different types of sensors are used depending on different circumstances.

The following diagram illustrates a typical operating flow of WFAS:–



When a fire is detected, the fire signal is transmitted from the fire sensors to the fire signal transmitter. After the process of analyzing and compiling the signals into wireless data frequency alarm signals, it will be transmitted to the central monitoring system. The signal is collected and analyzed by the wireless fire signal transceivers. The computers in the central monitoring system will then record, store and analyze the data and determine whether a fire has actually occurred. If the result shows that there is a fire, the central monitoring system will activate the fire alarm.

In 1996, the Company installed the WFAS at certain buildings of the central government in Beijing. Since 1996, WFAS was installed at some other buildings of the central government in Beijing. It is intended by the Company that the first generation of WFAS will be used exclusively in government authorities and the Company intends to market its second generation of WFAS for public use. At present, the use of wireless frequency used by the WFAS has been granted to the Company's present customers. Future customers of WFAS must obtain approval for use of the relevant wireless frequency.

Total solutions services

Taking advantage of the technical knowhow accumulated in the development of embedded systems, the Company also provides total solutions services to its customers through the application of the Company's embedded system products. The Company's total solutions services are customised development projects that is designed to meet the specific needs of each customer. The Company utilizes its knowledge of embedded technology to implement customised embedded systems and where applicable, through the application of the Company's embedded systems products, otherwise products from third parties. In each total solutions project, the Company performs overall project management and provides comprehensive services ranging from system design to product procurement.

The Company's embedded system product portfolio offers a broad range of security-related embedded system products. The Company's range of products enables it to configure hardware and software features to meet each customer's unique requirements. When necessary, the Company would also develop specific embedded system products for each customer.

Purchases

For the two years ended 31st December, 1999, the Company's five largest suppliers, in aggregate, accounted for approximately 26.7% and 26.6% respectively of the total of such purchases. For the two years ended 31st December, 1999, purchases from the single largest supplier amounted to approximately 20.0% and 8.57% of the Company's total purchases respectively. None of the Directors, their respective associates (as defined in the GEM Listing Rules) or shareholders owning more than 5% of the issued share capital of the Company holds any interests in the five largest suppliers of the Company.

Manufacturing

For Network Security Products, Smart Card Application System, GPS Application System and WFAS, the Company's manufacturing operations consist primarily of final assembly, testing and quality control of sub-assemblies and finished units. The Company's operational strategy relies on outsourcing of components and materials. Materials and components used by the Company in its manufacturing processes include semiconductors such as microprocessors, memory chips, ICs, printed circuit boards, power supplies and enclosures. The Directors believe that many of the materials used in the production of the Company's products are generally readily available from a variety of sources.

The Company currently does not have volume production contracts with its customers for ASIC. In respect of ASIC, the Company has made assembling arrangements with certain manufacturers to ensure that customer's volume production requirements will be met when needed. The Directors believe that these relationships will offer additional flexibility to the Company in anticipation of any unexpected future downturn of the industry and maturing product cycle.

Quality control

The Company maintains high quality product standard through stringent quality control. Throughout the entire production process, the Company conducts and performs comprehensive testing and control procedures, ensuring that each of the Company's embedded system products can satisfy the quality standard set out by the Company. The comprehensive testing and control procedures mainly comprise four major elements, namely design control, purchase control, process control and final quality assurance testing. Commencing from the initial stage of production, the Company imposes design control procedure to monitor the whole design process. Meanwhile, a project progress plan will be formulated to set out control mechanism for requirement analysis, requirement finalisation, software design and software testing, etc. Moreover, the Company conducts purchase control to ensure the raw materials and product components are of good quality. During the production process, the Company implements process control to ensure that the Company's embedded system products are assembled and produced correctly. At the end of the production process, the Company conducts a final quality assurance testing to ascertain that product quality standard are reached before delivery to end users.

Sales and marketing

For the two years ended 31st December, 1999, the Company's five largest customers in aggregate accounted for approximately 93.1% and 69.1% respectively of the Company's total turnover. For the two years ended 31st December, 1999, sales to the single largest customer amounted to approximately 65.4% and 21.5% of the Company's total turnover respectively. None of the Directors, their respective associates (as defined in the GEM Listing Rules), or shareholders owning more than 5% of the issued share capital of the Company holds any interest in any of the Company's five largest customers for 1998 and 1999.

