Excellence of
Hong Kong Software Enterprises 2004

Volume 1
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Leveraging on their excellent domain knowledge and technology edges, a number of Hong Kong software enterprises have established good reputation and track records in both the domestic and international markets. To promote the success cases of Hong Kong software enterprises, Office of the Government Chief Information Officer, HKSAR Government commissioned the Software Industry Information Centre (SIIC) of Hong Kong Productivity Council to compile a reference book entitled "Excellence of Hong Kong Software Enterprises 2004 (Volume I)".

A vetting committee composing of industry experts was formed to solicit 20 software enterprises for case studies. The selection criteria included:

- Achievement in local and international awards such as "IT Excellence Awards", "Hong Kong Awards for Industry" and "Asia Pacific Information and Communication Technology Award".
- Quality excellence such as CMM and CMMI qualification.
- Market presence, especially in Mainland and overseas markets.

This volume publishes 20 outstanding Hong Kong software enterprises regarding their successful development of innovative software and implementation of complex IT projects for local and multinational corporations. The selected software enterprises specialize in different domains, including banking and finance, transportation/logistics, telecommunications, e-government, e-commerce, information security, restaurants and hotels, medical services and digital entertainment.

In this book, the introduction section highlights the competitive advantages of the IT industry in Hong Kong. Case studies are organized in alphabetical order according to the company names. Each case covers the company background, key products and services provided, competitive edges and excellence of their solutions, track records, critical success factors, future plans as well as the biography of the key personnel.
We wish to acknowledge the efforts of the vetting committee in evaluating and selecting the software enterprises. We also appreciate the support of all companies that have offered valuable input and shared their experiences in the form of case studies. These companies, in alphabetical order, are:

- 2GoTrade Limited
- Asia Vision Technology Limited
- Azeus Systems Limited
- Computer and Technologies Holdings Limited
- Culturecom Holdings Limited
- e-commerce Logistics Group
- ecVision Limited
- iASPEC Services Limited
- Infrasys (HK) Ltd.
- ITE Smartcard Solutions Limited
- KanHan Technologies Group Limited
- Magically Asia Limited
- Menfond Electronic Art & Computer Design Company Limited
- Octopus Cards Limited
- Outblaze Limited
- SoftEnable Technology Limited
- TA Consultants Group
- TeleEye Group
- Titanium Technology Limited
- Unihub Limited
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INTRODUCTION

According to the 2004 Digital 21 Strategy, the HKSAR Government will continue to promote a vibrant, competitive and innovation driven IT industry in Hong Kong and foster the development of innovative applications and services in the areas of wireless technologies, digital entertainment, open standards and open source software.

Hong Kong software enterprises have been developing advanced and sophisticated solutions to address the complex and ever-changing needs of the private and public sectors. In addition, they have been continuously improving the quality of their software and services to stay competitive in the market. Many award-winning solutions have been developed and are highly recognized in the international market.

The key advantages of Hong Kong’s IT industry lie in strong industry expertise and business knowledge, well-established infrastructures, good understanding of the Mainland and overseas markets as well as high quality IT professionals with good project management skills and rich experience in large-scale projects.

Being a cosmopolitan city, Hong Kong has good understanding of the Chinese and western cultures, strong industry expertise and good business knowledge of the operation of multinational corporations. The highly competitive and complex business environment has made Hong Kong a good test bed for local software enterprises to develop innovative and world-class applications.

Hong Kong has well-established infrastructures in terms of telecommunications network, financial structure as well as tax and legal systems. Equipped with excellent information infrastructure, Hong Kong offers a favorable environment for developing web-based applications, e-commerce, enterprise portal, multimedia, online game and mobile applications etc.

In addition, Hong Kong is one of the largest venture capital bases in Asia. The establishment of the Growth Enterprise Market further assists software enterprises in raising funds for product development/commercialization and business expansion. More importantly, intellectual property rights are well protected under the governing laws.

In terms of market exposure and technical standards, Hong Kong software enterprises are familiar with international practices, making Hong Kong an ideal link between mainland China and the West. The bilingual capability of local IT professionals in Chinese and English
communication, combined with their sensitivities to global market trends, have greatly facilitated the presence of Hong Kong software enterprises in the international market.

Furthermore, Hong Kong software enterprises have good project management skills and teamwork methodology as well as rich experience in implementing large-scale projects. There are high quality IT talents in Hong Kong who are creative, efficient, flexible and have strong quality commitment. In terms of technical competence, many of them are well versed in high value-added activities such as architecture design, system integration and consultancy services. Consequently, they are able to deliver projects on time, within budget and with high quality standard.

Last but not least, the close relationship between Hong Kong and mainland China has intensively strengthened the partnership between software enterprises in the two places. Their combined advantages have further increased their competitiveness in the global IT market.

These 20 success cases will certainly provide insight for enterprises, in particular those to-be-successful small and medium enterprises.
Executive Summary

Four-year-old Hong Kong-based software company 2GoTrade Limited (2GoTrade) is a leading Real Time Brokerage System (RTBS) provider to financial institutions and brokers. The company offers its services primarily under an ASP model.

2GoTrade’s Go.ExchangeVS ASP platform is a proprietary next generation RTBS which incorporates best-of-breed business processes, software, systems, network and infrastructure in one omnipotent platform. Moreover, it supports straight-thru-processing and settlement on AMS/3 (HKEX equities), OAPI 17.1 (OM based derivatives) and FIX 4.X for the overseas markets.

The company has invested over HK$40 million and spent more than four years to develop Go.ExchangeVS. The product has brought the company honour including the winner in the Asia Pacific Information & Communications Technology Awards 2003 (APICTA - Finance) and the bronze winner of IT Excellence Awards 2002 (Product/SME category). In addition, the company has obtained many certifications and regulatory compliance requirements imposed by Hong Kong Exchanges and Clearing Limited and The Securities and Futures Commission of Hong Kong.

The company’s success is attributed to having the right business model backed by exquisite execution.

The company plans to expand its market worldwide by deploying its services to other financial markets in mainland China and overseas countries.

“In 2003, our company beat all top competitors from 10 Asian countries to win the Asia Pacific Information & Communications Technology Awards (APICTA - Finance),” said Mr. John Chan, CEO of 2GoTrade Limited.
Company **Background**

Established in 2000 by a team of technology and business visionaries with the aim to build the best 21st century electronic trading infrastructure, Hong Kong-based 2GoTrade Limited (2GoTrade) is now one of the leading IT service providers for the Hong Kong financial market.

“Our vision is to make 2GoTrade a ‘built-to-last’ company and assist Hong Kong in becoming the world's top financial centre empowered by our technology, services and business model,” said Mr. John Chan, CEO of 2GoTrade.

Based on next generation real-time technology, 2GoTrade aims to provide the best value proposition to its customers.

2GoTrade is a joint venture between an overseas technology fund and ePRO Systems Limited (ePRO). ePro Systems is a listed company on the Growth Enterprise Market of The Stock Exchange of Hong Kong Limited and it is a leading system integrator in Hong Kong and mainland China since 1985.

Currently, the company employs around 25 people in Hong Kong.

**Key Products & Services**

2GoTrade's Go.ExchangeVS ASP platform is a proprietary next generation RTBS which incorporates best-of-breed business processes, software, systems, network and infrastructure in one omnipotent platform that delivers market intelligence, tools and applications to brokers and their customers in real time. It supports straight-thru-processing (STP) on AMS/3 (HKEX equities), OAPI 17.1 (OM based derivatives) and FIX 4.X for the overseas markets.

Go.ExchangeVS ASP platform is comprised of the following four IT disciplines working seamlessly as one robust infrastructure:

1. **On-demand, real-time brokerage software applications** - Direct Access Internet trading for active traders; Front Office for trading room; Middle Office for risk management, regulatory compliance and customer relationship management; Back Office for clearing, settlement, corporate actions and accounting.

2. **A highly-scalable N-tier architecture and hardware platform** - Optimize for high volume, mission-critical application services.

3. **A fault-tolerant multi-service network infrastructure and hosting facilities** - Deliver secured, non-stop real-time application services via the Internet, private ATM/Frame and metro IP networks, anytime, anywhere.

4. **A command and control center** - Provides proactive real-time management on all IT services delivered to customers, 24x7.
"Our ASP service model empowers any brokers with 'best-of-breed' functionality and IT capabilities under a fixed budget and in the shortest time possible," said Chan. "We are the only brokerage systems provider in Hong Kong that can offer such time, cost and performance advantages to our customers - all under our ASP model. A system of like-kind capabilities costs millions upfront and many IT headcounts for internal support. We can do it for much less under one service-level-backed agreement, and with no hidden cost," he added.

Go.ExchangeVS is 100% developed in-house and the company invests heavily on R&D. "We have invested over HK$40 million and four years to get to where we are today," Chan elaborated. "Every dollar we made we re-invest it back into our platform and customers, and that is not going to stop anytime soon."

During the past few years, 2GoTrade has earned recognition on its leadership in product and service excellence as well as being the innovator for the IT industry.

"In 2003, our company beat all top competitors from 10 Asian countries to win the Asia Pacific Information & Communications Technology Awards (APICTA - Finance)," said Chan.

The company has also received the following award, certifications and compliance since its inception:

- Hong Kong Exchanges and Clearing Limited (HKEX) approved Futures and Options back-office vendor.
- HKEX approved OAPI Futures software vendor.
- First vendor and ASP to receive certification waiver and "Non-schedule roll-out" of AMS/3 (BSS) equities trading systems in Hong Kong.
- The Securities and Futures Commission of Hong Kong (HKSFC) compliant "Financial Resource Reporting".
- HKSFC compliant and recognized AMS/3 Internet trading systems and outsourcing vendor.
- HKEX AMS/3 certified Broker Supplied Systems vendor.
Track Records

Go.ExchangeVS is currently supporting over 20 brokerage houses and financial institutions, including many house-hold names such as China International Capital Corporation (a Morgan Stanley joint venture), Citic Capital Securities, JS Cresvale Securities, Quam Securities, Okachi Securities and Stockmartnet.

"We are very please of our 100% success record in all of our service deployments thus far," said Chan. "Despite of the recessions and SARS plaque, 2GoTrade top-line has been growing at triple-digit rate for the past three years."

Critical Success Factors

The company's success is attributed to having the right business model and exquisite execution by a team of knowledgeable and dedicated workers.

The management of 2GoTrade insists on providing services via the ASP model rather than selling its product directly to the customers. "IT outsourcing is the global trend and it is a proven value proposition. It works best in countries where telecom infrastructure is best and Hong Kong has it. Our full service model offers the best return of investment to customers seeking new technologies to support their forever-changing business requirements. Moreover, the ASP model can help us generate stable and recurring incomes to support our aggressive growth plan," he noted.

People are the asset of 2GoTrade. "2GoTrade is a high performance knowledge based company requiring all staff having expert domain knowledge on IT and finance," he continued. "In addition, our staff requires 100% integrity and meet the highest ethnical and professional standards. Our customers entrusted their IT operation and vital business data with us and we must continue to meet their highest expectations."

Future Plans

The company aims to expand its market worldwide. "Financial market is emerging as a global industry with no geographical or market boundaries," expressed Chan.

To achieve this objective, 2GoTrade plans to deploy its services to other financial markets in mainland China and many overseas countries as and when opportunity opens up.

"With our Go.ExchangeVS ASP platform, overseas brokers and investors can access Hong Kong's financial market and perform real-time trading and settlement over the web almost instantly via our service platform," Chan concluded.
Biography

John Chan,
CEO of 2GoTrade Limited

Before founding 2GoTrade, Mr. Chan held the position of AGM of Business Strategy, Business Market of Cable & Wireless HKT (CWHKT). Leading a team of marketing managers, business analysts and research specialists, he was responsible for the segment's strategy formation and transformation as well as CRM and market communication. Mr. Chan left CWHKT in October 1999 in pursuit of the 21st century's opportunity in the finance market.

Prior to joining CWHKT, Mr. Chan had held various senior positions in management, sales, marketing and engineering in a number of prominent multinational technology companies including Cabletron Systems (mission-critical networks), ComputerVision (IT outsourcing), Tricom Computers (system integration) and Rockwell International Microelectronics (VLSI).

Mr. Chan started his career in the technology industry in 1978 as a staff scientist at Rockwell International US developing non-volatile magnetic-bubble memory and quickly rose through the ranks. As an Engineer IV project leader, he was responsible for the design and production of the Rockwell International R656X Disk Controller Series based on VLSI technology. Mr. Chan graduated from the California Institute of Technology (Caltech), Pasadena, California with a Bachelor Degree in Computer Science and Electrical Engineering. He was born in Hong Kong but worked in the US technology industry for 15 years before returning to Hong Kong in 1993.
Executive Summary

Founded in 1997, Asia Vision Technology Limited (AVT) is the first and only Hong Kong-based company that develops and provides video optical character recognition and pattern recognition technologies. Currently, the company has around 50 staff in Hong Kong and three branch offices in Shenzhen, Beijing and Singapore.

AVT has the best-of-breed products and technologies for the markets it serves and some of them are the first in the world. Automatic License Plate Recognition Products (ALPR) are aimed at providing accurate and reliable means of capturing license plate information on statutory or moving vehicles; Vehicle Feature Matching Products (VFM) help car park operators to prevent car theft through switching license plates; Traffic Data Capture Products (TDC) provide useful ways of capturing traffic flow data and pattern. Automatic Container Number Recognition Products (ACNR) are AVT’s flagship products designed to assist terminal operators, customs, shipping companies etc. to effectively identify containers for different application purposes.

Key competitive edges of AVT’s products are: high accuracy rate, fast recognition speed, using off-the-shelf hardware and global implementation. AVT was the only company among other competitors from all over the world that could meet the accuracy requirement when bidding for the tender from the Customs and Excise Department, HKSARG in 2002. Eventually, it won the tender from HKSAR Government.

AVT has received many awards for its product excellence and innovation over the past several years. In addition, the company has a large number of clients from about 20 countries.

In future, the company will continue to innovate and develop new products. Moreover, it is going to further expand the distribution network in order to enlarge its market in overseas countries and mainland China.

“Our company was the only company among other competitors from all over the world that could meet the accuracy requirement of 97.5% when bidding the tender from the Customs and Excise Department,” said Dr. John Lee, Chairman and CEO of Asia Vision Technology Limited.
Company Background

Established in 1997 by two academic researchers from the Hong Kong University of Science and Technology, Asia Vision Technology Limited (AVT) is the first and only Hong Kong-based company that develops and provides video optical character recognition and pattern recognition technologies in the fields of security, parking, ITS (Intelligent Traffic Systems), logistics, traffic law enforcement/monitoring, electronic toll collection, port operations and other applications.

"The name [Asia Vision] reflects our mission to develop the latest computer vision software applications and system technology to create All-Purpose Computer Eyes from Asia," said Dr. John Lee, Chairman and CEO of AVT. "Our products are intended to simulate the capabilities of human eyes to improve security, business efficiency and life quality."

The company is now employing around 50 staff in Hong Kong and has three branch offices in Shenzhen, Beijing and Singapore.

Key Products & Services

AVT’s products are grouped into the following categories:

1. **Automatic License Plate Recognition Products** - This product group covers applications related to the automatic recognition of vehicle license plate number.

2. **Vehicle Feature Matching Products** - This product group covers applications related to vehicle pattern and feature matching utilizing innovative computer aided feature comparison and pattern recognition techniques.

3. **Traffic Data Capture Products** - This product group covers the application of traffic data capture that forms an integral component of any traffic control management systems.

4. **Automatic Container Number Recognition Products** - This product group covers applications related to port, terminal, and intermodal operations.

"Our company is the result of more than 15 years dedication to R&D in computer vision technologies. It is innovative and is the pioneer in the industry," said Lee.

In fact, there is no other Hong Kong-based company that provides similar products. More importantly, some of AVT’s products such as Mobile License Plate Recognition, Mobile Container Number Recognition and Vehicle Feature Matching Products are the first inventions in the world.
Competitive Edges & Excellence

“We are proud of our high product quality,” said Lee. He explained that high accuracy rate and fast recognition speed are important to recognize letters and numbers on moving vehicles and cargo containers. The accuracy rate of AVT products is as high as 98-99% (the 1-2% distortion is largely due to damaged/dirty characters) and recognition speed is less than 0.2 second.

In 2002, AVT won a large project from the Customs and Excise Department, HKSARG.

“Our company was the only company among other competitors from all over the world that could meet the accuracy requirement of 97.5% when bidding the tender from the Customs and Excise Department,” he expressed.

In addition, the company’s solutions have proven to be cost effective with high accuracy, thus minimizing human errors and the number of manpower required and providing a higher level of security.

“Despite a backdrop of uncertainty and slow global economic growth, our company awarded 48th position (No. 1 in Hong Kong) in the Deloitte Technology Fast 500 Program in 2002 and 15th position (No. 2 in Hong Kong) in 2003,” Lee said.

AVT has received various awards since its incorporation, including:

Awards:

2003  Hong Kong Awards for Industry - Technological Achievement Award
      Deloitte Touche Tohmatsu Asia Pacific Technology Fast 500

2002  Deloitte Touche Tohmatsu Asia Pacific Technology Fast 500

1999  Hong Kong IT Excellence Awards - Innovation Silver Award
      Hong Kong Awards for Industry: HKITCC Certificate of Merit in Technological Achievement
      Hong Kong Awards for Industry: CMA Certificate of Merit in Machinery and Equipment Design

1998  Hong Kong IT Achievement Award
**Track Records**

In 2002, AVT stood out prominently among strong competitors from all over the world to win a large project from the Customs and Excise Department, HKSARG. The project included the supply, installation and commissioning of an automated vehicle recognition system for Hong Kong's three different border control points, namely Lok Ma Chau, Man Kam To and Sha Tau Kok. The system covers a total of 42 lanes over three checkpoints.

In addition, MTR Corporation has also installed AVT's VECON-VIS (a license plate recognition system) at three Airport Express stations, namely Hong Kong, Kowloon and Tsing Yi. The system is used in managing the Airport Express shuttle buses and hotel/tour vehicles that are traversing the designated areas in the stations.

Furthermore, the company has recently been awarded a tender from Asia Container Terminal Ltd. in 2004. The project consists of 11 lanes of container number recognition system.

"AVT's clients cover about 20 countries. This is a great achievement for a Hong Kong-based company in such a short period of time," Lee said. Table 1 lists some of the company's major clients.

**Table 1. Major clients**

<table>
<thead>
<tr>
<th>Hong Kong</th>
<th>Mainland China/Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Customs &amp; Excise Department, HKSARG</td>
<td>• Amano Corporation in Japan</td>
</tr>
<tr>
<td>• Civil Engineering Department, HKSARG</td>
<td>• AURORA Group in Taiwan</td>
</tr>
<tr>
<td>• Drainage Services Department, HKSARG</td>
<td>• CET Technology in Singapore</td>
</tr>
<tr>
<td>• Airport Authority</td>
<td>• Her Majesty's Government Communications Centre in UK</td>
</tr>
<tr>
<td>• CSX World Terminal Ltd.</td>
<td>• Maersk Pacific (APM Terminals) in US</td>
</tr>
<tr>
<td>• Asia Container Terminal Ltd.</td>
<td>• Roads &amp; Traffic Authority in Australia</td>
</tr>
<tr>
<td>• Chubb Hong Kong Ltd.</td>
<td>• Berge Group in Spain</td>
</tr>
<tr>
<td>• Wilson Parking HK Ltd.</td>
<td>• Scheidt &amp; Bachmann in Germany</td>
</tr>
<tr>
<td>• Edward Keller Ltd</td>
<td>• Shanghai Waigaoqiao Free Trade Zone in mainland China</td>
</tr>
<tr>
<td>• MTR Corporation Ltd.</td>
<td>• Japan Police</td>
</tr>
<tr>
<td>• Kowloon Motor Bus Co. (1933) Ltd.</td>
<td></td>
</tr>
</tbody>
</table>

**Critical Success Factors**

AVT's critical success factors evolve three elements: people, technology and commitment.

Since AVT is people-oriented, it believes in the people (customers, partners, shareholders and employees) whom it is in touch with. It also believes that their potential creativity and capability are significantly contributing to the company's success.
AVT is technologically driven and is always at the forefront of video imaging and optical characters recognition technology. This enables the company to innovate and develop solutions that are adaptable to different environment and conditions of every country.

AVT is also a committed company. The company strongly believes that the foundation of trust and commitment is essential to provide responsible products that can improve life and provide a safer place for everyone.

These three elements bring out the best in AVT. In essence, these three elements are also the supporting pillars of AVT.

**Future Plans**

To meet the ever-demanding requirement from its customers, AVT will continue to innovate and develop new products based on video imaging and optical characters recognition system for the betterment of mankind. These developments may also include solutions that are based on proprietary or patented technology that can be deployed over open systems.

To tap the markets in overseas and mainland China, AVT plans to expand the networks with its partners and distributors. "We cannot rely on ourselves alone to expand our market reach. We have to leverage on our partners' resources and expertise," Lee concluded.