Warranty

The Company provides free support and repairs under warranties to its customers through its own service department. The Directors believe that the provision of after-sales services will enhance the Company's profile and recognition of the Company's embedded system products. Starting from year 2000, the Company generally provides one year free maintenance warranties for its embedded system products. Before 2000, the Company provided free service warranty only in respect of its Network Security Products with warranty period ranging from one to three years, with the exception of one single customer, which is a government entity, whose warranty period was for life. Warranty cost was provided based on the management's estimate of future warranty liabilities by applying a fixed percentage on sales of Network Security Products. For the two years ended 31st December, 1999, provision for warranty amounted to approximately RMB nil and RMB500,000, respectively.

Research and development

The embedded system industry is characterised by rapid technological changes and quickly evolving demands. The Directors believe that the Company's success hinges largely on the Company's research and development ability in the embedded technology and related areas. It is therefore important for the Company's research and development team to study the most advanced embedded technology and explore new opportunities in this area.

The most important part of the Company's research and development relates to the software development and hardware design and, in particular, IC design methodology. It is the strategy of the Company's research and development division to integrate research and development of new technology and/or products with the Company's existing embedded system products to enhance their functions and performance. The division will also assist the Directors in determining the Company's future market direction and product development strategy. The Company's research and development division is the focus of the Company and it is the policy of the Company to continuously focus on research and development. For the two years ended 31st December 1999, the Company's research and development expenditure amounted to approximately RMB3.7 million and RMB4.7 million, respectively.

The Company's research and development division relating to embedded technology has a total of 25 research and development staff, 10 of which have master degrees and 5 of which have doctorate degrees specialising in software engineering and microelectronics. All of these research staff have previous work experience in relation to research and development of embedded systems.

Given the Company's well-established relationship with the relevant research institutes of Peking University, the Company can arrange for research project to be participated jointly by the Company and Peking University. Pursuant to the technological cooperation and support agreement entered into between the Company and Peking University on 17th April, 2000, the Company has been granted the first right in acquiring the study results of such research products and Peking University has agreed to provide the Company with all future research

results carried out by Peking University on products relating to embedded system for an indefinite term subject only to provision for termination in case of force majeure event. Such agreement can be terminated by reason of the occurrence of force majeure event. For further details of the technology cooperation and support agreement, please refer to the paragraph headed “Connected Transactions” under the section headed “Relationship with Peking University” in this prospectus.

In addition to the research and development of fundamental basic software and hardware embedded technology, the Company also spends significant efforts in embedded system product development. At present, the Company has 46 staff specialising in the research and development of the Company’s embedded system products.

Competition

In view of its relationship with Peking University and the distinct nature of a majority of its product lines, the Directors consider that the Company at present does not face any major competition in the PRC. The market for embedded systems and related products is competitive, quickly evolving and subject to rapid technological changes. At present, the Company focuses mainly on the PRC market, a newly developed embedded systems market that has a very substantial market potential. The Directors believe that the Company compares favourably with its competitors in terms of research and development and brand awareness. Also, the Directors consider that there is significant entry barrier for potential competitors since certain security-related embedded system products in the PRC, in particular products such as Network Security Products and Security ICs, are technologically sensitive and critical to State security, requiring prior approvals by relevant authorities before any potential competitor can commence technology and product research. In addition, certain embedded system products have to be submitted to the relevant authorities for product testing to ensure compliance with relevant product requirements and standards stipulated by the State prior to the commercialization of such products. The Company has been able to obtain such approvals in reliance, to a certain extent, upon its relationship with Peking University and certain government authorities.

Save as aforesaid, certain security-related embedded system products of the Company such as Smart Card Application System face intense competition from local competitors. The Company’s competitive strategy is to keep abreast of market trend and new direction of embedded technology.

As the PRC laws and regulations currently impose control on the import of certain foreign security-related embedded products such as Security ICs and encryption device into the PRC, foreign competitors which have comparatively more advanced security-related embedded technology currently do not impose any direct threat to the Company in so far as the PRC market is concerned. However, there can be no assurance that such protective regulations will remain in place following the PRC’s entry into WTO and in such event, the Company’s sales may be adversely affected as a result.