**Biography**

Dr. John C. M. Lee,
Chairman and CEO of Asia Vision Technology Limited

Dr. Lee earned his Ph.D. degree in Computer Science (specializing in computer vision) from the University of Minnesota in 1989.

He is the founder of AVT Group of Companies and being a strategist and visionary, he is charting the group in achieving various milestones. He was a researcher at the Institute of Systems Science, National University of Singapore from 1989 to 1992 where he designed the Container Number Recognition System for the Port of Singapore Authority. From 1992 to 2000, he was a professor at the Hong Kong University of Science and Technology. Dr. Lee was a member of the Editorial Board for the Journal of Multimedia Tools and Applications and a guest editor for the 1996 special issue on Image Database for the Pattern Recognition Journal. He was elevated as a Senior Member of the Institute of Electrical and Electronics Engineers in 1999. He invented the "Method and Apparatus for Verifying a Container Code" and the "Method for Identifying a Sequence of Alphanumeric Characters", which were patented in UK and US respectively. He also served on several program committees of various international conferences and he acted as a reviewer for numerous journals and international conference.
Mr. Ken Wong,
Chief Technology Officer of Asia Vision Technology Limited

Mr. Wong obtained his Master of Philosophy in Computer Science from the Hong Kong University of Science and Technology. He is one of the early developers of the VECON technology.

Being the Chief Technology Officer and co-founder of Asia Vision Technology Ltd., Mr. Ken Wong leading the Research and Technical Development of the company to develop the numbers of new VECON recognition module for more than twenty countries worldwide.

In 2002, he leaded the technical team to successfully complete the implementation of the "Automatic Vehicle Recognition System Project" (AVRS) for the Customs and Excise Department, HKSARG which required License Plate Number Recognition System for 42-lane at HK-China Border. We were the only company, which can achieve the tender requirement of 97.5% accurate rate. He was also the key Person for the AVRS's System architectural design, implementing and quality assurance.

For the VECON-CON - Container Number Recognition development, Mr. Wong successfully designs & develops the World first Mobile Container Number Recognition System (VECON-MIV) for Pier 400, US in 2002. This has widened the product line of VECON-CON and created new market for the company. In 2004, his contribution to enhance the VECON-CON technology has once again be the major factor for AVT to be awarded the order by Asia Container Terminal Ltd., HK.
Executive Summary

Founded in 1991, Azeus Systems Limited (Azeus) specializes in software development, consultancy service and system implementation. It has offices in Hong Kong, mainland China and the Philippines, employing more than 200 staff.

With the company’s commitment to software development excellency, Azeus achieved CMM Level 5 in 2002 and CMMI Level 5 in 2003. It has built up many track records and a strong reputation for designing high quality systems and cost-effective solutions with innovative technologies.

The company has implemented many key IT projects for various government departments in Hong Kong as well as multinational companies. All government projects have been implemented under fixed-price turn-key terms with penalty clauses on late delivery. This reflects Azeus's competence in delivering quality solutions on time and within budget.

The critical elements of the company’s success are persisting drive to provide quality services and dedicated customer support, improve service efficiency and implement cost-effective solutions, together with its commitment to manpower development.

By leveraging on its solid project experiences, Azeus will explore new geographic markets in Asia/Pacific and expand its software outsourcing business.

“As a CMM and CMMI Level 5 company, we are at the highest level of process control. This gives us a competitive edge to deliver best-in-class IT systems. Our proven capability and expertise in offering quality, reliable and cost-effective solutions have resulted in higher productivity for us and increased business benefits for our customers,” said Mr. Lee Wan Ok, Co-founder and Managing Director of Azeus Systems Limited.
Company Background

Founded in 1991 by Mr. Lee Wan Lik, a graduate of the Massachusetts Institute of Technology, Azeus Systems Limited (Azeus) specializes in software development, consultancy service and system implementation.

The mission of Azeus is:

fl To pursue innovative world-class software development and provide sound technical consultancy and implementation on complex computer projects; and
• To build a company that respects its employees believing in their creative talents, harnessing their sense of commitment and entrepreneurial flair, and providing an excellent environment for people to work in.

"At Azeus, quality is our brand," said Mr. Lee Wan Lik, Co-founder and Managing Director of Azeus. "Software developers should think of quality to distinguish themselves from competitors."

Having achieved CMM and CMMI Level 5, the company has built a reputation for designing high quality systems and cost-effective solutions with innovative technologies. Coupled with customized and dedicated customer support, it has implemented many key IT projects in both the private and public sectors (see table 1).

Headquartered in Hong Kong, the company has offices in mainland China and the Philippines, employing a total of 200 staff.

Key Products & Services

The company offers consultancy, software development and system implementation services. Projects range from e-government initiatives, management information system-based projects to projects which involve implementing innovative technologies such as XML, wireless handhelds, photo and text imaging, geographical information system, Chinese document searching, real time data transmission system for mobile phones, data warehousing and web services.

"Our domain knowledge and expertise is in customized software development," said Lee. For many government projects implemented, the company has employed proven software development methodologies such as Project In Controlled Environment, Rapid Application Development and Structured Systems Analysis and Design Methodology.

Moreover, Azeus’ projects typically incorporate fault-tolerance and 24-hour operation support. The company provides project management, software customization, training as well as support and maintenance services.
Competitive Edges & Excellence

Azeus was the first local software company awarded ISO 9001 for software development in 1997. With the company’s commitment to software development excellency, its business divisions in Hong Kong and Manila achieved CMM Level 5 in 2002. It is the first home-grown software company in the Greater China region to achieve the industry’s leading quality standard.

In November 2003, the company attained CMMI Level 5. This is a key internationally recognition for quality as not many software companies worldwide can accomplish that.

"For people who know IT, they understand what are involved in building complex IT systems. Given our high quality standards, they will not hesitate to choose us," Lee expressed. He added that all government projects have been implemented under fixed-price turn-key terms with penalty clauses on late delivery. This reflects the company’s competence in delivering quality solutions on time and within budget.

"Besides quality assurance, the models [CMM and CMMI] cover other areas such as project management, on time delivery and productivity," he elaborated. Level 5 means you are very good at managing all these areas.

"As a CMM and CMMI Level 5 company, we are at the highest level of process control. This gives us a competitive edge to deliver best-in-class IT systems. Our proven capability and expertise in offering quality, reliable and cost-effective solutions have resulted in higher productivity for us and increased business benefits for our customers," he said.

Track Records

In over ten years of its operation, Azeus has established an impressive list of clients, which includes Hong Kong CSL Limited, Works Bureau, Highways Department, Hong Kong Police Force, Water Supplies Department, Legislative Council, Housing Authority, Buildings Department, Territories Development Department and Information Services Department.

Table 1 lists some of the key IT projects implemented for various government departments and large enterprises. Some projects are sizable and have very complex requirements. For example, the five-year contract with the Intellectual Property Department is worth more than US$10 million. This project not only involves internal workflow automation but also allows the public to apply for trade marks, patents and design registration via the Internet and conduct online search for the Department’s databases.
It is a showcase to demonstrate how internal processes can be handled electronically. Many government officials come to visit the Department to see the big differences under a paperless environment. Lee expressed.

In addition to its track records in the public sector, Azeus has been working for a number of multinational companies. The company is the outsourcing contractor supporting the financial forecast and reporting systems for the Johnson Controls Group, a leading global manufacturer and supplier with 90,000 employees operating in over 500 locations worldwide. Azeus is responsible for enhancing the Group’s existing system and supporting different financial reporting requirements for all of the Group’s Asia/Pacific operations.

**Table 1: Key IT projects implemented**

<table>
<thead>
<tr>
<th>Client</th>
<th>Project</th>
</tr>
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<tbody>
<tr>
<td>Intellectual Property Department</td>
<td>• Provision of outsourcing services (both existing IT and office support services) and development of new systems for online application and searching</td>
</tr>
<tr>
<td>Johnson Controls Group</td>
<td>• Enhancement and support of the financial forecast and reporting systems</td>
</tr>
<tr>
<td>Hong Kong CSL Limited</td>
<td>• Development of a real-time monitoring and data broadcast system</td>
</tr>
<tr>
<td>TicketMaster</td>
<td>• Development of an online and automatic ticketing system</td>
</tr>
<tr>
<td>Water Supplies Department</td>
<td>• Development of the Integrated Materials and Job Records Management System for streamlining waterworks inventory operations</td>
</tr>
<tr>
<td>Information Services Department</td>
<td>• Development of a web-based Digital Photo System for storing and publishing digital photos</td>
</tr>
<tr>
<td></td>
<td>• Development of the Library Information Retrieval System for scanning, storing and retrieving newspaper clippings</td>
</tr>
<tr>
<td>Highways Department</td>
<td>• Development of a GIS-based Utility Management System for coordinating road excavation activities</td>
</tr>
<tr>
<td></td>
<td>• Development of Integrated Project Management System for managing construction projects</td>
</tr>
<tr>
<td>Legislative Council</td>
<td>• System integration services in the implementation of the Research Library Information System</td>
</tr>
<tr>
<td>Hong Kong Police Force</td>
<td>• Development of the Photo Album System for retrieving criminal photos</td>
</tr>
<tr>
<td></td>
<td>• Implementation of the Reference Material System for viewing and distributing manuals and orders online</td>
</tr>
</tbody>
</table>
Critical Success Factors

The critical elements of the company’s success are persisting drive to provide quality services and dedicated customer support, improve service efficiency and implement cost-effective solutions together with its commitment to manpower development.

Our success is built upon our total commitment to best practice processes and the implementation of proven quality standards in software development, consultancy and support services,” Lee said.

Moreover, the company’s track records have built up a good reputation. By following the CMM and CMMI models, we can add value to our customers as complex IT systems are developed within their specific requirements in terms of budget, time and performance parameters,” he continued.

Human capital is also an important factor. The company continues to provide training for their staff to follow the processes. “Everything starts with people,” he explained. “First we have the people, then we build the processes around them.”

Future Plans

The CMM and CMMI Level 5 qualifications are widely regarded as a passport for exporting IT services to overseas countries. Azeus is able to maintain a good visibility in the global IT market, thus facilitating further business growth.

The company would like to leverage on its solid software development expertise to develop business in Asia/Pacific. “We are looking at new geographic markets in the region and plan to expand our software outsourcing business via Hong Kong,” Lee said. The company aims to achieve more than 30% growth in the near term.

“Our ability to deliver software cost-effectively with quality creates a very strong competitive advantage for us and our customers in both the public and private sectors,” he expressed.
Mr. Lee Wan Lik,
Co-founder and Managing Director of Azeus Systems Limited

Mr. Lee is responsible for the strategic direction and overall management of the company’s offices in Hong Kong, the Philippines and mainland China. With 14 years of experience in the IT sector and a pioneer of Hong Kong’s software industry, Mr. Lee spearheaded software development services at a time when reselling of hardware and software was the core IT business in Hong Kong.

Mr. Lee also played an instrumental role in leading the Azeus team to develop what was commonly accepted as some of the most innovative software applications in Hong Kong. In 1993, Azeus designed one of the first document management systems for Airport Core Projects covering West Kowloon Reclamation, West Kowloon Expressways, North Lantau Expressways and the Tsing Ma Bridge construction. In 1997, Mr. Lee developed one of the first Chinese text search engines in Hong Kong. Currently, Azeus is a CMMI Level 5 Company.

Mr. Lee has a Bachelor of Science Degree in Mathematics and a Bachelor of Science Degree in Computer Science and Engineering from the Massachusetts Institute of Technology, as well as a Master Degree of Science in Computer Sciences from the University of Texas. Mr. Lee also holds memberships from leading industry organizations including the Hong Kong Institution of Engineers and the Young Entrepreneurs Development Council.
Executive Summary

Computer And Technologies Holdings Limited ("C&T" or the "Group") is one of the leading IT services providers involved in the design, delivery and operation of total IT solutions. Founded in 1991 and listed on the Main Board of The Stock Exchange of Hong Kong Limited in 1998, C&T has headquarters in Hong Kong with regional operations throughout mainland China and Taiwan with more than 400 employees.

Through its subsidiaries, C&T collectively provides a broad range of high quality services and software applications to their customers. Its skill set is comprehensive, ranging from software development, system integration and business process outsourcing.

C&T has established proven records in delivering world-class innovative IT solutions and implementing large-scale mission-critical IT projects. Over the years, it has won numerous awards and is widely recognized for its achievements in business, technology and projects implemented.

Many large corporations and public organizations in Hong Kong and mainland China have entrusted solutions and services from C&T, including the HKSAR Government and Shanghai Stock Exchange.

A strong establishment with proven track records, in-depth industry knowledge and technology insight, combined with strong management team and IT talents, are keys to C&T's success.

"A he Electronic Service Delivery Scheme is one of the largest e-government initiatives in Asia while the Electronic Tendering System (ETS) is one of the world's first government-to-business Internet-based electronic tendering systems. These two flagship projects of the HKSAR Government that C&T has involved in application development and operations have received many international awards for pioneering IT projects worldwide," said Mr. Ng Cheung Shing, Founder, Chairman and CEO of Computer And Technologies Holdings Limited.
Company Background

Computer And Technologies Holdings Limited ("C&T" or the "Group") is one of the leading IT services providers involved in the design, delivery and operation of total IT solutions that meet customers’ business requirements. C&T's vision is to deliver competitive advantages for enterprises and government organizations to progress by optimizing their information systems efficiency.

Founded in 1991, C&T has headquarters in Hong Kong with regional operations throughout mainland China and Taiwan. It has established offices as well as support and development centers in major commercial regions of mainland China such as Beijing, Shanghai, Nanjing and Shenzhen.

During the early years of establishment, C&T was one of the very few IT companies in Hong Kong who provided IT services into the Mainland market. "Although the IT market in mainland China was relatively small at the early nineties, we saw many opportunities and a huge potential for growth," said Mr. Ng Cheung Shing, Founder, Chairman and CEO of C&T.

Later on, C&T put more focus on the Hong Kong market and diversified its business. Riding on the outsourcing trend, it started to actively participate in government projects. In 1998, C&T was listed on the Main Board of the Stock Exchange of Hong Kong Limited. Today C&T has expanded into an all round IT services provider with a synergetic portfolio of subsidiaries, employing more than 400 people in Greater China.

Partnering with a range of world-class IT vendors like Hewlett-Packard, Nokia, Cisco and IBM, C&T is providing a wide range of IT solutions and services. C&T recorded revenue of US$46 million in 2003 with key markets covering telecommunications, financial services such as banking, insurance, stock exchanges and brokerages, manufacturing, transportation as well as government and public sectors.

Key Products & Services

Through its subsidiaries, C&T collectively provides a broad range of high quality services to assist customers to maximize their return on IT investment and gain competitive advantages over their rivalries:

1. Computer And Technologies Integration Limited. It provides systems and network integration services and industry-specific IT application implementation services.

2. Computer And Technologies Solutions Limited. It offers IT solutions implementation services and application development outsourcing services.

4. IPL Research Limited (IPL). It offers enterprise-class human resource management and related application software.


Software offerings from its subsidiaries include:

- Billing and Customer Care Solutions.

- Electronic Tendering, Electronic Procurement and other e-commerce applications.


**Competitive & Excellence**

"Our skill set is comprehensive. We have software development expertise as well as capabilities for system integration and business process outsourcing," Ng expressed. Some of the major projects implemented by the Group not only set new standards for applying IT solutions ingeniously to traditional business processes but also confirm the Group's competency in building and operating large-scale, multi-layer IT projects (see also the track records on page 29).

"In some cases, we are also the operator hosting the system and supporting its daily operations. We need to consider the operation needs thoroughly and do more design work," he continued. "It is relatively difficult for other IT service providers to possess the necessary skills without the experience in the actual operations."

As an early listed company in the industry, the Group has the financial strength to expand through acquiring related IT companies. "IPL is a leader in human resource application for the mid market and has over 200 installations in Hong Kong. By acquiring IPL, we can gain a large market share and build up our competitive edges in the human resource application market," Ng said.

Over the years, the Group has been widely recognized by industry organizations for its achievements in business, technology and projects implemented. Some of the major awards are listed in the next page.
**Awards:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>The Group's electronic tendering application services received the Certificate of Merit (2nd Prize) - E-Commerce Category in Asia Pacific Information Communication Technology Award 2003</td>
</tr>
<tr>
<td></td>
<td>The Group received the Best Supplier Award in IT service category from Shanghai Volkswagen in 3 consecutive years (2001 to 2003)</td>
</tr>
<tr>
<td>2002</td>
<td>The Group and Shui On Construction jointly won a Certificate of Merit in IT Excellence Awards 2002 under the &quot;IT Application Award&quot; category with the SOCAM.com project</td>
</tr>
<tr>
<td></td>
<td>The Group and Modern Terminals jointly won a Certificate of Merit in IT Excellence Awards 2001 with the ModernPorts.com project</td>
</tr>
<tr>
<td>2001</td>
<td>The Group was ranked as one of the top 20 fastest growing Chinese enterprises by Yazhou Zhoukan magazine</td>
</tr>
<tr>
<td></td>
<td>The Group won the Enterprise Award at DHL/SCMP Hong Kong Business Awards 2001</td>
</tr>
<tr>
<td>2000</td>
<td>The Electronic Tendering System won the Best Public Sector Site in the Business Web Sites of the Year Award 2000 and the Hong Kong e-Award of e-Public Services - Design &amp; Innovation Award</td>
</tr>
<tr>
<td></td>
<td>The Group was named as one of the Forbes Best 300 listed Small Companies in the world</td>
</tr>
</tbody>
</table>

**Track Records**

The Group has a long standing track record in delivering world-class innovative solutions and implementing large-scale mission-critical IT projects. The earliest substantial project of the Group is the Automated Securities Trading System for the Shanghai Stock Exchange (SSE), one of the largest securities exchanges in Asia in terms of the number of daily trading transactions.

"The system can handle 60 million transactions per day. It is a mission critical system that demands high data accuracy and reliability," Ng elaborated. "We are pleased to see that our solution not only assists Shanghai Stock Exchange to increase the trading volume but also facilitates the development of the Mainland's financial sector." C&T has established close partnership with Shanghai Stock Exchange since 1992 and have been receiving continuous businesses from this customer subsequently.

"Another world-class example is the Customer Care and Billing System (CCBS) that we are implementing for the Water Supplies Department (WSD) of Hong Kong. CCBS is one of the
largest-scale projects of its kind in Asia, given the sophistication of the operations of WSD as well as its largest size of meter count (there are more than 2 millions meters in Hong Kong) among all public utility companies in Asia, Ng added.

The Group has also implemented a number of key e-government projects. The Electronic Service Delivery Scheme is one of the largest e-government initiatives in Asia while the Electronic Tendering System (ETS) is one of the world’s first government-to-business Internet-based electronic tendering systems. These two flagship projects of the HKSAR Government that C&T has involved in application development and operations have received many international awards for pioneering IT projects worldwide,” he said.

Many large corporations and public organizations in Hong Kong and mainland China have entrusted solutions and services from the Group, including the HKSAR Government, MTR Corporation, Hutchison Whampoa Group, Jardine Aviation Services, Shanghai Stock Exchange, Shanghai Volkswagen Automotive, China Pacific Insurance, China Mobile, China Telecom, Philips, Samsung Electronics and DHL.

Critical Success Factors

On top of its professional services and products, the Group leverages its proven experience, in-depth industry knowledge, technology insight and innovation to develop partnerships with the customers and deliver value-added solutions. The senior management team has an average of 20 years of IT experience in Asia and across the globe with a track record of business and technology accomplishments. Consequently, the Group can build effective solutions to address customers’ business needs and enhance their information infrastructures.

The Group has also built its success upon business transformation, from project-based services to transaction-based services and long-term outsourcing contracts. Through business transformation, we have established a substantial stream of revenue which are highly recurring and predictable. This makes it easier for resources planning and development,” Ng expressed.

Last but not least, employees’ dedication and contribution have played a key role in growing the Group’s businesses. “We provide various training opportunities such as inviting external experts to the company and providing training subsidies for our staff to take external training courses,” he continued. “We also encourage them to establish close connections with industry associations and keep track of the latest market information.”
"In the coming years, we endeavor to further strengthen our Group in several aspects. Firstly, C&T will continue to sustain our competitive position in the market by uplifting the quality and improving the scale of economy of our remote application development centers in China.

The Group will also build strategic partnerships with selected long-term customers by providing various value-added services to their critical IT systems and applications. Besides, we will expand further the Group’s portfolio of IP-based software products through internal R&D effort as well as acquisitions.

Last but not least, the Group will also expedite additional efforts to build up a critical mass for its electronic service platforms including ETS and GETS to generate substantial recurring revenue to the Group in medium term.

“We are confident that the business transformation process will turn the Group into a stronger organization with improved business mix and more predictable revenue pattern,” Ng said.
Mr. Ng is responsible for the business development, corporate strategies, company policies and overall management of the Group. Mr. Ng has over 20 years of IT experience and is a pioneer to develop systems integration business in mainland China. Before establishing the Group, he held senior positions in companies such as Hewlett-Packard Asia Pacific Limited and Sun Hung Kai (China) Limited.

Mr. Ng is also very active in community service and professional affiliations. He is a founding Chairman and Advisor of Information and Software Industry Association, Honorable Chairman of the Research Center of Shanghai Jiao Tong University Digital Library, Member of HKSAR Chief Executive Election Committee (IT Subsector), Member of Information Infrastructure Advisory Committee (MAC), Member of SME Development Fund Vetting Committee and Vetting Member of Innovation & Technology Fund (IT Projects) of HKSAR Government, Chairman of Information Technology Sub-Committee of the Chinese Manufacturers' Association of Hong Kong, Member of Information & Communications Technology (ICT) Services Advisory Committee and China Trade Counseling Committee of Hong Kong Trade Development Council, Director of Fukien Chamber of Commerce Education Fund, Member of Vocational Training Council, Director of VTC School of Business & Information Systems.

Mr. Ng graduated from University of Manchester in UK with a Bachelor's degree in Computer Science (Hons) in 1984. His personal achievement is also well recognized. He received the "World Young Business Achiever Award" from the Worldcom Group, the "Young Industrialist Awards of Hongkong" from Federation of Hong Kong Industries, the "Ten Outstanding Young Persons Award" from Hong Kong Junior Chamber and the "Ten Outstanding Young Digi Persons" and "Hong Kong Top Ten Business Maker Award" from Hong Kong Productivity Council.
Executive Summary

Established in 1979, Culturecom Holdings Limited (Culturecom) focuses on providing Chinese IT infrastructure and building a multicultural digital network-operating environment. Also, the company has joined IBM to embed the Chinese-character generating technology into the architecture of the PowerPC microprocessor and launched the "V-Dragon CPU" in 2003, the world's first Chinese-embedded CPU for Linux.

Culturecom has developed its core architecture and a number of products which include V-Dragon Midori Core, V-Dragon CPU and RedOffice. Its embedded character generating technology is capable of generating Chinese characters directly from a CPU, thus eliminating external processing systems and massive database storage.

Culturecom has localized its products for the Mainland market and the Chinese government is its largest client. Meanwhile, its newly launched embedded V-Dragon Midori Linux standard has gained wide support from numerous companies.

The critical success factors of the company include crisis management, corporate governance, extensive expertise, collaboration with reputable companies and familiarity with the Chinese market. In future, Culturecom plans to expand its markets to Korea, Japan and other South East Asian countries. Moreover, it will further improve its core technology in the embedded system and develop more applications for Midori Linux.

"V-Dragon CPU is the world's first Chinese-embedded CPU for Linux. The greatest breakthrough is that it has changed the presentation of Chinese characters in computer systems, from graphics or fonts into processing language," said Dr. Benjamin Lau, Senior Vice President of Culturecom Holdings limited.
Company Background

Culturecom Holdings Limited (Culturecom) was established in 1979 and listed on The Stock Exchange of Hong Kong Limited in 1986. At that time, the company focused on publishing businesses. Following the financial crisis in 1998, an Australia listed company acquired 34.9% of the shares of Culturecom and expected to develop a business of “Chinese culture Technology”. After restructuring, Culturecom's core business is to provide Chinese IT infrastructure and it seeks to build a multicultural digital network-operating environment targeted at the non-Microsoft market.

In addition, Culturecom is working to provide a full range of basic technologies, products and solutions including software, hardware, personal- and network-operating environments, personal computers and Internet access to promote information technology among the general population in mainland China and other developing countries.

"Currently, only 15% of the computers in mainland China are utilized by households. The majority are used by companies and the Government," said Mr. Benjamin Lau, Senior Vice President of Culturecom. "We have the vision that IT resources should be accessible and affordable to each Chinese household and tailored in native cultural setting usable even by first time users as a productive tool."

Culturecom successfully invited Mr. Chu Bong Foo, the Father of Chinese computing from Taiwan, together with his Chinese DNA research team to join the company in 1999. Later on, the company joined IBM to embed the Chinese-character generating technology into the PowerPC microprocessor. In March 2003, the two companies launched the "V-Dragon CPU", the world’s first Chinese-embedded CPU for Linux, as the core building block for general purpose embedded system.

The company now employs more than 100 staff, with operations in Taipei, Macau and a network of Joint Ventures in various Mainland cities.

Key Products & Services

Culturecom has developed its core architecture and a number of products which include Midori Linux, V-Dragon CPU and RedOffice.

1. **Midori Linux** - A light weight Linux purposely designed by Mr. Linus Torvalds for embedded application. Midori is an ideal common Operating System (OS) to develop applications residing in various embedded devices, from smart phone to retail terminal to industrial controller. Together, Midori (OS) and the PowerPC (hardware) formed a new architecture and platform to support evolution of an ecosystem of deeply integrated embedded devices where seamless inter-device communication is a given. This new architecture aims at tapping the enormous market of home appliances in the Mainland and developing a new computing industry of "Embedded Functional Computing Devices".
2. **V-Dragon CPU** - Embedded with CPU Character Generating Technology, it can generate all currently used traditional and simplified Chinese characters directly from the CPU in native mode just like ASCII characters. The processor also offers high performance and rich peripheral mix for Chinese-enabled network computers, thin clients and mobile devices.

3. **RedOffice** - It is a Chinese desktop office solution which supports the most advanced RTF and XML formats and is compatible with the Microsoft Office format. The solution composes of six components enabling word processing, spreadsheet processing, presentation slides, vector graphics generation, Chinese web pages development and formula calculation. Addition security features are also available for protection and authentication purpose typically required in communicating official information.

### Competitive & Excellence

Developed by Culturecom’s Vice Chairman Mr. Chu Bong Foo, the embedded character generating technology is capable of generating Chinese characters directly from a CPU, thus eliminating external processing systems and massive database storage. Moreover, it enables efficient integration of Chinese-language computing into CPU chips and makes possible the creation of intelligent appliances, especially for portable equipment, with highly efficient Chinese processing.

The Chinese-character generating technology has embedded into the architecture of the PowerPC microprocessor and developed the V-Dragon CPU. “V-Dragon CPU is the world’s first Chinese-embedded CPU for Linux. The greatest breakthrough is that it has changed the presentation of Chinese characters in computer systems, from graphics or fonts into processing language,” said Lau.

Moreover, embedded technology is advanced in speed and security and Culturecom has combined three leading embedded technologies to develop the new architecture, in which Midori Linux is regarded as most flexible and extendable in the Linux and embedded world.

According to University of California, Los Angeles (UCLA)’s report “The Culturecom SCS (Single Chip System) 1610 Processor for Chinese Character Generation”, the Culturecom SCS Chinese character generation algorithm is an admirable solution to the competing constraints of character set size, memory, speed and aesthetic quality and is of unique intellectual value which cannot be duplicated by other companies easily.

Cost effectiveness is another critical advantage of the V-Dragon CPU. With the recent launch of the embedded V-Dragon Midori Linux standard, some main components and devices manufactured under this standard can be much cheaper than those under the Wintel (Windows and Intel) x86 standard, with cost savings expected to be approximately 70%. “With this new standard, the price of a normal PC will be just one-fifth as before,” said Lau.

The innovative technology of Culturecom won the Hong Kong Awards for Industry: Technological Achievement Award in 2003.
Culturecom has localized its products for the Mainland market and the Chinese Government is its largest client. The company won the bid in the Chinese Government purchase of office software and provided 4,000 sets of Redoffice suite to the Beijing Government departments, accounting for four-fifth of the total office software used there.

Furthermore, the regional Government of Guangdong's Yunan has deployed the embedded V-Dragon Midori Linux standard to establish local IT infrastructures, aiming to turn Yunan into a manufacturing and assembly base.

The newly launched standard of Culturecom has gained wide support from numerous companies including the General Plan Multimedia Technology Group, Taiwan's Great Tone Technology Limited and the US-based Hughes Network Systems. These companies plan to use Culturecom's V-Dragon motherboards to develop different products. The major clients of Culturecom are listed in table 1.

### Table 1. Major client list

<table>
<thead>
<tr>
<th>Client</th>
<th>Project</th>
<th>No. of CPUs and Motherboards sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Datang Telecom</td>
<td>Tax Terminals</td>
<td>&gt; 300,000</td>
</tr>
<tr>
<td>Daiwa Industrial (Great Tone Industrial Limited)</td>
<td>DVD computer</td>
<td>&gt; 1,000,000</td>
</tr>
<tr>
<td>Hughes Network</td>
<td>DVD computer</td>
<td>&gt; 300,000</td>
</tr>
<tr>
<td>Xin Fai Industrial Limited</td>
<td>VoIP Phone (image phone)</td>
<td>&gt; 200,000</td>
</tr>
</tbody>
</table>

### Critical Factors

The following factors has led to the success of Culturecom:

1. Crisis management. With the sophisticated crisis management of Culturecom, the company has no long-term debt and low investment risk. Also, by outsourcing many of its risk-bearing activities, the company can focus on its core competence and maintain a smooth business operation.

2. Corporate governance. The management team has set a clear direction for the company and a foresight in the enormous and fast-growing Chinese market.

3. Extensive expertise. The company has expertise on Chinese character categorization, Chinese culture, linguistics and embedded technologies. Combined with its pool of talents, the company is able to develop advanced and unique technologies for the Chinese market.
4. Collaboration with reputable companies. Culturecom is a very close partner of IBM which is technically supporting its product development. Also, the company has acquired the control and management rights of Midori Linux to strengthen its technical base.

5. Familiarity with the Chinese market. With close collaboration with Chinese professors and business professionals, the company is very familiar with the Chinese market in terms of its cultural background, market potential and central policies. Such information has greatly facilitated its business development in the Mainland.

Future Plans

"We plan to expand our markets to Korea, Japan and other South East Asian countries later on. Also, we will further improve our core technology in the embedded system and develop more applications for Midori Linux," Lau concluded.

Bibliography

Dr. Benjamin Lau, 
Senior Vice President of Culturecom Holdings Limited

Dr. Benjamin Lau PhD, CFA, completed his graduate study from the Kellogg School of Business (Northwestern University) and received his PhD from the School of Economics - University of Chicago. His major research area was in Risk Management - systematic risk and its macroeconomic impact. In 1990, Dr. Lau was appointed to the United States Senate as a Senior Consultant of Far East Economic Affairs and was the winner of 1996 Ben Gurion Award (American Science Foundation).

He has also lectured in numerous universities (Northwestern University, University of Chicago - Gleacher Business School, University of Wisconsin, Hong Kong Polytechnic University and The University of Hong Kong). Locally, Dr. Lau has served as a member of the Risk Assessment Committee of a banking regulatory agency and the Vice President of Jing Tai Securities & Investment Ltd. He is currently serving in the board of various local technology companies and investment banks.
Executive Summary

e-commerce Logistics Group (eCL) is a leading third party e-logistics service provider in Greater China. The company provides supply chain management services, integrating consultancy, information systems and physical logistics services. It is able to differentiate itself from others by its customer centric approach with innovative e-logistics solutions.

The key product of eCL, Warehouse Management System (WMS), is a web-based solution to enhance operational efficiency and visibility to management. The system combines operation experiences with innovative technology and is developed on a module basis to increase the flexibility for users.

eCL received the overall highest rating in a IDC report "The eLogistics Market in Great China: Trends and Analysis" in 2001 and won two IT awards in 2002 and 2003. The company has a wide range of customers in Greater China including global and regional brands, retailers, distribution and logistics companies.

In-depth industry knowledge, close communications with the potential users, proven technology and extensive expertise are important for eCL to succeed in the market. In future, the company is going to productize WMS into a standardized package and expand its warehouse network in the Greater China.

"We collaborated with Huaxin to develop an e-platform to support their logistics services in the Pearl River Delta in 2003. This project involves a total investment of RMB50 million and will take three years to complete," said Mr. Edmon Fung, Chief Operating Officer of e-commerce Logistics Group. "It is one of the twelve key projects announced by the municipal government of Guangzhou."
Company Background

Established in 1999 and headquartered in Hong Kong, e-commerce Logistics Group (ecL) is a leading third party e-logistics service provider in Greater China. By using innovative information technologies and state-of-the-art distribution facilities, the company aims to offer the highest quality value-added logistics solutions to global brands, manufacturers and retailers throughout the Greater China region.

ecL provides supply chain management services, integrating consultancy, information systems and physical logistics services. The company is able to differentiate itself from others by its customer centric approach with innovative e-logistics solutions. "Our company is a technology driven logistics company focusing on the information flow," said Mr. Edmon Fung, Chief Operating Officer of ecL.

The company has been expanding its distribution network in Greater China with self-managed logistics and fulfillment centers already established in Hong Kong, Taiwan, Shanghai, Guangzhou, Beijing, Wuhan, Shenyang and Chengdu. Customers can store goods in ecL's warehouses in Hong Kong and request to fulfill orders in mainland China.

Currently, the company operates 18 fulfillment and logistics centers, of which three in Hong Kong, seven in Taiwan and eight in mainland China, with a total of over 1.2 million square feet.

Key Products & Services

Warehouse Management System (WMS) is the key product developed by ecL. It is a web-based solution to enhance operational efficiency and visibility to management. The system is based on the "many-to-one, one-to-many" concept and enables fulfillment for bulk amount of Stocking Keeping Units.

The system combines operation experiences with innovative technology. Through database management, barcode system, Palm™ technology and open web platform, customers can check/download real-time inventory information and transaction history, place orders, check status, handle payment and monitor the warehouse operation.

WMS is developed on a module basis so as to increase the flexibility for users. The modules include Warehouse Operation Module, Inventory Management Module, e-commerce Module, Information Management Module and Integration Module.
Competitive Edges & Excellence

ecL develops WMS and owns the source code, thus enabling easy customization and continuous enhancement. “We utilized six months to develop the system. After its deployment, we keep on improving it based on our practical experience and users’ opinion. Today, the system is 80% different from the original version,” Fung expressed.

WMS is a web-based system which allows real-time operation and interaction with users. Also, it is module-based and allows high flexibility for users to choose their desirable modules. With the open platform of WMS, it can integrate easily with different systems.

Furthermore, the system has the advantages of minimizing mistakes and increasing security. Before using the system, the whole logistics process involves a lot of manual procedures. However, with WMS, the whole process can be automated through online operation. As a result, the number of mistakes is reduced while the security level is raised as only a few people involved in the process can access the system.

Since ecL also provides physical logistics services to its clients and uses WMS as well, it has hands-on experience and knows very well which areas can be enhanced. Moreover, the company will arrange its warehouse supervisors to conduct training with its clients. Since the warehouse supervisors are most familiar with the system, they can train the clients and share their experience from the users’ point of view. Also, ecL has different warehouse supervisors specializing in different industries so the company can assign the right supervisors to train clients from different industries.

The company employs the ASP model which charges users by transaction volume and monthly fee. Users can first subscribe for a short period to see whether the system is suitable or not.

In 2001, ecL received the overall highest rating in a IDC report “The eLogistics Market in Great China: Trends and Analysis”. Later, the company won two IT awards including Hong Kong IT Excellence Awards (Application Gold Award) in 2002 and Certificate of Merit, Best of Industrial Application in the Asia Pacific Information and Communication Technology Awards in 2003.

Track Records

ecL has a wide range of customers in Greater China including global and regional brands, retailers, distribution and logistics companies. One of its major clients, Huaxin Group (Huaxin), is a leading retail distribution group in southern China distributing to over 3,000 outlets.

“We collaborated with Huaxin to develop an e-platform to support their logistics services in the Pearl River Delta in 2003. This project involves a total investment of RMB50 million and will
take three years to complete," said Fung. "It is one of the twelve key projects announced by the municipal government of Guangzhou."

With the assistance of WMS, the products distributed by Huaxin have increased by 2,000 types and its business has grown by 50%.

Another important client of ecL is a large cosmetic distributor in Hong Kong. After using WMS, more than 200 clients of the distributor worldwide can access ecL’s services via the web. Now, the distributor is able to handle 12 brands with 23,000 kinds of products and its turnover has increased by 30% without any increments in stock and logistics costs.

"WMS is suitable for any kinds of business with warehouse operation and it is particularly useful for those with complicated product types, diversified delivery and small order fulfillment. The power of ecL can be fully realized in those cases," said Fung.

Other key clients of ecL include Kolin Group, Focus Logistics, ViewSonic, Alpha Logistics and a major wine distributor in Hong Kong.

Critical Factors

ecL had encountered numerous challenges when introducing the system to its clients initially. Many users did not accept new technologies and many companies were not ready to deploy new IT solutions given their non-systematic processes and outdated practices. To overcome these difficulties, the company worked hard to introduce its concept and initiate more communications with the potential users. In the mean time, the company encouraged users to try the system by subscribing for a short period.

"During the early deployment of WMS, only 13% of our clients use the system together with our warehouse services. But now, more than 97% of our clients are users of the system," said Fung.

Proven technology and extensive expertise are undoubtedly important to succeed. With the strong technological capability of the system, ecL is highly confident that users will be impressed with its services after trying and experiencing the benefits of the system.

Furthermore, the company employs a number of experts who specializes in different areas including hardware, software, palm, web design, engineering, system security, business development and management. The close cooperation among these experts has facilitated the success of ecL.
Future Plans

"Productization is the key focus of our future development," Fung said. "We would like to utilize our existing infrastructure to develop WMS into a standardized package," Fung added.

With the assistance of WMS, ecL is going to expand its warehouse network so as to enhance its delivery services in the Greater China.

Bibliography

Mr. Edmon Fung,
Chief Operating Officer of e-commerce Logistics Group

Mr. Edmon Fung Cho Kie is the Chief Operating Officer of ecL. Mr. Fung has over 23 years of extensive operating experience in customer service, order fulfillment and warehouse operation throughout Greater China.

Prior to joining ecL, Mr. Fung was Managing Director and Chief Executive Officer of Lyreco (HK) Company Limited (previously known as Office Partners (HK) Company Limited), the first Asian operating subsidiary of the Lyreco Group. Headquartered in France with subsidiaries in 16 countries, Lyreco Group is one of the leading distributors of office products in the world. Mr. Fung founded Stationery Store Company Limited ("Stationery") in 1989, later renamed as Office Partners. Due to its fast development and leading position in the industry, Stationery merged with Climax International Limited, a major paper product marketing and manufacturing company listed on the Hong Kong Stock Exchange. Lyreco Group acquired Office Partners in 1998. Mr. Fung is also the majority shareholder of Stationery World Company Limited, a leading distributor of office supplies in mainland China, with full operating subsidiaries in Guangzhou, Beijing and Shanghai.
ecVision Limited

Executive Summary

ecVision Limited (ecVision) specializes in Supplier Relationship Management (SRM) solutions to improve the supply chain processes, operational efficiency and business competitiveness for many top-tier private label retailers, brand manufacturers and OEM factories worldwide. More than 1,000 companies are using the company’s products in over 40 countries.

Established in 1998, the company now has around 70 employees, with offices in US, Hong Kong, mainland China and Taiwan. It has successfully obtained funding from the HKSAR Government and venture capital firms to finance its product development and global expansion.

The flagship products of ecVision are XpressCommerce®, XpressChain® and XpressB2B®. ecVision adopts XML and J2EE technologies to fulfill customers’ real-time SRM requirements and satisfy their e-commerce needs. Most importantly, it is capable of rolling out its services to address different operation scales and business requirements.

The success of the company is attributed to its commitment on services, technological innovation, strong domain knowledge and expertise, together with its focus on global business and market.

ecVision continues to invest in new technologies and develop new products and services. It will also further develop the European and Mainland markets.

“More than 1,000 companies are using our products in over 40 countries. Many major US companies use our B2B exchange to collaborate with their trading partners. They include J.C. Penney, Gap, Limitedbrands, Nordstrom, Abercrombie & Fitch, Tommy Hilfiger, L.L.Bean, Texas Instrument and Stanley Works,” said Mr. Thomas Ng, Founder and CEO of ecVision Limited.
Company Background

Founded in April 1998, ecVision Limited (ecVision) is a leading provider in Supplier Relationship Management (SRM) solutions to optimize the relationships with suppliers and create a private trading exchange for improved communications with overseas partners. Currently, the company has around 70 employees, with offices in US, Hong Kong, mainland China and Taiwan.

In July 1999, ecVision secured US$2 million from the Applied Research Council to launch new products and expand sales and marketing presence to the US market. In October 2000, the company concluded its second round of financing with US$15 million from J P Morgan Capital Corporation, Morgan Stanley Dean Witter Private Equity, GIC and Walden International Investment Group. The funding enabled the company to continue its global expansion and plan for further innovation and technology development.

The success of ecVision in fund raising can be attributed to a number of factors, including its focus on international trade and the global market, good reference cases and a list of paying customers, together with its leading technology (the company is a pioneer in using the XML technology to replace traditional EDI).

"US retailers and manufacturers want to improve supply chain management with their OEM factories in Asia. However, many Asian manufacturers do not have the IT skills nor can they support the IT infrastructure," said Mr. Thomas Ng, Founder and CEO of ecVision. "We can bridge this gap and assist Asian exporters to satisfy their US clients' requirements.

The company's primary goal is to provide latest technologies to improve the supply chain processes, operational efficiency and business competitiveness. The major sectors served are manufacturing, retail, export, trade finance and logistics in Asia, Europe, the Middle East and US.