Intellectual property rights

The Company is applying for registration of two trademarks in Hong Kong and the PRC and the Directors anticipate that the registration of such trademarks will complete by August 2000 and July 2001 respectively. Further details of the registration are set out in the paragraph headed “Further information about the business” in Appendix 5 to this prospectus.

Employees and management

As at the Latest Practicable Date, the Company had approximately 139 employees, including 6 in management, 31 in technical support, 71 in research and development, 19 in sales and marketing, and 12 in finance and administration. All of the Company’s employees have entered into employee contracts with terms ranging from one to five years and many of them are post-graduates from Peking University.

Year 2000 compliance

Year 2000 has already begun and the Company so far has not experienced any technical failure caused by possible Year 2000 problem and all its computer-related operations remain intact. As the Company’s business is largely dependent on computer software and hardware, prior to the commencement of the year 2000, the Company had taken reasonable steps to ensure that the Company’s operations and business activities would not be adversely affected by the Year 2000 problem. The Company commenced a contingency plan to identify all possible Year 2000 problems to the Company’s computer systems and carried out relevant system remedies such as software and hardware update or replacement. The contingency plan was finished in August 1999. After the commencement of the year 2000, the Company remains alert to any possible Year 2000 failures and the Company’s computer system is closely monitored so that any Year 2000 problems will receive immediate response thereby ensuring the steadiness and safety of the Company’s computer system.

Heng Huat Trust

The Trustees (as defined below) have established the Heng Huat Trust (as defined below) as an incentive scheme for the employees of the Jade Bird Group and the Company and in recognition of their contributions towards the listing of the Company. Heng Huat and Gameraian Limited are the two shareholders beneficially entitled to 93.37 per cent and 6.63 per cent respectively in the issued share capital of Dynamic Win. Heng Huat is a limited liability company incorporated in the BVI, the entire issued share capital of which is held and beneficially owned as to 60 shares by Mr. Xu Zhen Dong, 20 shares by Prof. Zhang Wan Zhong and 20 shares by Prof. Liu Yue. Dynamic Win is one of the Promoters beneficially entitled to 22,000,000 Promoters Shares.

By a trust deed dated 19th July, 2000, Mr. Xu Zhen Dong, Prof. Zhang Wan Zhong and Prof. Liu Yue declared that they held the shares of Heng Huat as trustees (“Trustees”) upon trust for the 477 beneficiaries, who are full-time employees of the Jade Bird Group and the Company (the “Heng Huat Trust”). The trust fund of the Heng Huat Trust consists of the entire issued share capital of Heng Huat together with all accumulations of income directed to be held as an accretion to capital of the Heng Huat Trust. The governing law of the Heng Huat Trust is the laws of Hong Kong.

A summary of the principal terms of the Heng Huat Trust is as follows:

1. Initial Period

During the initial three years period (the “Initial Period”) from the date of establishment of the Heng Huat Trust, the Trustees will hold the income from the trust fund for the beneficiaries with absolute discretion to pay such income to the beneficiaries as the Trustees may determine.

Beneficiaries who leave the employment (other than by reason of illness, disability or retirement) of the Jade Bird Group or the Company will not be entitled to share in anything from the trust fund. In respect of any beneficiaries who leave the employment of the Jade Bird Group or the Company by reason of retirement, illness or disability or who dies during the Initial Period, his dependents shall remain entitled to share the income from the trust fund.

2. Post-Initial Period

After the Initial Period, the trustees will hold the trust fund on trust for the beneficiaries in proportions to their respective interests to the trust fund. Each of these interests is defined by the “points” which it bears to the total number of “points” for all beneficiaries. In respect of any beneficiaries who leave the employment of the Jade Bird Group or the Company by reason of retirement, illness or disability, his dependents shall remain entitled to their respective “points”. The points of all beneficiaries added together will make up to 100 points.

Beneficiaries who individually or together have an aggregate of 2 points or more shall be entitled to request the Trustees to sell the equivalent number of Promoters Shares held by Dynamic Win in the Company and the sale proceeds shall flow-through to the selling beneficiaries.

3. Forfeiture

A beneficiary who ceases to be employed by the Jade Bird Group or the Company by reason other than illness, disability or retirement will have his “points” cancelled by the Trustees; his interests in the trust fund will thereupon be forfeited.