Key Products & Services

ecVision leverages the power of XML and J2EE to fulfill real-time SRM requirements. Its product line consists of:


Our domain knowledge is in global sourcing management and order fulfillment system. We have in-depth knowledge and can advise large retailers in US how to implement SRM programs in Asia,” said Ng.

The company also provides comprehensive services to make e-commerce easy and cost-effective for trading partners around the world. Its professional services cover all aspects of supply chain management, including implementation services, rollout support, business consulting, resources outsourcing and customer support.

Moreover, the company partners with global leading technology companies and has around 20 value-added resellers in overseas countries to deliver its solutions and provide local support.

**Competitive Edges & Excellence**

In the past, communication via EDI was costly and required skills that most Asian companies didn't have. Our solutions utilize the Internet to satisfy customers’ e-commerce demand and improve collaboration at a lower cost,” Ng expressed.

The key competitive edges of ecVision and its solutions are:

- **Strong domain knowledge and experience** — The company has in-depth industry knowledge and understands the complex relationships of different parties involved in the supply chain.

- **Latest technologies** — Its solutions adopt multiple open-standard technologies including Java and XML. The infrastructure of the products is highly scalable, secure and robust, thus allowing rapid integration with different third-party products.

- **Capability to roll out services for businesses of all sizes** — The company takes advantage of the Internet technologies and is able to roll out its solutions for small to large-scale establishments in different locations. Its solutions have many versions and different integration levels designed for different operation scales and user requirements.

‘Implementation is most critical. To show our commitment and guarantee customers only need to pay in full if they are satisfied with the rollout,” he said. Initially, customers only have to pay a small upfront fee so their risk is small. ‘This message gives them confidence,’ he continued. ‘At the end of the day, they get their money worth.”

One of ecVision’s products, XpressCommerce®, won the Hong Kong Awards for Industry, HKITCC Technological Achievement Award in 1999. This reflects the company’s excellence in technology development.
Track Records

ecVision is a preferred provider of SRM software for many top-tier private label retailers, brand manufacturers and OEM factories worldwide.

"More than 1,000 companies are using our products in over 40 countries. Many major US companies use our B2B exchange to collaborate with their trading partners. They include J.C. Penney, Gap, Limitedbrands, Nordstrom, Abercrombie & Fitch, Tommy Hilfiger, L.L.Bean, Texas Instrument and Stanley Works," Ng expressed.

One large-scale project implemented by ecVision is for Abercrombie & Fitch, one of the top US apparel chains providing high-quality merchandise. Abercrombie & Fitch has adopted ecVision's XpressCommerce® to improve its sourcing operations, allow its worldwide vendors to access all production information and enable users to complete tasks online. The solution directly integrates with Abercrombie & Fitch's purchase order solution and its logistics tracking solution for end-to-end visibility throughout the entire sourcing process.

In particular, the XpressCommerce Process Tracking module enables the company to manage tasks and receive real-time status updates from its vendors. Any process that requires milestones to be met on a timely basis can be followed efficiently through online tracking. Consequently, tracking efforts are greatly reduced and significant time saving is achieved: 1) time for tracking is reduced by 20%; 2) time for searching email and other information is reduced by 90%; 3) time for staff going to different departments and getting all the necessary information is reduced by 50%. Moreover, staff turnover is reduced by 75% as employees do not need to work for long hours.

"The flexibility of our solution has enabled Abercrombie & Fitch to apply it to different departments," he said. "It is important to demonstrate to your client that you are capable of rolling out the solution and do what they want."

Critical Success Factors

ecVision has established its prominent market position by emphasizing on the following factors:

- Commitment on services The company guarantees customer satisfaction through its strong commitment on services. Customers need to pay the full project value only if the rollout of the solution is successful. Moreover, the company also offers services on a subscription basis so customers can pay over a period of time, thus lowering their upfront investment cost.
Technological innovation. ecVision can get in touch with the most advance technologies through its US office and keep track of the promising technology development. It then applies the latest technologies to develop new products. It has succeeded in identifying and implementing winning trends such as XML, J2EE and recently Radio Frequency Identification (RFID) in its products.

Strong domain knowledge and expertise. The company has strong industry knowledge (top management has over 20 years of experience in the IT field), innovative products and service capability to roll out its solutions for small to large customers in different regions.

Global business and market. The company focuses on international trade and has global market coverage. It has identified the right markets with a sizable scale including Asia, Europe, the Middle East and US.

**Future Plans**

"Besides our major clients in US, we shall pay more attention to different markets such as Europe and mainland China," Ng noted. The company will drive its business growth through partnership. It wants to add more partners and leverage on the partners' resources and network for marketing and support.

ecVision will continue to invest in new technologies such as RFID to develop new products and services. "We see that there is a need to integrate the workflow and information flow. We shall develop new products to address this area," he added.
Mr. Thomas Ng,  
Founder and CEO of ecVision Limited

Mr. Thomas K. Ng is one of the founders and CEO of ecVision Limited, a leading provider in Supplier Relationship Management solutions. He has over 20 years of experience in the software industry spanning US, Europe and Asia.

Mr. Ng has held senior management positions at various multinational companies. Before joining ecVision, he was the Executive Director of Asian Sources, renamed Global Sources, and was responsible for their e-commerce software products. Prior to joining Asian Sources, Mr. Ng was the Senior Vice-President and Chief Technology Officer of Computer Associates in Asia. He has also held other senior positions at Computer Associates, including Managing Director for Hong Kong and Taiwan.

He graduated from the State University of New York at Stony Brook with a Bachelor of Science degree in Computer Science and Economics.
Executive Summary

Founded in 1988, iASPEC Services Limited (iASPEC) is a leading IT consulting and professional services company providing business process re-engineering consulting, systems architectural design consulting, software development, system integration and application hosting services. The company maintains its headquarters in Hong Kong and it operates a software development center in the city of Shenzhen.

iASPEC stresses on customer and quality services. It has adopted highly disciplined methodology to ensure requirements and expectations of the clients are fully met in all its engagements. The company has obtained ISO 9001:2000 for its software development process in its software development center.

In addition to total customer satisfaction, the company believes that continuous improvement on the skills of its staff is important for company growth. Therefore, it encourages its staff to participate in professional development activities and sponsors them to acquire relevant professional qualifications.

iASPEC has been putting more emphasis on the development of international markets to sustain its growth. Offshore software development outsourcing services is one of the practices it is cultivating to grow.

"Over the years, we are proud of ourselves providing consulting services for designing the IT architectural frameworks for many of our clients including some government users around the world. Through our international partnership, we have included the California States Government, New Zealand Government, Beijing Municipal Government and other governments agencies in various cities of the Mainland as our valued clients," said Dr. C.K. Wong, Managing Principal of iASPEC Services Limited.
**Company Background**

IASPEC Services Limited (IASPEC), formerly known as UNI-Tech Technologies Limited, is a leading IT consulting and professional services firm founded in 1988. The major markets served by the company are Hong Kong and mainland China. By working with its associated companies and alliance partners, IASPEC has extended its services to other parts of the world, including North America and New Zealand.

The company's major industry focuses are government, public, logistics, transportation as well as telecommunication and data communication sectors. Equipped with years of industry expertise in application development and consulting services, IASPEC offers the best-of-breed solutions and services to meet the diverse business needs across different industries.

The company has an office in Hong Kong and a development center in Shenzhen, employing a total of 96 staff.

**Key Products & Services**

The services IASPEC provided include business process re-engineering consulting, systems architectural design consulting, software development, systems integration and application hosting services.

The company has a strong architectural team of six principal consultants who has rich experience in various areas of architectural design including business architecture, information system architecture, security architecture, data architecture and technical architecture. With its technical competence, IASPEC obtained Shenzhen City Class-1 System Integration Certification and granted China Top 100 Software Company Award in 2002.

"We are particularly strong in IT architectural design. We are very focused on assisting our clients in making full use of their information assets and the integration of their enterprise applications step by step," said Dr. C.K. Wong, Managing Principal of IASPEC.

Wong added that a solid IT architectural framework is important for any business making use of information technologies. This is particularly true for large-scale IT system implementation projects (see table 1).

"Over the years, we are proud of ourselves providing consulting services for designing the IT architectural frameworks for many of our clients including some government users around the world. Through our international partnership, we have included the California States Government, New Zealand Government, Beijing Municipal Government and other governments agencies in various cities of the Mainland as our valued clients," Wong expressed.
iASPEC emphasizes the importance of understanding customer needs to provide value-added services and practical solutions. "Very often poor and incomplete user requirements during the early software development cycle will inevitably lead to project failure," said Wong.

In view of this, iASPEC adopts an iterative user-interface design and prototyping approach to define user requirements. Given a clear and accurate requirement specification document developed with this approach, users can verify and refine their requirements more effectively, thus leading to an increased customer satisfaction.

"To make the projects more successful, we involve our customers in each development stage to ensure that we are going on the right direction. Our customers are just like members of our project team," he expressed.

iASPEC's achievements and its quality services can be reflected by the credentials it obtained:

Certification:

- 2002 ISO 9001:2000 Certified Software Development Center
- Shenzhen City Class-1 System Integration Certification
- Certified Member of Shenzhen City Hi-tech Enterprises

Awards:

- 2002 China Top 100 Software Company Award 2002
- 2001 Shenzhen City Software Products Excellence Award (eLogistics and eCommunity Products)
- 2000 Shenzhen City Software Products Excellence Award (eLogistics and eCommunity Products)
IASPEC has engaged in various large-scale IT projects in government as well as public and logistic-related sectors in Hong Kong, Mainland China, US and New Zealand. It has earned an impeccable reputation for reliable quality services with its blue-chip client list.

“Our target is to give our worldwide clients the best IT consulting and software development services needed to support their growth in the new economy,” said Wong.

Table 1 lists some of iASPEC’s major projects. For example, the project for Commerce, Industry and Technology Bureau, HKSARG covers the whole criminal justice value chain that spans 13 government bureaus and departments.

Table 1. Major iASPEC projects

<table>
<thead>
<tr>
<th>Clients</th>
<th>Projects</th>
</tr>
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<tbody>
<tr>
<td>Commerce, Industry and Technology Bureau, HKSARG</td>
<td>• Provision of feasibility study and architectural design on the development of an Integrated Criminal Justice System.</td>
</tr>
<tr>
<td>Hong Kong Air Cargo Terminal Limited</td>
<td>• Provision of professional services to the company in the strategy study, architectural design and key technology component development for the downsizing of its mainframe-based COSAC system to multi-tier UNIX based architecture.</td>
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<tr>
<td></td>
<td>• Development of a second generation Internet based, remote user interface to the COSAC On Internet System.</td>
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<tr>
<td></td>
<td>• Provision of architectural design consulting, system design and software development services for the major components of the Logistic Control System.</td>
</tr>
<tr>
<td>Department of Justice, California States Government, US</td>
<td>• Provision of on-site consulting, offshore software design, development and testing services in Hong Kong and mainland China.</td>
</tr>
<tr>
<td></td>
<td>• On-site implementation of an XML based Message Presentation Layer software for the support of the California Criminal Justice Information System.</td>
</tr>
<tr>
<td>Capital Information Corporation of the Beijing Municipal Government</td>
<td>• Provision of the business and technical consulting, architectural design, systems design and implementation services of e-Government IT infrastructure.</td>
</tr>
<tr>
<td>Standard Chartered Bank, Asia Region</td>
<td>• Design and development of the bank’s Internet Personal Banking System.</td>
</tr>
<tr>
<td>New Zealand Government</td>
<td>• Provision of architectural design and solution development services for a centralized public record-keeping system.</td>
</tr>
</tbody>
</table>
Critical Success Factors

iASPEC is committed to total customer satisfaction. Through implementing best practices and quality services, the company ensures its clients reap full benefit from their IT investments.

"The best practices include establishment of the role of QA (quality assurance) principals in every project. Through approved project quality plans, QA principals ensure the quality of the services and deliverables. They also work with our clients at the end of each project for a post project review to identify areas of improvements. Customer satisfaction ratings are jointly developed by the QA Principals and our clients," Wong explained.

In addition, the company stresses on continuous improvement. "Not only our services but also the skills of our staff should be upgraded from time to time," He added.

People is an important asset of iASPEC and is crucial to its success. The company emphases on staff development and strongly encourages its staff to enrich their IT knowledge. Moreover, the company fully subsidizes its staff to acquire relevant professional qualifications.

"All professional services staff of our company are required to spend a minimum of 40 hours per year on group-based professional development activities. These include attending seminars, conferences, forums, training courses and contributing time to work in professional societies," said Wong.

Future Plans

In view of the growing outsourcing needs worldwide, the company will steer some of its focus to the international software outsourcing markets.

iASPEC will align with overseas partners to provide offshore software development outsourcing services. The company has reached agreements with a number of US based companies to form strategic alliance to promote the software development outsourcing business.
Biography

Dr. C.K. Wong,
Managing Principal of iASPEC Services Limited

Dr. Wong is the Founder and Managing Principal of iASPEC Services Limited, an IT consulting and software development services company established in Hong Kong since 1988.

Dr. Wong obtained his Ph.D. degree in Mathematics from the University of California. He served as the Principal Architect in a State of California Government data centre from 1975 to 1981. He received the Distinguish Services Award from the California Government in 1979. Dr. Wong returned to mainland China in 1982 and has served as a consultant to many state-operated organizations and has held senior positions in international IT companies in the Mainland and Hong Kong.

Dr. Wong is committed to the development of a strong information industry in the region. He is a Fellow of the Hong Kong Computer Society, Chairman of the Hong Kong ASP Industry Consortium and Deputy Chairperson of the Pearl River Delta Software Alliance. He serves as member in the Advisory Committee of various schools and departments in the University of Hong Kong, the Chinese University of Hong Kong, the University of Science and Technology, the City University of Hong Kong and the Hong Kong Polytechnic University. Dr. Wong is also serving as member of Advisory Committee on Creative Industry of the Central Policy Unit; member of the Information Technology Advisory Committee on Application, Communication and Technology Branch.
Executive Summary

Infrasys (HK) Ltd. (Infrasys) was founded in 1994 by a group of IT professionals with rich experiences in the hospitality industry. Its flagship product, Gourmate® Restaurant Management System has been widely installed in over hundreds of sites, ranging from small to very large-scale operation and enjoyed high reputation in the hospitality industry. It is a multi-language point-of-sales (POS) system for enhancing workflow management and maximizing profits for hotels, restaurants and clubhouses. Also, the system can be integrated with different hotel and membership management systems in order to enhance the overall workflow and management of hotels and clubs.

With Infrasys' accumulated experience and continuous enhancement on product features, Gourmate® has comprehensive functionality and is flexible, reliable and scalable for various restaurant operations. It has installations all over the world, including Hong Kong, mainland China, most Asian countries, Canada and even Fiji Islands and the Maldives.

The success of Infrasys is attributed to the superb reliability of its products and its rich knowledge of the hospitality industry, strong technical skills and management expertise, alliance with Epson, network of dealers/channels, reputation and customer loyalty as well as system stability.

In future, the company will continue to focus on POS system while geographically it will further expand its market share to the existing markets and look for growth opportunities in new markets. Vertically, it will develop more new products to extend its product line.

"Infrasys is now having over 90% of the Chinese restaurant market share in Hong Kong. We have most 5-star international hotel chains, well-known restaurant groups and prestigious clubhouses as our users," said Mr. Alex Chan, Managing Director of Infrasys (HK) Ltd.
Company Background

Infrasys (HK) Ltd. (Infrasys) was founded in 1994 by a group of IT professionals with rich experiences in the hospitality industry. The goal of the company is to build a cost-effective point-of-sales (POS) system with the state-of-the-art PC-based open system technologies available in the market place. Its expertise in the industry has made it a fast-growing and the most successful restaurant system developer.

Infrasys’ flagship product, Gourmate®, has been widely installed in over hundreds of sites, ranging from small to very large-scale operation. It has long been famous for its multi-language capability and its superb reliability, thus attracting a group of renowned clients as its loyal customer base, including Shangri-La Hotel and Resorts, Intercontinental Hotels Group (Holiday Inns, Crowne Plaza & Intercontinental), Starwood Hotels & Resorts (Westin & Sheraton), Hong Kong Jockey Club and Mission Hill Golf Club,

Since 1998, Seiko Epson Corporation (Epson) has substantially invested in Infrasys for its global expansion. With a solid foundation in Hong Kong, the company has successfully expanded its operations internationally to mainland China, Singapore, Malaysia, Indonesia, Canada and Fiji Islands. The company now has about 30 employees, with branch offices and dealers located around the world.

Key Products & Services

The key product of Infrasys - Gourmate® is a multi-language POS system specially designed for the hospitality industry. The system is used for direct ordering, receipt printing, menu maintenance, table management, cost calculation, report generating in restaurants and bars, customer loyalty program management and business analysis. It can help increase efficiency by improving communications between different departments in a restaurant and maximize profits by thorough analysis and the implementation of POS-integrated customer loyalty program.

The comprehensive features and pioneer technology of the system have attracted lots of users. "Infrasys is now having over 90% of the Chinese restaurant market share in Hong Kong. We have most 5-star international hotel chains, well-known restaurant groups and prestigious clubhouses as our users," said Mr. Alex Chan, Managing Director of Infrasys.

Competitive & Excellence

Infrasys has continuously invested in product development. With their accumulated experience and continuous enhancement on product features, the system has covered almost all the required functions for the hospitality industry. Also, the system is highly reliable when running continuously so it can ensure smooth operation of their clients.
The system can be customized flexibly to meet the needs of their diversified customers. The modular design can be easily and dynamically adjusted to address users' needs. More importantly, the system can be integrated with other existing systems of their clients. In order to further facilitate the performance of the system, various hardware designs are available for different business natures, including touch-screen or keyboard-based workstations, RF-based handheld terminals, dot-matrix kitchen printers, thermal guest check printers and all-in-one station etc.

Moreover, the system enables operators to switch among up to three languages for ordering and receipt printing. The supporting languages include many Asian languages such as Traditional Chinese, Simplified Chinese, Japanese, Korean and Thai. Such real-time language switching capability is pioneered by Infrasys in the hospitality industry.

"Many products being used in the hospitality industry currently are invented by us. We are leading the development of the industry," Chan expressed.

Also, the company continues to spend efforts on developing turn-key solutions like wireless ordering and CRM deployment for the hospitality industry. It has designed its own mobile device for wireless ordering and provides PocketPC PDA solution as well. It is believed that the company can stir a heat in the industry for wireless ordering.

The company has deep insights in the industry and understands that users would not be satisfied with a POS system just for workflow management and business analysis. Infrasys goes one step further by introducing a revenue-generating tool for the POS system - WorldBonus.com. WorldBonus.com is web-based customer loyalty program management platform which can be fully integrated with the POS system. Infrasys believes that this tool would help users to increase bottom-line profits and retain their most profitable customers.

Infrasys' remarkable achievements in the hospitality industry and continuous commitments in R&D have been recognized by the industry experts and the public, thus achieving a number of industry awards:

Awards:

- 2002 Asia/Pacific Information and Communications Technology Awards (APICTA) Winner in Business Applications Category
- 2001 Gold Award of the Product Category in IT Excellence Awards 2001
- The Hong Kong Awards for Industry, the Hong Kong Science & Technology Park Certificate of Merit in Technological Achievement
- Innovative Web Solution Award from PCCW
- 1999 Certificate of Appreciation from the Hong Kong Jockey Club
Track Records

The Hong Kong Jockey Club is one of Infrasys’ major clients. The project is important to Infrasys since it was one of the biggest POS contracts in Asia, with over 50 catering outlets inside the 2 racecourses and 3 clubhouses connected to 5 RAID-based servers and the Club’s fiber network. The total project amount exceeded HK$7 million.

Infrasys won the contract in May 1999 after beating several leading POS system developers. The selection period lasted over 6 months and the Hong Kong Jockey Club finally selected Gourmate® because of its reliability, scalability and flexibility in providing a total POS solution with true multi-language capability. Also, Infrasys needs to interface the POS system with the Club’s membership, finance and EATEC systems. The project was a triumphant success and the Club awarded the Certificate of Appreciate to Infrasys for the company’s professionalism demonstrated in this project.

Shangri-La Hotel and Resorts, another major client of Infrasys, has assisted the company to enter the Mainland and international markets. Started with Kowloon Shangri-La, Infrasys has deployed its POS solutions in more than 20 Shangri-La hotels around the world. In order to ensure smooth operation of the system installed in different cities, Infrasys cooperates with local dealers to provide first-line support for the system. “In order to provide the best customer services, no matter how remote is our client, we will locate a dealer in that place to support them,” said Chan.

Infrasys has a list of reputable clients in the hospitality industry including Shangri-La Hotels & Resorts, Intercontinental Hotels Group (Holiday Inn, Crowne Plaza & Intercontinental Hotels), Starwood Hotels & Resorts (Westin & Sheraton Hotels), Grand Hyatt, Harbour Plaza Hotels, The Hong Kong Jockey Club, Hong Kong Catering Management Group, Mission Hills Golf Club, Cafe de Coral Group, Ho Choi Restaurant Group, Super Star Seafood Restaurant, King of the King Restaurant Group, Federal Restaurant Group, Pokka Cafe, Beijing Shun Fung F&B Ltd. and Tang Gong Seafood Restaurant.
Critical Success Factors

The success of Infrasys is attributed to the following factors:

1. Rich knowledge of the hospitality industry. The founders of the company are very familiar with both the IT and hospitality industries so they can develop one of the most reliable and scalable POS systems.

2. Sensitive to market needs. Infrasys could observe the industry needs (e.g. the need for a multi-language system) at the very beginning and so started with a market niche particular for the Chinese restaurant operations which are very complicated in nature. Infrasys has already started to develop the next generation POS solutions.

3. Strong in technical skills and management expertise. The company was founded by a group of IT professionals with rich industry experience. It has a strong technical team capable of developing its products at different operation levels. Also, the management has the expertise and experience that have facilitated the company’s success.

4. Alliance with Epson. A substantial share of Infrasys was acquired by Epson in 1998. With the reputation and expertise of Epson, clients are more confident on the technology and continuity of Infrasys.

5. Network of dealers/channels. Infrasys has identified reliable partners in different cities so as to assist the company to expand its global business. Currently, it has a dealer network covered 10 countries.

6. Reputation and customer loyalty. Good reputation is established by loyal and happy clients. Since the clients are very satisfied with Infrasys' services, they always act as referees for the company.

7. Selecting the right technologies. Infrasys chose UNIX and then LINUX for product development at the very first stages. Recently, Infrasys developed another Windows-based solution on the stable Windows 2000 system.

Future Plans

Infrasys will continue to focus on POS system while geographically the company will further expand their services to different areas including Canada, mainland China and other Asian countries. “The Mainland will be our major target of development. Currently, there are 3.8 millions of restaurants in the Mainland that don't have a computer system so we will have a great room to develop,” said Chan.
Mr. Alex Chan is currently the Managing Director of Infrasys (HK) Ltd. After graduated with Bachelor Degree in Business Administration at the Chinese University of Hong Kong, Mr. Chan joined Burroughs (now called Unisys) and spent several years in the sales field for the mainframe business. Mr. Chan migrated to Canada in the early 90’s and started a software company. In his return to Hong Kong in 1993, Mr. Chan founded Infrasys (HK) Ltd. with two other co-founders, with a vision to introduce computerized management for the local restaurant market.

Mr. Chan was actively involved in the pioneering of technology implementation in the local hospitality industry, especially the Chinese restaurant sector. He had also led the company’s thrust into the global POS business including mainland China, Malaysia, Singapore, Canada and even to Fiji Islands and the Maldives. The company also set up many de facto standards in the Asian POS market with the characterized features of its product.

Mr. Chan has turned Infrasys from a small IT firm to a successful local IT SME, especially during the challenging times for the IT industry. In the years to come, Mr. Chan has a new vision that he hopes to transform Infrasys into a global company. This is to be achieved by a worldwide channel distribution network and a new-generation integrated POS solution suite.
Executive Summary

Established in 1997, ITE Smartcard Solutions Limited (ITE) is one of the subsidiaries of the ITE (Holdings) Limited. The company specializes in providing smartcard and radio frequency identification (RFID) products, solutions and related services and has operations in Hong Kong and mainland China.

The smartcard and RFID solutions and services provided by ITE can be widely applied in different sectors including private estates, tertiary education, transportation and logistics. The greatest advantage of the smartcard solutions is providing fast, convenient and secured services to the users.

As one of the major clients of ITE, The Hong Kong Institute of Education has enjoyed numerous benefits of the system by applying it to the campus and dormitory. Also, by taking clients’ needs in high position of consideration, the company has successfully addressed users’ needs and minimized their dissatisfaction.

The critical success factors of ITE include excellent industry experience, profound expertise on software and hardware, strong R&D and customization capabilities as well as proven track records and satisfaction of clients.

In future, the company is going to design and develop new products and services for various markets. Meanwhile, the tertiary education sector and the Mainland market will continue to be their focal points.

“Currently, all the universities in Hong Kong and most of the universities in Macau are using our Campus Solution. Meanwhile, we have also introduced the Campus Solution in mainland China,” said Mr. Simon Yuk, Executive Director of ITE Smartcard Solutions limited.
Established in 1997, ITE Smartcard Solutions Limited (ITE) is one of the subsidiaries of the ITE (Holdings) Limited which was listed on the Growth Enterprise Market of The Stock Exchange of Hong Kong Limited in 2001.

ITE is the most fast growing smartcard and radio frequency identification (RFID) solutions provider and system integrator in Hong Kong. During its early establishment, the company mainly provided smartcard products and services to facilitate management control and automation within private estates. Later on, ITE expanded their business activities into the tertiary education, transportation and logistics sectors.

The company has been providing sophisticated solutions to an impressive list of clients within Hong Kong’s major public and private sectors, including government departments, universities, ports and terminals as well as private estates.

Currently, the company has about 50 staff in Hong Kong, with operations in Hong Kong, Macau, and Shanghai.

Key Products & Services

The smartcard and RFID products, solutions and services provided by ITE can be widely applied in different sectors. When the smartcard solution was first introduced in private estates, it was successfully integrated with different sub-systems of the building management services and security system.

Later on, the company expanded to cover the tertiary education sector and developed the All-in-one Campus Smartcard Solution (Campus Solution). The Campus Solution enables and facilitates multi-applications of using the campus smartcards for access control, library services, information network control, facilities and energy management, school affairs management and e-purse, etc.

With the great success of using smartcard and RFID technologies in campus, ITE has further applied similar technologies to develop solutions for the transportation and logistics industries. Kowloon Motor Bus Company is now using the smartlabel-based Bus Location Tracking and Fleet Management System developed by ITE, a system to facilitate bus captains to locate the assigned buses in the shortest possible time. This was the only project of this kind to be implemented in Hong Kong in 2002.

In the logistics industries, quite a number of terminals and ports in Hong Kong have already installed and incorporated the smartcard solution, namely Intelligent Truck Control System.
the truck drivers now use their own smartcard to access port and terminal services. The system has greatly enhanced the operational efficiency and smoothen the workflow of their business processes,” said Mr Simon Yuk, Executive Director of ITE

**Competitive & Excellence**

The greatest advantage of the smartcard solutions is providing fast, convenient and secured services to the users. Campus and real estate users can enjoy full range of services in their campus and dormitory by using their smartcards. By applying the smartcard and RFID technologies in transportation and logistics industries, the benefits of cost-saving and increased efficiency are easily realized.

**Awards and Quality Excellence**

- **2002** Accredited with ISO9001 2000 Quality Assurance System
- **2001** Certificate of Merit for Machinery and Equipment Design, Hong Kong Awards for Industry by the Chinese Manufacturers Association of Hong Kong
- **2000** Hong Kong Awards for Industry, Certificate of Merit in Consumer Product Design

**Track Records**

ITE designed and built a contactless smartmeter E-purse system for the student hostel of The Hong Kong Institute of Education (HKIEd) for charging of air-conditioning units of bedroom, washing machines and electric tumble dryers of laundries. The system, based on Mifare contactless smartcard technology, has 800 smartmeters installed and is the first contactless smartmeter project in Hong Kong. The MF-25SM smartmeter used in the system also won the 2000 Hong Kong Industry Awards - Certificate of Merit.

After completion of the smartmeter project, ITE continues to assist HKIEd to enhance its smartcard based campus services. Starting with a centralized smartcard issuance and management system based on the same Mifare contactless technology, the new smartcard, known as IEdSmart, was issued to teaching and administrative staff, students and other campus users. Information like user IDs, names, expiry dates, departments or faculties to which they belong is stored in the IEdSmart for personal identification and multi-applications within the campus. Over the years, more than 35,000 cards have been issued.
To further develop various physical access control application in library, laboratories, office, hostel, sport centre, swimming pool, classroom, lecture theater, car park and shuttle bus to enhance the security and resource management in the campus, ITE built up the Intelligent Room Booking and Facility Management Systems to facilitate the control and monitoring of more than 200 classrooms and lecture theaters.

With the experience of serving different clients, the company understands that meeting the users’ needs is most important. “The systems should be user-friendly. However, human behavior is beyond our control so it is very important to understand and handle how users are going to use the product during the design phase,” said Yuk. A list of major clients is shown in table 1.

With unique technical knowledge, experiences and profound expertise, the Campus Solution is the pioneer in smartcard system solutions and integration. “Currently, all the universities in Hong Kong and most of the universities in Macau are using our Campus Solution. Meanwhile, we have also been promoting the Campus Solution in mainland China,” said Yuk.

Table 1. Major client list

<table>
<thead>
<tr>
<th>Category</th>
<th>Client</th>
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<tbody>
<tr>
<td>Government Department</td>
<td>• Correctional Services Department</td>
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<td></td>
<td>• Macau Prison</td>
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<tr>
<td>Public Administration</td>
<td>• Construction Industry Training Authority</td>
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<td>• Hong Kong Airport Authority</td>
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<td></td>
<td>• Hong Kong Housing Society</td>
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<tr>
<td>University and Campus</td>
<td>• The University of Hong Kong</td>
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<td></td>
<td>• The Chinese University of Hong Kong</td>
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<td></td>
<td>• The Hong Kong University of Science and Technology</td>
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<td>• The Hong Kong Polytechnic University</td>
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<td>• Hong Kong Baptist University</td>
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<td></td>
<td>• City University of Hong Kong</td>
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<td></td>
<td>• The Hong Kong Institute of Education</td>
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<tr>
<td></td>
<td>• University of Macao</td>
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<tr>
<td></td>
<td>• Macao Tourism and Casino Career Centre</td>
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<tr>
<td>Terminal, Transportation and</td>
<td>• Asia Airfreight Terminal Co. Ltd.</td>
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<tr>
<td>Logistics</td>
<td>• MTR Corporation Ltd.</td>
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<td></td>
<td>• Kowloon-Canton Railway Corporation</td>
</tr>
<tr>
<td></td>
<td>• CSX World Terminals Asia Ltd.</td>
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<tr>
<td></td>
<td>• The Kowloon Motor Bus Co. Ltd.</td>
</tr>
<tr>
<td></td>
<td>• River Trade Terminal Co. Ltd.</td>
</tr>
</tbody>
</table>
Critical Success Factors

ITE summarizes its critical success factors as follows:

1. Excellent industry experience. ITE is the pioneering smartcard and RFID system integrator and solution provider in HK since 1998. Extensive industrial experiences and global network of technology and product partners have been built up.

2. Profound expertise on software and hardware. ITE’s development team consists of professionals from various engineering and information technology disciplines. Expert knowledge and skills have been deployed to develop the company’s own product lines of software and hardware which further contribute to the bank of intellectual properties of ITE.

3. Strong R&D and customization capability. ITE’s strong R&D capability has been built up from component level. This advantage has facilitated the overall design flexibility while maintaining easiest customization to meet the requirements of clients.

4. Proven track records and customer satisfaction. The company has never failed in any projects including those of mission critical nature. Over the years, it has won the clients' and users' satisfaction which form the solid base of its success.

Future Plans

"We are planning to design and develop new products for various markets, such as the mobile and logistics areas in the future. The tertiary education sector will continue to be one of our key focuses. Geographically, we will put more resources to develop the Mainland market," said Yuk.

Bibliography

Mr. Simon Yuk,
Executive Director of ITE Smartcard Solutions Limited

Mr. Yuk Wai Kwok, Simon, aged 38, is the Executive Director of the Company. Mr. Yuk is responsible for business development, sales and marketing of the Group. He is also in charge of the development of business co-operation arrangement with vendors and partners in Hong Kong, PRC, Macau and other overseas markets. With 12 years of experience in project management of IT industry, Mr. Yuk has been involved in the sales and tendering processes for several sizeable IT projects. He was a project manager of a computer company for 10 years before joining the Group in December 1999.
Executive Summary

Founded in 2000 and listed on the Hong Kong Growth Enterprise Market in 2003, KanHan Technologies Group Limited (KanHan) is a pioneer in web-based Asian language infrastructure for PCs, wireless PDAs, 2G and 3G mobile phones, TV set-top box and conventional telephones.

Two of KanHan’s flagship products, HanWEB Publishing Server and HanVOICE/HanPHONE Server, have brought many awards to the Group. Moreover, its innovative technology, HanWEB graphic font web-casting technology, received a grant from the HKSAR Government for patent applications in various countries. Nowadays, the technology is patented in Hong Kong and patent pending in US, mainland China, Taiwan, Japan and Korea.

KanHan has a large customer base covering government organizations and large enterprises in Hong Kong, mainland China, Taiwan and overseas countries.

Sensitive to market changes is one of KanHan’s critical success factors. To capture the growing opportunities on betting, SMS and language learning markets, the Group has recently introduced some related fee-based customer-oriented services to the public, using its leading technologies.

In future, the Group will continue to focus on customer-oriented services in order to increase revenue and sustain growth.

“KanHan was the only Hong Kong-based IT company that achieved the Top 10 ranking in the 2003 Deloitte Touche Tohmatsu’s Asia Pacific Technology Fast 500 Award. It has earned high reputation and credibility in the field,” said Mr. Lawrence Mo, CEO of KanHan Technologies Group Limited.
Company Background

Established in 2000, KanHan Technologies Group Limited (KanHan) is a pioneer in web-based Asian language infrastructure for PCs, wireless PDAs, 2G and 3G mobile phones, TV set-top box and conventional telephones. The Group targets at both private and public sectors.

Riding on the Internet boom, together with its innovative technologies, the Group was listed on the Hong Kong Growth Enterprise Market in February 2003. It was the first company under the Incubation Program of Hong Kong Science & Technology Parks to be listed.

Currently, the Group employs around 20 staff in Hong Kong and mainland China.

Key Products & Services

Two of KanHan’s flagship products are:

1. HanWEB Publishing Server. It provides end-to-end web-based applications to enterprises. These include translation between traditional and simplified Chinese web pages, web-casting of graphic characters to any Internet device, multilingual web-based messaging system, web-based Chinese, Japanese and Korean input methods, wireless and desktop browser access to non-HTML based legacy documents and voice delivery of web contents to telephones.

2. HanVOICE/HanPHONE Server. It is a highly reliable and complete voice web solution that enables customers or employees to access web information, conduct online transactions and manage personal communications with any voice enabled Internet devices, including conventional telephone. HanVOICE/HanPHONE integrates XML, HTML to XML conversion, telephony and text to speech technologies with web-based applications. It allows users to access web contents developed on HTML standard using Cantonese, Putongua and English voice user-interfaces generated in real-time by state-of-the-art text to speech technology (web-to-speech technology).

Competitive & Excellence

KanHan invests heavily on R&D. “Our company earmarks around 15% of the manpower expenses on R&D every year,” said Mo.

In addition, its technologies have been highly recognized. One of its innovative technologies, KanHan’s HanWEB graphic font web-casting technology, received a grant from the HKSAR Government for patent applications in various countries. The first patent was granted by the
HKSAR Government (Hong Kong Patent Number HK1024380) in 2001. Patent applications for HanWEB graphic font web-casting technology have also been filed in US, mainland China, Taiwan, Japan and Korea.

Leveraging on the Group's advanced and patented technology and its continuous exploration in web-based Asian language infrastructure, KanHan has won a number of important awards over the past few years:

Awards:

2003  Top 10 Winner of 2003 Deloitte Touche Tohmatsu's Asia Pacific Technology Fast 500 Award

2002  The Hong Kong Awards for Industry, the Hong Kong Science & Technology Park Certificate of Merit in Technological Achievement, 2002

2001  The Hong Kong Awards for Industry, Federation of Hong Kong Industries Consumer Product Design Award, 2002

2001  The Hong Kong Awards for Industry, the Hong Kong Science & Technology Park Technological Achievement Award, 2001

2001  Hong Kong IT Excellence Awards - Product Silver Award

"KanHan was the only Hong Kong-based IT company that achieved the Top 10 ranking in the 2003 Deloitte Touche Tohmatsu's Asia Pacific Technology Fast 500 Award. It has earned high reputation and credibility in the field," said Mr. Lawrence Mo, CEO of KanHan.

Track Records

In 2003, KanHan entered agreements with 21CN, the largest Internet portal in Southern China and TenCent, the largest mobile messaging service provider in mainland China. The two companies utilize the web-to-speech technology of KanHan and its do-it-yourself (DIY) platform to launch the brand new "Real-time Voice Message" and "DIY Ring-tone" services for mobile communication market in mainland China.

"Real-time Voice Message and DIY Ring-tone services are the world's first DIY ring-tone download services," Mo mentioned. "With the increasing popularity of mobile phones in the Mainland, we are confident that the new business will help to raise our Group's exposure in the Mainland and boost our Group's revenue in 2004."
Moreover, the HKSAR Government, the HSBC Group, the Beijing City Government and the Ministry of Foreign Affairs in Taiwan are all adopting KanHan’s HanWEB Publishing Server to provide real-time simplified traditional Chinese translations to facilitate interactive business transactions and communications across the boarder.

Most KanHan’s customers come from government departments and semi-government organizations, social welfare institutions, corporate and business portals and large commercial firms in Hong Kong, mainland China, Taiwan and overseas countries (see table 1).

<table>
<thead>
<tr>
<th><strong>Table 1. Major client list</strong></th>
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<tbody>
<tr>
<td><strong>Hong Kong</strong></td>
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<td>HKSAR Government</td>
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<td>HSBC Group</td>
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<td>Hang Seng Bank</td>
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<td>Hong Kong Airport Authority</td>
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<td>Radio Television Hong Kong</td>
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<td>ESDlife</td>
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<td>Hong Kong Society for the Blind</td>
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<td>Hong Kong Trade Development Council</td>
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<td>Beijing City Government</td>
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<td>China Expert Net</td>
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<td><strong>Taiwan</strong></td>
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<td>Ministry of Foreign Affairs</td>
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<td>Government Information Office</td>
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<td>Ricci Academic Database</td>
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<td>Formosa Plastics Group</td>
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<td><strong>Overseas</strong></td>
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<td>Chinese.com (US)</td>
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<td>Overseas Chinese Website Alliance (Australia)</td>
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</table>
**Critical Success Factors**

"Sensitive to market changes is one of the keys to our success," said Mo. "We have to know the market climate and provide distinctive products to our customers."

To capture the growing opportunities on betting, SMS and language learning markets, KanHan has initiated the following customer-oriented services with two-fold objectives (1) showing the customers that KanHan has the ability to build up highly complicated portals and (2) leading customers to new direction of its technology deployment:

- **FBwin football paid phone service.** By utilizing the Group's web-to-speech technology, FBwin phone provides a 24-hour real-time football information channel, transmitting the information via fixed-line or mobile phones in either Putonghua or Cantonese.

- **Real-time Voice Message and DIY Ring-tone services.** The Group partners with 21CN to launch the services. Users can send favourite song, music and voice to designated mobile phones.

- **Putonghua training to the public.** The Group works with ESDlife to provide the training platform which offers not only formal Putonghua training but also real-time news articles, speeches and Cantonese-Putonghua conversations.

**Future Plans**

To increase revenue and sustain growth, KanHan will continue to focus on customer-oriented services so that the Group can build on the web-to-speech platform to develop fee-based information services and payment gateway for fixed-line and mobile phone users.
Biography

Mr. Lawrence Mo,
CEO of KanHan Technologies Group Limited

Prior to founding KanHan Technologies Group Limited, Mr. Mo was Managing Director of the Hong Kong branch of Taiwan's largest software technology company, DynaLab Inc. which was engaged in the development and sales of solutions on local language computing for Chinese, Japanese, Korean and for electronic and Internet publishing. He is an appointed member of the HKSAR Government's Chinese Language Interface Advisory Committee.

During this nine-year tenure in DynaLab, he was responsible for the strategic planning and new business development of the 200 people organization with subsidiaries in Japan, Hong Kong and mainland China. DynaLab acquired CompuFont in 1991, the first company founded by Lawrence in 1989 which developed a Chinese font technology licensed by Microsoft for its first Windows 3.0 product for the Chinese market.

Prior to 1989, he worked six years in Digital Equipment Corporation's Hong Kong operation in various sales and sales management position with the last job as the Large Project Manager for Hong Kong. He won three times the Decathlon award for being the world's top ten percent salesperson and had never missed sales goals during the six years in Digital Equipment Corporation.

And before that, he was an application programmer in a local software house for 18 months since he return to Hong Kong from University of Toronto, Canada with a degree in Computer Science in 1982.
Executive Summary

Magically Asia Limited (Magically) established its offices in Hong Kong and US in 1998. Its core business is to provide communication and collaboration technologies with focus on personal communication and collaboration components. It has a number of systems tailor-made for the telecommunications industry and SMEs, including MagicalDesk, Magical Workspace and Magical SyncServer.

Being a pioneer in the market, Magically enjoys a first-mover advantage of developing new technologies without keen competition. Also, the company is technically mature after years of R&D and has domain knowledge on developing mobile applications and expertise on email and synchronization systems.

CSL, one of the major clients of Magically, has adopted the SyncServer system and is the first company in the world to launch value-added synchronization service through the system. The system allows users to synchronize different types of information such as address book and calendar to the server by using their mobile phones and such information can then be viewed via the Internet.

The success of Magically is attributed to its vision on new technology and strong technical team. In future, the company will enhance the functionality of the SyncServer system and further expand its business to Singapore, Taiwan and mainland China.

“Our greatest success is that even though we are a local company, our technology has gained worldwide recognition and won international awards,” said Mr. Andrew Choi, Chief Operating Officer of Magically Asia Limited. “Despite our limited resources, we have beaten large multinational companies in bidding a project on developing collaboration tools for document management. This reflects the competitive edges of our systems which are highly recognized by the industry.”
Riding on the Internet boom in 1998, Magically Asia Limited (Magically) established its offices in Hong Kong and US at the same time. Its core business is to provide communication and collaboration technologies with focus on personal communication and collaboration components. Magically’s solutions designed for the mobile workforce and virtual communities are universally accessible through multiple platforms in any language and from any Internet-enabled device.

The company’s vision states that “Everyone should have just one - One address book, one calendar, one unified message center and one file repository. Anywhere you go you can access your personal information with any Internet-enabled device. In order to achieve this vision, the company has developed a number of solutions including its flagship product MagicalDesk, an award-winning suite of information management tool for corporate and SME users.

Based in Redwood City, California, Magically is a privately owned and operated company with worldwide presence in Hong Kong and UK.

**Key Products & Services**

Magically has a number of systems tailor-made for the telecommunications industry and SMEs, especially those with operations in more than one location. The systems include:

1. **MagicalDesk** - A suite of integrated Internet-based applications including email services, calendar, task lists, Internet bookmarks, file storage, document viewing and file synchronization

2. **Magical Workspace** - A virtual workplace that enables people in different offices, companies and even time zones to communicate and work together directly, swiftly and systematically on one business project

3. **Magical SyncServer** - It enables worldwide telecommunications operators to provide value-adding synchronization services to their subscribers such as a permanently backed-up address book and an updated calendar on their mobile handsets. The system has recently passed the SyncML Compliance & Interoperability Test held by the SyncML Initiative Ltd. SyncML is the leading open industry standard for universal synchronization of remote data and personal information across multiple networks, platforms and devices.
Competitive Edges & Excellence

Being a pioneer in the market, Magically enjoys a first-mover advantage of developing new technologies without keen competition. "Only a few companies in the world are developing systems similar to ours," said Mr. Andrew Choi, Chief Operating Officer of Magically. Also, the company’s technology can catch up with the latest market trend, for example, its systems already support 3G even though such technology is just launched in Hong Kong.

Moreover, the company is technically mature after years of R&D. "We have solved lots of problems during our early development period. Now we have arrived at a complete solution and have developed a full package for our clients," said Choi. In addition, the company’s solutions can be fully customized to address the needs of different users.

Magically has domain knowledge on developing mobile applications and expertise on email and synchronization systems. The company has experience in developing large ISP solutions such as the system for Netvigator to provide free web mail service to its large volume of subscribers.

To recognize the achievement of Magically, the company won the Silver Award of the Cellmania WAPPY Award in 2001, an international competition to recognize the best of mobile Internet. It was also selected as the Forbes Interactive Money Guide’s Best of the Web in 2000 and 101 Best Business Sites in 1999.

Track Records

CSL, one of the major clients of Magically, has adopted the SyncServer system and is the first company in the world to launch value-added synchronization service through the system. The system allows users to synchronize different types of information such as address book and calendar to the server by using their mobile phones and such information can then be viewed via the Internet. Also, all traffic through the network is encrypted to ensure high security of the transmission.

With the new service, even the user loses his mobile phone and all the contact information saved in it, the system can synchronize all the information to the user’s new mobile phone within a very short period.

"There were lots of problems when we designed the system initially since different mobile phone models had their own settings and we needed to ensure our system was compatible with all models. We discussed with the mobile phone manufacturers and fine-tuned the systems.” Choi said. "The new synchronization service of CSL was just available to the public in April 2004," he added.
Magically has lots of reputable clients and partners including PCCW Netvigator, PCCW Yellow Page, CSL, Financial Times, CPCNet, Li & Fung Retail, JOS, TDCTrade, SchoolTeam and Institute for Tourism Studies in Macau.

Critical Factors

The success of Magically is attributed to its vision on new technology and strong technical team. The company has capitalized on the emerging market opportunities and takes the lead in developing new technologies. Moreover, some of its technical team members have more than 10 years of experience which had facilitated the development of innovative and advanced systems.

“Our greatest success is that even though we are a local company, our technology has gained worldwide recognition and won international awards,” said Choi. “Despite our limited resources, we have beaten large multinational companies in bidding a project on developing collaboration tools for document management. This reflects the competitive edges of our systems which are highly recognized by the industry.”

Future Plans

Magically will further enhance the functionality of the SyncServer system with larger data size and faster transmission speed. Currently, the system is mainly transmitting text-based materials and in near future, synchronization of datafiles, photos, phone profiles and settings will also be available.

Geographically, the company will further expand its business to Singapore, Taiwan and mainland China.
Mr. Andrew Choi,  
Chief Operating Officer of Magically Asia Limited

Mr. Andrew Choi is the Chief Operating Officer of Magically Asia Limited. He is responsible for the operations in the company and also responsible for the product development and deployment team. Prior to being the Chief Operation Officer for Magically in Hong Kong, Mr. Choi was the Production Manager for Magically, Inc. He worked in the Silicon Valley (US) office and led the product development team and also managed several major ASP clients' projects. Before joining Magically, Mr. Choi was the Production Director of Sina.com (Hong Kong) Ltd., one of the largest portal sites in the Greater China market. He led the production team on the development and operations of the Sina.com.hk web site. Prior to Sina.com, he also worked at Chinese Books CyberStore (博學堂) from 1997-1999, as one of the founding members of the largest on-line Chinese Bookstore. He was involved in the planning of the architecture of the site and helped to launch the Chinesebooks.com site. Mr. Choi was also a Project Manager with Sino United Electronic Publishing, during which he developed many multimedia CD-ROM titles.

Mr. Choi holds a Bachelor's Degree in Science from University of Manitoba, Canada and a Master's Degree in Communications from Regent University, US.
Executive Summary


The company has developed the Digital Facial Expression System which is capable of animating facial expression or emotion for digital actors of film, video and multimedia. It has the advantages of high consistency, efficiency and flexibility.

Menfond is the only animation studio in Asia/Pacific that has ever produced 3D computer-generated imagery (CGI) movie with digital actors which can perform emotions. Also, with its superior animation creativity, skills and know-hows, the company has participated in various worldwide computer graphics exhibitions, won lots of local and international awards and built up its reputable clientele.

Leveraging on its long reputable track records, superior know-hows, experienced leadership and well-recognized brand name, Menfond has successfully established its foothold in the local and overseas markets. In future, the company would like to develop its IP-owned productions and further expand key overseas markets focusing on movie-related businesses.

“We have developed the Digital Facial Expression System for production of the movie ‘Master Q 2001’. The system was granted the Gold Application in the Hong Kong IT Excellence Award and the movie was the only full featured movie with co-performance of live actors and digital characters ever produced in Asia,” said Mr. Victor Wong, Director of Menfond Electronic Art & Computer Design Company Limited.
Company Background

Established in 1990, Menfond Electronic Art & Computer Design Company Limited (Menfond) started with only one Macintosh and four young men. The company’s core business is to produce 3D animation contents for films, advertisements and games. Its mission is to produce the best quality and most cost competitive 3D animation contents for film and other visual media industry users.

Since 1991, Menfond has produced hundreds of 3D animations for TV commercials and movies including some “TVC classics” like “Sunray Wall Coverings”, “Vita Honey Bee”, “Piggy Ham”, “Shell - Formula 1 Convertible”, “Spicy CupNoddle”, “Ekin Whampo Fantasy”, “City of Fire”, “Master Q 2001”, “The Purple Storm”, “So Close”, “Blue Blood Man”, “Twins Effect” and so on. Most of these animations have been honoured locally or internationally.

Menfond began to explore Japan’s digital animation market in 1996. It teamed up with one of the top international producers in Japan to produce top-quality digital animation for TV commercials and electronic games. It produced several animation sequences for the game “Parasite Eve” and “Final Fantasy, episodes VIII, IX & X” which were created by Square Soft, one of the biggest game companies in Japan.

Currently, Menfond employs about 50 staff in Hong Kong, with sales network covering Japan, US and France as well as strategic partnership in the Mainland.

Key Products & Services

Digital Facial Expression System, a key proprietary application of Menfond, is developed with the Maya Animation Software Development Tool Kit and Microsoft C++ Development Tool Kit. It is capable of animating facial expression or emotion for Computer-Generated Characters (Digital Actors) of film, video and multimedia.

"We use animation packages to develop animations. However, each package has its limitations which cannot fully fulfill the needs of our production. Therefore, we utilize the existing tools to develop our own applications," said Mr. Victor Wong, Director of Menfond.

With the system, users can create various facial expressions (extreme facial shapes) of a digital actor and store them in a facial library for single or multiple user archives.
The facial models developed by the Digital Facial Expression System are stored in a library and so even different users are animating the same character model simultaneously, the acting of the character will still be consistent.

In addition, the whole facial expression set and the digital actors' animation will be updated automatically whenever there is any change of extreme facial shapes in the facial library. It enables real flexibility and high performance for users to modify the emotion acting anytime even most of the animation work has been completed.

There are only four animation studios in the world which have ever produced 3D computer-generated movie with digital actors who can perform emotion acting. Menfond is the only one in the Asia/Pacific region while the others are worldwide well-known animation giants including Disney Pixar, DreamWorks and Square Soft.

"We have developed the Digital Facial Expression System for production of the movie 'Master Q 2001'. The system was granted the Gold Application in the Hong Kong IT Excellence Award and the movie was the only full featured movie with co-performance of live actors and digital characters ever produced in Asia," said Wong.

With the superior animation creativity, skills and know-hows, Menfond has been awarded entries and honors in various worldwide computer graphics exhibitions and industry award presentations. The company is the first digital production studio in South East Asia awarded to exhibit computer animation in SIGGRAPH, the largest computer graphics exhibition in the world and IMAGINA, the largest computer graphics exhibition in Europe. A list of major awards is shown on the next page.
Awards:

2004
The 2nd Hong Kong Digital Entertainment Excellence Award, The Best Computer Animation Short Film and The Best Digital Effects Award
29th Hong Kong Film Awards, Best Visual Effects

2003
The 1st Hong Kong Digital Entertainment Excellence Award, Gold and Silver Awards
Taipei Golden Horse Film Festival, Gold in Visual Effects

2002
Asia Advertising Award, Gold Award

2001
Hong Kong IT Excellence Awards, Application Gold Award

1999
Hong Kong IT Excellence Awards, Application Bronze Award

1997
The New York Festivals, Gold Award
Japan International Advertising Award, Grand Prize

1994
HOW Magazine, 1st International Design Award

1993
Mdn International Design Award, Grand Prize & Best SGI 3D Innovation

TrackRecords

Menfond has produced various well-known and award-winning 3D animated movies, video games, movie special effects, TV commercials, multimedia effects and MTVs. It has lots of worldwide clients in Hong Kong, mainland China, Taiwan, Japan, Europe and US. Table 1 lists some of its reputable clients.

Table 1. Major client list

<table>
<thead>
<tr>
<th>Production</th>
<th>Client</th>
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<tbody>
<tr>
<td>3D Animated Movie</td>
<td>China Star</td>
</tr>
<tr>
<td>Video Game</td>
<td>Square Soft, Enix, Sony Computer Entertainment America, UBI Soft Inc.</td>
</tr>
<tr>
<td>Movie Special Effects</td>
<td>Sony Columbia Tristar, Golden Harvest, China Star, Media Asia, Stareast BOB, EMG, JCG</td>
</tr>
<tr>
<td>TV Commercial</td>
<td>Dentsu, J., Walter Thomson, BBDO, Ogily &amp; Mather</td>
</tr>
<tr>
<td>Advertising/Multimedia</td>
<td>Nokia (China), Motorola (China), British Tobacco Company, Johnson &amp; Johnson, Colgate, Cathay Pacific</td>
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<tr>
<td>MTV</td>
<td>Sony Music, BMG, EMI</td>
</tr>
</tbody>
</table>
Critical Success Factors

Levenging on its long reputable track records, superior know-hows, experienced leadership and well-recognized brand name, Menfond has successfully established its foothold in the local and overseas markets. The company has built great wealth of valuable expertise in digital entertainment creation and production. We belong to the first generation in the field of CGI production and we have already come across many challenges. Such experience gives us leading edges and enables us to run our operation smoothly, Wong expressed.

Menfond catches the technology trends in the market and develops innovative and advanced systems to enhance its productions. We won’t follow others’ way in production even though we know how they do it. We develop our own applications and plug-in so as to differentiate ourselves from others, he said.

The company has expertise on modeling, motion texture, lighting, rendering, and compositing. It employs the best quality staff who specialize in their most talented areas so as to ensure the best quality production.

Moreover, Menfond is led by experienced management and advisory board and values its staff as very important assets to the company. It provides both overseas and local training to their staff and adopt an open door policy that encourages them to express their opinions, champion ideas and stretch the limits of possibility. Machines will be outdated while culture will not. We highly value the working culture and human assets of our company, he continued.

With the long history of establishment, the company has developed its own brand and unique style in the market. More importantly, it has very good word-of-mouth for its reputation, brand name, rich portfolio credits, and on-time delivery. This is particularly important for a movie maker to cooperate with a reliable partner as entertainment is a risk-taking industry.

Future Plans

The company would like to develop its IP-owned productions like Disney Pixar. Meanwhile, it is going to further expand the US market focusing on movies related productions. Hong Kong has the selling points of high efficiency and cost effectiveness as compared to other cities. These competitive edges enable us to further develop the foreign markets in future, said Wong.
Mr. Victor Wong,  
Director of Menfond Electronic Art & Computer Design Company Limited

Mr. Victor Wong graduated from the University of Washington in US in 1989, majored in Computer Science and Electrical Engineering. He is keen on visual art. To pursue his dream work, he established the Menfond Electronic Art & Computer Design Company Limited in 1990 together with his brother Mr. Eddy Wong.

The combination of technology and art of Asian skills and western culture has successfully established Menfond to become a premier digital visual effects and 3D animation production studio integrating state of the art graphics with virtual reality technologies.

Mr. Wong has more than 10 years experience in computer design and is equipped with excellent management skills. In the past decade, he participated in hundreds of commercials in the creation of special effects and got a lot of recognitions in advertisement and computer animation including Hong Kong, US and Japan. The production of “AC WaterMan” had won 1997 Japan International Advertising Award Grand Prize and 1997 The New York Festivals, Gold Award; and “Lucozade Core - Hero” won the 2001 Asia Advertising Award, Gold Award etc. There are three studios running under Menfond, which was designed by Mr. Wong himself to best fit for the creation and production requirement.

In addition, Mr. Wong directed many international TV commercials and Hong Kong music video. Recently, he had been appointed as special effect director in more than 30 movies production.
Executive Summary

Established in 1994 by Hong Kong’s five major transport operators, Octopus Cards Limited (Octopus) is the provider of the world’s leading complex automatic fare collection and contactless smartcard payment system. Since the successful implementation of the Octopus smartcard in 1997, the application of such technology has attracted extensive media and business interests from around the world. The company is the honoured recipient of ten awards, including accolades such as Asian Innovation Awards 1998 and Enterprise Award in DHL/SCMP Hong Kong Business Awards 2003.

Octopus is also a multiple number one world record-breaker, as the world’s first smartcard system for public transportation, the most widely accepted commercial smartcard and the most frequently-used smartcard system. Today, over 250 service providers including public transport operators, car parking operators, retail shops, recreational facilities and school campuses have joined the Octopus System.

Moreover, Octopus conducts workshops which are designed for participants to gain first-hand experience of this successful system, from concept, operation to subsequent expansion.

The company is also currently expanding its business abroad, sharing Octopus’ successful implementation experience with overseas countries. The company’s new international project is to set-up a transport smartcard system in the Netherlands, the first national-scale system in the world.

“The on-going innovations of Octopus are uniquely achieved in Hong Kong. The system undergoes eight million transactions every day, a figure which surpasses that of HSBC, Hong Kong’s largest bank,” said Mr. Eric Tai, CEO of Octopus Card Limited.
Octopus Cards Limited (Octopus) was established in 1994 by the MTR Corporation Limited (MTR), Kowloon-Canton Railway Corporation, The Kowloon Motor Bus Holdings Limited, Citybus Limited and Hong Kong Ferry (Holdings) Company Limited, five of Hong Kong's major transport operators.

Back in 1993, MTR took the lead in reviewing its fare collection technology, devising a development strategy for the up-coming decade. After active research, contactless smartcard technology was recognized as the most appropriate system platform for the future. The five transport operators subsequently established a joint venture to oversee the smartcard system's development and implementation. The Octopus System was finally launched in September 1997.

The Octopus System is used daily by over six million citizens in Hong Kong across transport, parking, retail, self-service businesses, recreational facilities, educational institutions and access control.

As a full-service electronic payment system operator and smartcard issuer, Octopus is in a unique position to export its experience, system and proven approach to "making life easier" for people in many countries around the world.

Based in Hong Kong, the company's offices are located in the North Point district, with the operations of a Card Centre for card issuing and a Central Clearing House for payment settlement in Kowloon Bay. Currently, the company has over 150 staff, including two consultants stationed in UK for overseas projects.

Key Products & Services

Octopus offers users an easy and hassle-free way to travel, shop and dine in Hong Kong. Each Octopus card encompasses a built-in microchip which contains an electronic purse and other useful applications. Users simply wave their Octopus cards over a reader, which will automatically deduct the correct fare or spending. There are no longer a need for coins.

"The market response to the system was overwhelming from the start," said Mr. Eric Tai, CEO of Octopus, "Three million cards were sold within three months since its launch. Today, the Octopus card has become a necessity for everyone in Hong Kong, the contactless smartcard system makes our lives easier!"

Octopus's consultancy services offer potential parties a high level of practical experience and technology know-how, coupling with reliable, high quality support in implementing a similar smartcard system, from feasibility study to project completion and operation.
The Octopus System represents a major breakthrough in smartcard payment technology. Since its launch, the system has undergone many enhancements. One of its major achievements is the integration of its Central Clearing System with the systems of a wide variety of organizations and merchants offering Octopus card usage.

The success of the system has captured enormous attention over the past few years, where it is reflected in awards such as:

Awards:

2003
- 2003 Hong Kong Top Ten Brandnames Award by The Chinese Manufacturers' Association of Hong Kong
- Enterprise Award in DHL/SCMP Hong Kong Business Awards 2003 by DHL and South China Morning Post
- Best Practice Awards 2003 in Simplicity by Best Practice Management
- Superbrands Hong Kong & Brand Leader Award - Business Equipment & Services by Superbrands

2000
- Most Ingenious Service Award 2000 by Next Magazine
- Ranked 7th in "The Election of 10 Engineering Wonders in Hong Kong" by The Hong Kong Institute of Engineers & The Leisure and Cultural Services Department
- Ten Outstanding issues of the Visually Impaired by Hong Kong Blind Union

1999
- The 1st UITP Secretariat General Award for Innovation in Public Transport by the UITP's Secretary General

1998
- 1998 Hong Kong Awards for Service: Innovation by The Hong Kong Coalition of Service Industries
- Asian Innovation Awards 1998 by Far Eastern Economic Review
Since its launch in 1997, the Octopus brand has gone from strength to strength, proving an unequivocal success. Its achievements include:

- The world’s first smartcard system for public transportation
- The world’s most widely accepted commercial smartcard system - ten million cards in circulation, with seven million active cards
- The world’s most heavily used smartcard system - eight million transactions a day, valued at over HK$55 million
- 20 financial institutions providing Octopus Automatic Add-Value Service to customers
- About 270 service providers including public transport, parking companies, retail shops, recreational facilities and school campuses
- Over 25,000 Octopus devices located throughout Hong Kong

"Octopus is Hong Kong’s pride," said Tai.

"Even before the initial launch of the Octopus system, we were approached by parties round the world requesting experience sharing and site visits. While a few major cities, including New York and London, have introduced travel smartcards, so far, they have not been able to reach the scale and reliability that Octopus is able to offer," Tai added. "The on-going innovations of Octopus are uniquely achieved in Hong Kong. The system undergoes eight million transactions every day, a figure which surpasses that of HSBC, Hong Kong’s largest bank."

**Critical Success Factors**

The leading role and expertise of Octopus in the development, implementation and operation of the smartcard project attribute to the success of its smartcard system.

Tai pointed out that the introduction of a smartcard system for public transportation is an extremely complicated process, as the business rules of the various transport operators differ from one to another. For example, there are a multitude of fares for passenger types with a variety of public transportation modes, and different charges for varying time periods. Additionally, a reliable and efficient system for collecting and allocating the revenues to scheme members is absolutely crucial to its workings.
"The unique experience and expertise we gained from the implementation of the Octopus System and the Central Clearing System help us to provide consultation services in the set-up and operation of similar schemes overseas," said Tai.

**Future Plans**

Octopus is currently developing its businesses abroad, sharing the expertise and skills of the company's electronic smartcard with other overseas countries. Recently the company has made its first foray into the international market by partnering with MTR on a contract with Thales, a member of the East-West Consortium. The deal involves the provision of a Central Clearing System software and the implementation of a new e-ticketing public transport system in the Netherlands. The system will be the first in the world to be implemented and undertaken on a national scale, and will offer integrated travel covering all modes of public transport including train, bus, tram, metro and ferry.

"The Netherlands marks our first international step. We look forward to developing our business in the European market," said Tai. "Octopus is an excellent example of the entrepreneurship and creativity in Hong Kong. I would like to see many more Hong Kong companies following Octopus' footprint and gaining international recognition for their endeavours."

**Biography**

Mr. Eric Tai,  
CEO of Octopus Cards Limited

In 1973, Mr. Eric Tai started his career in insurance with the Commercial Union Assurance Group in Australia. He then joined Chase AMP Bank to launch its credit bank business and various consumer products. In 1989, he moved to the Australia and New Zealand Bank (ANZ) in the position of Chief Manager in Marketing to realign the consumer bank to meet a high growth strategy.

After some 25 years overseas, he returned to Hong Kong in 1993, where he joined HSBC as a Senior Executive in Retail Marketing & Planning. He was later promoted to Head of Personal Banking Development, Asia Pacific in 1997, and played a significant role in HSBC's entry into mobile phone banking and internet banking. He left the company in 2001, when he was Head of Strategic Alliances and e-Business Asia Pacific, and joined Octopus Cards Limited as its Chief Executive Officer.
Executive Summary

Established and incorporated in 1998, Outblaze Limited (Outblaze) focuses on the provision and operation of email solutions and related revenue-generating services. Its mission is the development and maintenance of large-scale messaging architecture for clients, including services designed to reduce the problem of spam. The company has about 100 employees in Hong Kong, Shanghai, South Korea, India, the Philippines and the US.

The company's key solutions include Outblaze Messaging Services (e.g. email, address book), Sentry (Anti-Spam and Anti-Virus for large messaging systems), Community Tools (e.g. message boards, payment gateway) and Wireless Worldwide (email integration for mobile phones and SMS). Their solutions are fully customizable, multilingual, and comprehensive. In 2003, the company won a number of awards for its achievements in the field of email, including the Asia Pacific Information and Communication Technology Award (Best Communications Application), the Enterprise Grand Award at the Linux Business Adoption Award and the Product Gold Award at the IT Excellence Awards in Hong Kong.

One of the main strengths of Outblaze is its well-designed and established infrastructure based on open source platforms. The company will continue to build on its strengths and capabilities by expanding and upgrading its various services, including further development of its anti-virus and anti-spam technology.

Outblaze's major clients include Mail.com, PCCW, Opera, Greenpeace, Look.com, IGN, Extreme Sports Network, Ireland.com and Sanno. Roughly 60% of the company's revenues come from US-based clients.

"We are currently one of the top ten email operators in the world, powering over 30 million worldwide email accounts and managing traffic of over 100 million emails daily. Our clients consist largely of companies based overseas, mainly the US and Europe, with Hong Kong accounting for a relatively small part of our client base," said Mr. Yat Siu, CEO of Outblaze Limited.
Outblaze Limited (Outblaze) was established and incorporated in 1998 in Hong Kong, with a primary focus on operation of email solutions and related services. Its mission is the development and maintenance of large-scale messaging architecture for clients, including services designed to reduce the problem of spam.

In 1998, Outblaze pioneered the development and provision of multilingual Internet community solutions (such as email and message boards) suitable for any organizations that wished to offer their own private label web technologies and services without the hassle and cost of developing or purchasing expensive platforms. These "portal solutions" turned static websites into dynamic portals through the turnkey addition of specific applications powered by Outblaze. Moreover, these solutions were fully customizable, multilingual and raised the industry standard for truly international web technology as they could work in any language environment.

Today, Outblaze continues to develop and manage innovative Internet communication and collaboration services and platforms. It provides enabling solutions to traditional businesses (such as banks, retailers, telecom providers, TV/radio broadcasters, publishers, government agencies and non-profit organizations) as well as digital entities (such as media companies, content websites and e-commerce websites) from all over the world.

Key Products & Services

The key solutions of Outblaze include:

1. **Outblaze Messaging Services** - offer clients a simple and affordable way to provide and manage complex email services with an emphasis on reliability and security, and with the ability to serve several million end-users if necessary. When clients outsource their email needs to Outblaze, the service is deployed, operated, maintained, upgraded, backed up, protected and connected by Outblaze, but owned, customized and controlled by the client via an intuitive and flexible control interface called the Outblaze Management Console.

   The Outblaze Management Console is a versatile administration system that allows an administrator total control over Outblaze services. Clients can thus manage millions of accounts at a time and set up sub-sites simply by pointing and clicking on the convenient web-based interface. Additionally, they can obtain usage reports based on their users' activities, customize the look of the site and change the language template of the Outblaze services.
2. **Outblaze Sentry** - the company's anti-spam and anti-virus offering. Virus protection is provided by the award-winning Vexira engine (Vexira is a member of the Association of Anti-Virus Asia Researchers, European Institute for Computer Anti-Virus Research and Anti-Virus Developers Consortia and it has been involved in security services since 1990). Spam protection is achieved by an extensive set of block rules or "spam filters" that are continuously monitored and updated by a dedicated team of anti-spam specialists. The Outblaze Sentry routinely stops about 96-98% of incoming spam on a large network, which means lower traffic costs for the client and less hassle for the client's users. The rates of "false positives" (legitimate mail mistakenly identified as spam by the system) are low enough to fall well within acceptable limits. Outblaze staff use proprietary methodology to analyze spam data, detect and terminate in-network spam abuse and inform external email service providers of any open relays or proxies identified (open relays/proxies are frequently abused by spammers to send junk mail).

3. **Outblaze Community Tools** - a set of several integrated services designed to work together or individually to increase usage, revenue generation and site visits. Among them are a Payment Gateway (to process credit card transactions online and thus enable e-commerce), a fully functional Calendar, Message Boards, Greeting Cards, Mailing Lists, etc.

4. **Outblaze Wireless Worldwide** - includes Outblaze Global SMS which involves two-way email-SMS integration and conversion. Users of this service may send SMS text messages directly from their email interface, receive emails via SMS on mobile phones and receive SMS messages via email.

**Competitive Edges & Excellence**

Outblaze possesses extensive knowledge regarding the creation, management and maintenance of large-scale messaging architecture (see its track records on page 91). Furthermore, since the company handles large volumes of traffic every day, expertise in tackling the spam problem has proved essential. In 2001, Outblaze management determined that the spam problem would require increasing resources and man-hours to address, and thus decided to employ a renowned anti-spam specialist, Mr. Suresh Ramasubramanian, to head the Security & Antispam Operations division of the company. Ramasubramanian has dramatically reduced the junk mail that finds its way into Outblaze networks and built up a reputation of Outblaze as a conscientious email operator and firm opponent of unsolicited commercial email.

The messaging services provided by Outblaze are comprehensive. They not only cover all the popular and established functions but also offer other unique features tailor-made for clients, such as a self-customized anti-spam application or a SMS platform with global coverage and
capability of communicating with the email system. Some of the standard features available include address book, bookmark, calendar, chat, file sharing, file upload, greeting cards, web hosting, instant messenger, friend matching, forums, photo album and polling. They all represent important services for commercial efforts that rely on a community of Internet users (or customers).

In addition to being robust and highly scalable, the messaging services are flexible and can be customized to address users' needs. They also allow various degrees of self-customization on the part of users, depending on which type of service used.

Outblaze makes extensive use of open source platforms and technologies, thus lowering costs of acquisition for itself and its clients while drawing upon the expertise of thousands of other open source developers around the world.

The comprehensive features and competitive advantages of Outblaze services are well regarded by users and clients in Asia, Europe and North America. The company's products and services have won a number of awards, including the prestigious Asia Pacific Information and Communication Technology Award (APICTA), the Enterprise Grand Award at the Linux Business Adoption Award and the Product Gold Award at the IT Excellence Awards.

"We are currently one of the top ten email operators in the world, powering over 30 million worldwide email accounts and managing traffic of over 100 million emails daily. Our clients consist largely of companies based overseas, mainly the US and Europe, with Hong Kong accounting for a relatively small part of our client base," said Mr. Yat Siu, CEO of Outblaze.

Track Records

Mail.com is a major US operator that provides free as well as paid email services to millions of users. In 2000, Mail.com was looking for a cost-saving solution to improve its service quality and decrease costs. Outblaze was selected as the solution provider for deploying a new system for Mail.com to migrate the entire user base of over 4 million users to the new system. Additionally, Outblaze assisted the client in reducing costs by more than 80%.

Outblaze's services add value to existing businesses through higher value customer acquisition and retention, increased online efficiency, high-quality web-based communications systems and revenue-generating opportunities. Consequently, the company is able to build up a diverse, global client base (see table 1).
Table 1. Major client list

<table>
<thead>
<tr>
<th>Business Nature</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT&amp;T Services Providers</td>
<td>Mail.com, PCCW, Opera Mail, Look.com</td>
</tr>
<tr>
<td>Regional and Community Portals</td>
<td>Japan.com, Colombia.com, Asians.com, Mexico.com, Buffalo.com, Sutton City, IndialInfo.com, AsiaMail.com, Malaysia.com</td>
</tr>
<tr>
<td>Specialty and Interest Groups</td>
<td>Greenpeace, Univision, Beer.com, GoMotorSport.com</td>
</tr>
<tr>
<td>Other sectors</td>
<td>Louisiana State University, Barunson</td>
</tr>
</tbody>
</table>

Critical Success Factors

Siu has attributed the success of his company to two major factors: people and infrastructure.

Outblaze employs international experts to facilitate global operations. "Our staff come from different countries so they can bring different experience and expertise to serve our worldwide clients," said Siu. "Also, the relatively lower labour cost in Hong Kong as compared to US is an advantage for us to develop products for foreign markets," he continued.

Hong Kong's good technical and financial infrastructures, including well-established modern telecommunications network and tax system, are also critical for the company to develop its business, attract foreign investment and provide services outside Hong Kong.

Future Plans

The company will continue to build on its strengths and capabilities by expanding and upgrading its various services, including further development of its anti-virus and anti-spam solutions.
Mr. Yat Siu, Founder and CEO of Outblaze Limited

Mr. Yat Siu is the Founder and CEO of Outblaze, the first company to tap the market demand for community-oriented Internet messaging services.

Mr. Siu began his career in the technology sector working for Atari Germany in 1990. Three years later he served as a Director and Head of East Coast Operations in Boston for Lexicor, a professional graphics software company based in Silicon Valley.

In 1996, Mr. Siu moved to Hong Kong and established Hong Kong Cybercity (later renamed Freenation), the first free web page and e-mail provider in Asia. Under his leadership, Cybercity/Freenation grew rapidly and was acquired by an US-based company. Mr. Siu joined AT&T Solutions’ System Integration practice in 1997 and left a year later to set up Outblaze, which today provides messaging services to over 30 million people around the world.

Mr. Siu holds a degree in music from the Musik Konservatorium Wien and is a Global Leader of Tomorrow regularly invited to the World Economic Forum. In addition to Outblaze he also serves as Executive Director for Barunson, the KOSDAQ-listed leading stationery company in Korea. Mr. Siu has been awarded for his past contributions in business and society a number of times, collecting the Standard Chartered Platinum Achievers Award and the URENCO Innovation Award.
Executive Summary

SoftEnable Technology Limited (SoftEnable) is an associated company formed in 2000 under CityU Enterprise Group. The company specializes in providing tailor-made solutions for the garment industry, workflow solutions for the trading and manufacturing industries as well as medical solutions.

SoftEnable is leaded by university professors and supported by employees with best academic qualifications and technical know-how. With such a strong technical team, the company has developed a number of innovative and comprehensive solutions for different industries including Computer-Assisted Simulation System for Orthognathic Surgery (CASSOS), GarmentOffice Deluxe (GO.D) and Collaborative Management System.

The company has strong domain knowledge on document and workflow technology, image computing and computer graphics which enables rich multimedia features in its solutions. Moreover, it has extensive background in system development and is very familiar with its target industries.

Its medical solution, CASSOS, is the first of its kind being developed for Orthognathic surgery in Hong Kong and South East Asia. Currently, an impressive list of worldwide clients in US, Europe, South Asia, mainland China and Hong Kong has adopted the solution.

The critical success factors of SoftEnable are corporate culture, solid experience and strong technical expertise. In future, the company will expand its target users of the GO.D solution, from garment industry to toys, gifts and premium industries. For CASSOS, it will be further applied to plastic surgery and orthodontics.

“Our solutions have won three IT awards within two years, reflecting that our efforts have been highly recognized by the industry. Moreover, the HKSAR Government has sponsored us to be the representative in the CeBIT 2003, the world's largest computer trade show,” said Prof. Horace Ip, President of SoftEnable Technology Limited. “Our solutions are leading the industry and set the standard of development.”
Company Background

SoftEnable Technology Limited (SoftEnable) is an associated company formed in 2000 under CityU Enterprise Group. The company is an Enterprise Document-Workflow and Professional Software Solution Provider which aims to “softenable” worldwide business with latest and advanced document, workflow and Internet technologies in various kinds of connected environment.

The company specializes in providing tailor-made solutions for the garment industry, workflow solutions for the trading and manufacturing industries as well as medical solutions. It is one of the few IT companies in Hong Kong and mainland China which develops medical solutions.

We decide to develop medical solutions as we think that a good medical solution can really benefit the patients and have a great impact on the society. Besides, we have been collaborating with medical doctors for many years so it is easier for us to communicate with them, to appreciate their constraints and to understand and meet their requirements,” said Prof. Horace Ip, President of SoftEnable. Its solution, Computer-Assisted Simulation System for Orthognathic Surgery (CASSOS), is widely adopted in Hong Kong, mainland China, Singapore, Malaysia, UK, and US (see table 1).

The company now has 17 staff in Hong Kong and works closely with an applied research center for the development of specialty software in ZhuHai.

Key Products & Services

SoftEnable is led by university professors and supported by employees with best academic qualifications and technical know-how (please refer to the bibliography of top management on page 98). With such a strong technical team, the company has developed a number of innovative and comprehensive solutions for different industries.

1 CASSOS - The first computer-assisted surgical planning system for orthognathic surgery developed in Hong Kong and South East Asia. It is an integrated and user-friendly system that provides a comprehensive range of functionality for maxillofacial surgeons to produce and evaluate surgical plans prior to actual surgery. Using advanced image processing and graphics technology such as non-linear soft issue morphing by advanced simulation and prediction algorithms, the system can facilitate surgeons to evaluate different surgical plans, predict surgery outcome, compare between pre-operative and post-operative appearance, and communicate with patients.

2 GarmentOffice Deluxe (GO D) - A comprehensive software solution tailor-made for the garment industry. It manages garment quotations and orders, assists material planning and requisition preparation, issues production order to factories, monitors shipping schedule and feeds accounting data to issue customer invoices.
3. Collaborative Management System (CMS) - An integrated document and workflow solution best suited for trading and manufacturing industries. Utilizing web-enabled and Client/Server technology, the system allows different parties to share documents and define workflow interactively.

**Competitive & Excellence**

SoftEnable has strong domain knowledge on image computing and computer graphics which enables rich multimedia features in its solutions. For instance, the workflow solution is able to store, retrieve and manage text, graphics and other multimedia elements like videos and hence is particularly useful for the garment and medical industries.

The company has strong track records in system development and is very familiar with its target industries. "We develop our solutions based on the industrial practice. For the GO.D, we work closely with the garment industry to understand their needs and constraints. With continuous enhancement and modification, the system is now able to meet 80% of all clients' needs in the garment industry," Ip mentioned.

For the GO.D solution, it is functionally comprehensive so that it can minimize the customization needs for each client. Moreover, it is flexible enough to allow users to have self-modification on the system if they have other specific requirements.

Moreover, SoftEnable has rich cooperation experience with the doctors. "Developing a medical system requires a variety of expertise. Not only we need to have strong technical skills to design and develop an accurate and reliable system but also the medical knowledge in order to communicate with the doctors and understand their medical terms and requirements," Ip said. "So far there is no IT company in mainland China or other Asian countries developing similar medical solution as CASSOS. We only have a few competitors from US," he added.

The company was nominated for 2004 China State Scientific and Technological Progress Award and was invited to represent Hong Kong in joining CeBIT 2003 in Germany. It has also won a number of rewards regarding its innovative solutions and outstanding performance in the industry.

Awards:

2003
- 2003 Asia/Pacific Information and Communication Technology Gold Award (APICTA 2003)
- Certificate of Merit, Hong Kong Awards for Industry 2003

2002
- IT Excellence Awards 2002 - Product Silver
CASSOS is the first of its kind being developed for Orthognathic surgery in Hong Kong. Since orthognathic surgeries are conducted based on a similar set of surgical skills and protocols in most countries, the solution can be adopted globally by different hospitals and universities. Currently, an impressive list of worldwide clients have adopted the solution (see table 1).

<table>
<thead>
<tr>
<th>Client</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing Medical University</td>
<td>Beijing, PRC</td>
</tr>
<tr>
<td>Shanghai Second Medical University Ninth People’s Hospital</td>
<td>Shanghai, PRC</td>
</tr>
<tr>
<td>Guanghua (Zongshan University) Hospital</td>
<td>Guangzhou, PRC</td>
</tr>
<tr>
<td>Prince Philip Dental Hospital</td>
<td>Hong Kong</td>
</tr>
<tr>
<td>Queen Mary Hospital</td>
<td>Hong Kong</td>
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<tr>
<td>Queen Elizabeth Hospital</td>
<td>Hong Kong</td>
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<tr>
<td>Princess Margaret Hospital</td>
<td>Hong Kong</td>
</tr>
<tr>
<td>National Dental Center</td>
<td>Singapore</td>
</tr>
<tr>
<td>School of Dental Sciences</td>
<td>Malaysia</td>
</tr>
<tr>
<td>Glasgow Dental School</td>
<td>UK</td>
</tr>
<tr>
<td>University Hospitals of Leicester</td>
<td>UK</td>
</tr>
<tr>
<td>University of Texas Health Science Center</td>
<td>Houston, US</td>
</tr>
</tbody>
</table>

Critical Factors

"Our solutions have won three IT awards within two years, reflecting that our efforts have been highly recognized by the industry. Moreover, the HKSAR Government has sponsored us to be the representative in the CeBIT 2003, the world’s largest computer trade show," said Ip. "Our solutions are leading the industry and set the standard of development."

Ip has identified three factors towards their success, namely, corporate culture, solid experience and strong technical expertise. SoftEnable has high morale and low turnover rate since all the employees are very devoted to their jobs and have joined the company for a long time. As a result, the company can retain employees’ expertise, skills, industrial knowledge and experiences as its valuable assets.

Moreover, the company has in-depth experience in cooperating with their target industries so they can develop a highly practical solution for that particular industry. Also, its technical experts have strong research background and are very skillful in developing different solutions to address the clients’ needs.

Future Plans

SoftEnable plans to expand the target users of the GO D solution, from garment industry to toys, gifts and premiums industries. For CASSOS, it will be further applied to plastic surgery and orthodontics in the near future.
Bibliography

Professor Horace H S Ip, President of SoftEnable Technology Limited

Professor Horace H S Ip received his B.Sc. (First Class Honours) degree in Applied Physics and Ph.D. degree in Image Processing from University College London, United Kingdom, in 1980 and 1983 respectively. He is the founding director of the AIMtech Centre (Centre for Innovative Applications of Internet and Multimedia Technologies) and the Sun Centre of Excellence in Pervasive Computing at City University of Hong Kong. Professor Ip serves on the International Association for Pattern Recognition (IAPR) Governing Board and served as founding co-chair of its Technical Committee on Multimedia Systems. He was the Chairman of the IEEE (Hong Kong Section) Computer chapter, a Council member of the Hong Kong Computer Society and the Founding President of the Hong Kong Society for Multimedia and Image Computing. He has published over 120 papers in international journals and conference proceedings. Professor Ip is a Fellow of the Hong Kong Institution of Engineers and the Institution of Electrical Engineers, UK.

Dr Ken C K Law, Vice-President of SoftEnable Technology Limited

Dr Ken C K Law received his BSc in Chemical Engineering from the National Cheng Kung University, Taiwan in 1974; MSc in Process Analysis and Development from the University of Aston in Birmingham, UK in 1976; and PhD in Computer Control, CNAA, UK, in 1979; MA (Honorary) from the University of Cambridge, UK in 1985. He is currently an Associate Professor at the City University of Hong Kong. He has published over 30 papers in international journals and conference proceedings as well as vast experiences in industrial consultancy and collaborations. Dr Law is a Chartered Engineer (UK) and member of professional institutions including IEEE, BSC, HKIE and HKCS.

Dr S L Chan, CEO & Vice-President of SoftEnable Technology Limited

Dr S L Chan received his PhD in Computing Science from the City University of Hong Kong in 1999. His research interests are multimedia document management, workflow management and content-based retrieval. He is currently the CEO of SoftEnable and the Centre Manager of University Research Centre (Centre for Innovative Applications of Internet and Multimedia Technologies). He has many years of experience on system design and project management of large-scaled ITF projects and enterprise consultancy projects especially in the textile and apparel field.
TA Consultants Group

Executive Summary

As a leading software company, TA Consultants Group (TA) has over 28 years of experience in design, development, and implementation of financial service applications. Two of its flagship products are TAMIC/II, an easy-to-use and powerful banking system development tool, and iTrade/II, a total Internet banking solution. The company now has over 100 staff in Hong Kong with branch offices in Shanghai, Singapore, Taiwan, Malaysia, and Thailand.

TA has established a renowned client list with over 80 international banks as major clients. In addition, three-quarters of the banks in Singapore are using TAs products. Owing to its outstanding achievements, the Group won the Innovation Bronze Award in the Hong Kong IT Excellent Awards 1998 and was selected as a showcase company by Hong Kong Trade Development Council for the promotion of Hong Kong IT business in 2003.

The key success factors for TA are having implemented a strategic business model and solid experience in the banking sector.

The Group plans to focus more on recurrent income that can be based on transactions or number of users. Furthermore, it is going to expand its Mainland business in order to capture the opportunities of the booming financial market in mainland China.

"The project [Foreign Exchange Income and Expense Declaration System for the State Administration of Foreign Exchange Shanghai] involves more than 300 banks and their branches and over 30,000 corporations," said Mr. Mowling Tung, Managing Director of TA Consultants Group. "Our solution may have formed one of the largest banking networks in the world."
Company Background

Founded in 1976, TA Consultants Group (TA) is a premier software company specializing in the design, development and implementation of financial service applications. Currently, its markets cover US, Europe and seven countries in the Asia/Pacific region.

TA has gone through three business development phases. From 1976 to mid 1980s, the Group had been a leading technology company in Hong Kong. It developed and implemented applications for customers covering more than thirty lines of business, thereby building up its strong technological know-how.

"In 1987, we decided to globalize our business as we had gained a dominant share of the local market," said Mr. Mowling Tung, Managing Director of TA Consultants Group. "We consider banking to be a potential market that the Group can pursue for globalization. Many banks prefer to buy a software package because they can buy the 'experience' embedded in the package, not just the technology."

The Group then invested approximate US$25 million, over 40 technical staff and more than 10 years on software development and successfully transformed into a product company specializing in selling software packages to the banking and financial industry.

To add value to its customers, TA decided to develop itself further into a service-oriented company. In 2000, it formed a wholly owned subsidiary called ecSolutions Corporation Limited to offer new service concepts and assist customers to develop good business models.

Nowadays, TA has over 100 staff in Hong Kong with branch offices in Shanghai, Singapore, Taiwan, Malaysia and Thailand.

Key Products & Services

"TA has extensive knowledge of a vast array of hardware, operating systems and database management system. Its products are component-based, platform independent and easy-to-use," Tung said.

The flagship products of TA include:

1. **TAMIC/II** - An easy-to-use and powerful banking system development tool. It allows users to develop their own back-end systems, covering a wide range of banking operations from retail banking to corporate banking. TAMIC/II supports user oriented language, five layers reusability, multi-platform portability, distributed architecture, multi-tiers client server and Windows/Text mode presentation.

2. **iTrade/II** - A total Internet banking solution. iTrade/II is a front end platform which allows customers to use banking services without leaving their home or offices. Customers can conveniently do banking transactions using any web browser with a few mouse clicks. To ensure maximum security, iTrade utilizes the industrial standard SSL 3.0 with 128-bit encryption for all transactions. It also offers interface to portable devices such as smartcard to further enhance the system security.
"The architecture of our products can support the growth of our clients on a global basis," Tung expressed. "This is very difficult to accomplish for an IT system." Utilizing pier-to-pier technologies and innovative design concepts which allow high degree of portability and scalability, TA's solutions can address customers' business development needs, assisting them to win in today's highly competitive world.

"Bankers are very practical. If your products are not good, you cannot build up your reference cases," he continued. More than half of TA customers have written appreciation letters to express their satisfaction with the performance of TA. The customers regard TA as being professional and credible. Most importantly, TA has offered premium pre-sales consultation (including information/advice on system architecture, interfaces, workflow, application functions/features, hardware sizing, communication and database) and after-sales services to address their needs.

In 1998, TA beat over 60 IT firms participated in the Hong Kong IT Excellence Awards and won the Innovation Bronze Award for its outstanding achievements. Moreover, it was selected as a showcase company by Hong Kong Trade Development Council for the promotion of Hong Kong IT business in 2003.

**Track Records**

More than 80 international banks are the major clients of TA, including ABN Amro Bank, Citicorp, HSBC, Chase Chemical Bank, Overseas-Chinese Banking Corporation, United Overseas Bank and Malayan Banking Berhad. In Singapore, three-quarters of the banks are using TA's products. With innovative and scalable systems, TA helps its clients to reduce cost and increase efficiency in banking operations.

"ABN Amro Bank is one of our largest clients and uses our banking solution in over 50 countries. They consider the implementation of our solution has contributed greatly to their global business development," Tung expressed.

Another key project of TA is the implementation of the Foreign Exchange Income and Expense Declaration System for the State Administration of Foreign Exchange Shanghai.

"The project [Foreign Exchange Income and Expense Declaration System for the State Administration of Foreign Exchange Shanghai] involves more than 300 banks and their branches and over 30,000 corporations," he said. "Our solution may have formed one of the largest banking networks in the world."

In fact, the project not only opens up new market for TA but also boosts the growth of business-to-business development in mainland China in the dawn of its entrance to WTO.
Critical Success Factors

TA is built upon a good business model. "Any business model has to be practical and a good model must be services-oriented and can generate recurrent income," Tung noted.

The Group has changed its business model strategically to adapt for growth and business development. As a start-up in 1976, it built up its technical expertise by investing heavily in R&D. With the experience gained from software development and the high potential of the banking sector, the Group started to transform itself into a product company and expanded into the global market since 1987.

Now, being a service-oriented company, TA is able to generate recurrent income as their customers’ businesses grow. "As they add more services, more income can be generated. Given the cost is constant, the more the services are added, the higher the return on investment," he said. "This model can run by itself and the revenue can be infinite."

Another equally important factor is solid experience in the banking sector. "We have completed many big projects for multinational banks. Our customers are very satisfied with our solutions," he continued. "To be a first-class service provider, you should be able to solve your clients’ problems before they call you."

"During every phase of business transformation, you may encounter some bitter experiences. Learn from the experiences and never give up. You should know your business scope and mission statements clearly," Tung expressed.

Future Plans

TA's future plan is to focus more on recurrent income that can be based on transactions or number of users. This includes annual license and service fees, maintenance and user training.

In addition, the Group plans to expand its Mainland business in order to capture the opportunities of the booming financial market in mainland China. "We shall grow with our clients. As they expand its operations in different Mainland cities, our geographic coverage will be broadened," Tung said.
Biography

Mr. Mowling Tung,
Managing Director of TA Consultants Group

Mr. Tung founded the Group in 1976 and has since served as its Chairman.

Under his leadership, the Group has provided software services to clients in many different industries and evolved to becoming an international software company specializing in banking software systems with operations in Singapore, Malaysia, Taiwan, Hong Kong, Macau and Mainland China.

During the growth history of the Group, Mr. Tung has also served as chief architect in creating innovative development methodologies/tools and software products. One of the Group's proprietary development products has won an innovative design award from the Hong Kong Computer Society.

Mr. Tung has been an active member of the IT community in Hong Kong. He has served on Advisory Boards at the Hong Kong Management Association, Hong Kong Computer Journal, Computer Departments at Lingnan University and the City University of Hong Kong.
Executive Summary

TeleEye Group (the Group) was founded in 1994 by the City University of Hong Kong and a group of engineering researchers. It offers a wide range of remote visual management systems and solutions, including TeleEye III+ Video Recording Transmitter, Cyber TeleEye Web Video Solution, TeleEye Multi-site Reception Software, TeleEye M-monitoring Solution and TeleEye Central Monitoring Station.

To increase the competitiveness of its products, the Group has developed some new technologies, including the compression technology to increase the image refreshing rate and the sureLINK technology to allow using dynamic IP address when connecting the video record transmitter to the Internet. Owing to its innovative technologies and products, the Group has won numerous prestigious local and international awards.

The Group has an extensive distribution network with 100 dealers and 31 overseas distributors over 25 countries worldwide. Moreover, it partners with NTT DoCoMo in Japan and Hutchison Telecom in Hong Kong to offer wireless solutions.

The key factors for the Group's success are striking a balance between R&D and marketing as well as the founders' commitment.

The Group is going to further expand its market reach to all over the world and develop more mobile applications.

"NTT DoCoMo has acknowledged that our TeleEye IH+ VT Video Transmitters and TeleEye III+ VR Video Recording Transmitters fully support its mobile service and can be promoted using the 'Link to DoCoMo' symbol," said Dr. Cliff Chan, CEO of TeleEye Group. "Moreover, we have successfully tested and developed the world's first 3G mobile and network camera running on the Japan's FOMA (3G) mobile network."
**Company Background**

Founded in 1994 by the City University of Hong Kong and a group of engineering researchers, TeleEye Group (the Group) is principally engaged in the development, sales and marketing of innovative products that make use of advanced signal processing technologies.

TeleEye Holdings Limited, the holding company of the Group, was listed on the Growth Enterprise Market of The Stock Exchange of Hong Kong Limited in May 2001. The successful listing enhanced the brand awareness of the Group and marked a historical event as the first listed high tech company nurtured by a local government sponsored university in Hong Kong. The Group has stepped into its 10th anniversary in 2004.

"Research is leading the way to innovation but very often it tends to be theoretical. We aim to commercialize our research results and we are lucky that we succeed," said Prof. Cliff Chan, CEO of the Group.

The Group has rapidly grown to become a dynamic and world-class supplier of remote visual management systems with extensive applications in various industries.

"Our products suit any company that has operations in multiple locations," said Chan. "Many companies in Hong Kong have operations in the Mainland or overseas countries. It's difficult to send people over to check the sites every day. We help them maintain supervision at these locations."

Headquartered in Hong Kong, the Group has established four branch offices in Japan, Singapore, mainland China and UK to further tap into the regional markets, with over 50 staff. In addition, it has an extensive distribution network with 100 dealers and overseas distributors covering 25 countries worldwide.

**Key Products & Services**

The basic operation of TeleEye remote video monitoring system includes a TeleEye video transmitter and a TeleEye reception software. Moreover, by installing different TeleEye accessories, various desirable value-added monitoring functions can be achieved.

One of its flagship products in video transmission is TeleEye III+ Video Recording Transmitter (VRT) which can view live video and play back recorded video simultaneously from a remote location through the Internet, PSTN, LAN, ISDN or mobile network.

The Group also offers the following software and solutions:

1. **Cyber TeleEye Web Video Solution** - It allows users to upload and manage live video on their own websites.

2. **TeleWin Multi-site Reception Software** - It can view up to 16 remote sites simultaneously from a personal computer. The software is the best solution to manage and centralize the control of chain stores and alarm centres.
3. **TeleEye M-monitoring Solution** - It helps professionals and managers to quickly, easily and conveniently observe remote video of their business with a PDA anywhere anytime. It can bring the users high quality remote video streaming on PDA when using with the 2.5G mobile network at speed up to 64 kbps.

4. **TeleEye Central Monitoring Station** - It is designed for central monitoring and visual alarm verification applications. Different levels of access right on the system can be assigned to operators. Customer's details are stored for prompt actions upon an alarm event.

**Competitive Edges & Excellence**

"Our products are highly competitive. For example, our competitors provide video recording transmitter with maximum refreshing rate of 4 frames per second and requesting a fixed IP address. Our TeleEye Transmitters can achieve a maximum refreshing rate of 30 frames per second due to our leading compression technology," said Chan. "Moreover, with our sureLINK technology, the TeleEye transmitters can connect to the Internet through ADSL with dynamic IP address. This is a cost-saving method to our users."

In view of its innovative technologies and products, the company has won numerous prestigious local and international awards, including:

Awards:

- **2003** Gold Award in the HKEIA Award from Hong Kong Electronic Industries Association, Hong Kong Trade Development Council and ElectronicAsia
- **2002** Award of Security Solution of Year 2002 from International Bodyguard and Security Services Association and Detektor Magazine.
- **2000** New Millennium Award for Technology and Quality from Trade Leader’s Club in Spain
- **1999** Certificate of Merit in Consumers Product Design, Hong Kong Awards for Industry from Federation of Hong Kong Industries
- **1998** Silver Medal, The Chinese International Invention Expo’98 from Hong Kong Productivity Council and Hong Kong Inventors Association
- Certificate of Excellence in the Enterprise Trophy, DHL/SCMP Hong Kong Business Awards from DHL and South China Morning Post
- **1997** Gold Award, Hong Kong Small Business Award from Hong Kong General Chamber of Commerce and AT&T
- HKITCC Certificate of Merit in Technology Achievement, Hong Kong Awards for Industry from Hong Kong Industrial Technology Centre
- **1995** Certificate of Merit in Consumer Product Design, Hong Kong Awards for Industry from Federation of Hong Kong Industries

Bank of Communications, a well-known bank in mainland China, has installed the TeleEye III+VT Video Transmitter and TeleEye Multi-site Software in over 100 ATM centres in Shanghai. Whenever a customer enters the ATM centre, the passive infra-red sensor on the entrance is triggered and the unit will automatically dial back to the central monitoring station and record video. The system allows real time multi-site monitoring and recording and provides the bank with visual alarm verification upon alarm occurrence and reduces false alarms. Table 1 lists some of the major applications and success stories of the Group’s products.

The Group has teamed up with the Hutchison Telecom in Hong Kong to jointly offer a high-speed wireless monitoring solution through their 2.5G services. Moreover, NTT DoCoMo, the telecommunications giant in Japan, shows great interest in the Group’s mobile solutions.

"NTT DoCoMo has acknowledged that our TeleEye III+VT Video Transmitters and TeleEye III+VR Video Recording Transmitters fully support its mobile service and can be promoted using the ‘Link to DoCoMo’ symbol," said Chan. "Moreover, we have successfully tested and developed the world’s first 3G mobile and network camera running on the Japan’s FOMA (3G) mobile network."

Apart from that, the Group also offers some collaborated solutions and joins forces with large-scale telecommunications companies and security-related suppliers as business partners, such as Cisco Systems, CLP TeleCom, K.Wah Real Estates Co Ltd., HKNet Co Ltd., Securitas Security Services Ltd., Bell Communications Ltd., and Visual Verification Ltd..

<table>
<thead>
<tr>
<th>Client</th>
<th>Application</th>
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<tbody>
<tr>
<td>Lik On Security Ltd</td>
<td>Property Management - Set up a huge and advanced property management network composed by hundred sets of the TeleEye system.</td>
</tr>
<tr>
<td>Securitas Security Service Ltd.</td>
<td>Visual Alarm Verification for Alarm Centre - Take TeleEye system as a remote surveillance tool to tackle the problems caused by false alarms.</td>
</tr>
<tr>
<td>Hong Kong Housing Authority</td>
<td>Construction Site Monitoring - Employ TeleEye III+ remote video monitoring system in its construction sites for non-stop site monitoring and inspection.</td>
</tr>
<tr>
<td>Nippon Express (HK) Company Ltd.</td>
<td>Logistics Management - Deploy TeleEye remote surveillance system for the management of their cargo centers.</td>
</tr>
<tr>
<td>Luk Fook Holdings Group</td>
<td>Retail Shop Surveillance - Use TeleEye systems to ensure an always-secure environment in its jewellery shops</td>
</tr>
</tbody>
</table>
Sun Sang Chemicals Processing Company Ltd. | Cross-boarder Factory Management - Able to monitor cross-boarder manufacturing operations while performing their usual administration, management, sales and marketing, accounting works or other duties simultaneously in the head office.

The Holiday Inn Resort Hotel | e-Promotion and Web-based Video Monitoring - Install Cyber TeleEye in the hotel to provide live video on the Internet for attracting more worldwide tourists.

The Customs and Excise Department, Panyu City, mainland China | Port Monitoring - Employ TeleEye Pro Phone Line Video Monitoring System to monitor the operations and activities at seven ports in Panyu City and its vicinities.

**Critical Factors**

Investing on both R&D and marketing and striking a right balance between these two areas are crucial to the Group’s success. The Group spent around 18% of its annual revenue on R&D last year to continuously upgrade its products. On the other hand, it also emphasizes on product promotion.

"Many people are less eager to adopt new technology products. We have to spend time to educate them and show them how our products can help their business," commented Chan.

Another key success factor is the founders' commitment. From doing research in the university to being the key shareholders in a listed company, the founders have spent much time and efforts to bring up the Group and find the best way to develop their business.

**Future Plans**

The Group will further expand its market reach to all over the world and develop more mobile applications. "At present, 70% of our customers come from overseas countries and Europe is our biggest market. In future, we will spend more time on these overseas markets," said Chan.

"As mobile commerce and digital recording will be the trend, we will put more efforts in developing new solutions that can be used in these areas," he continued.
Bibliography

Prof. Cliff Chan,
CEO of TeleEye Group

In 1994, Prof. Chan together with his colleague, Dr. C. F. Chan, former research students and the City University of Hong Kong founded TeleEye Group, with the mission of commercializing research results in image, speech and signal processing areas developed by his research team in the City University of Hong Kong. He is presently an Adjunct Professor of the Department of Computer Engineering and Information Technology at the City University of Hong Kong.

Prof. Chan has published extensively in signal and image processing fields. He has received numerous awards including the Grand Prize in the Second Applied Research Excellence Award of the City University of Hong Kong in 1998 and the IEEE Third Millennium Award for Outstanding Achievement and Contributions in 2000. In 1996, the EDN ASIA Magazine also named him an “EDN ASIA Innovator” for his contributions in image compression research.

Prof. Chan is a Chartered Engineer of the Engineering Council, the UK and a member of Institute of Electrical Engineers, the UK and the Hong Kong Institution of Engineers, Hong Kong. He has actively involved in IEEE activities since 1989 and was elected the Chairman of the IEEE Hong Kong Section in 1995 and 1996. Prof. Chan is currently the Vice Chairman of Industry and Technology Committee of General Chamber of Commerce and member of the TDC Electronics/Electrical Appliances Industry Advisory Committee. Prof. Chan received both his Bachelor and Master degrees of science in Electrical Engineering from the University of California, Los Angeles in 1977 and 1978 respectively. He obtained his PhD degree in Electronics from the Chinese University of Hong Kong in 1984.
Titanium Technology Limited

www.titanium-tech.com

Executive Summary

Titanium Technology Limited (Titanium) was established in 2001 as one of the leading vendors of Digital Identification products in the world, focusing on biometrics face recognition technology and Single Sign-on. Titanium has Asia headquarters in Hong Kong, Europe headquarters in Frankfurt, Germany and US headquarters in San Francisco, US. A strong R&D team is located in mainland China.

Face recognition has lots of advantages as it allows high enrollment and verification rate and is accurate and compatible with existing hardware infrastructures. Also, it does not require any physical interaction with users, nor expert to interpret the results and is the only biometrics which is capable of passive identification in a one-to-many environment. Currently, the company offers a number of solutions including ProAccess FaceOK, ProFacer and Single Sign-on.

The major clients of Titanium include government departments and large corporations. The success of the company is attributed to good management, valued people, luck, good personal relationship and having everything well-coordinated.

In future, the company will continue to develop the local market, try to globalize its business and expand its presence in Japan, Australia, Germany and US. On the other hand, it is considering to spin off its system integration unit into a separate business entity so that each company can specialize on its own domain. In terms of product, security is still its focus.

ProAccess FaceOK was launched in mid 2003 while it won the Certificate of Merit in Hong Kong Awards for Industry and was the first local IT company being selected as the finalist in the Security Infrastructure Category for the ‘Best of COMDEX Las Vegas 2003 award’ by the end of that year,” said Mr. Billy Tang, Director of Titanium Technology Limited.
Company Background

Titanium Technology Limited (Titanium) was established in 2001 as one of the leading vendors of Digital Identification products in the world, focusing on biometrics face recognition technology and Single Sign-on.

Titanium was founded by a group of young people who had previously established a company to develop biometrics fingerprint technology. Having a success on the business, that company was then sold and the founders started their new business on face recognition, "We realized that although biometrics was not very popular at that time, it would become a key trend in the future. Therefore, we continue to develop biometrics technology while shifting the focus to the more powerful and reliable aspect of face recognition," said Mr. Billy Tang, Director of Titanium.

The company has been making great efforts in the field of biometrics technology and providing face recognition Software Development Kit (SDK), face recognition applications and other digital identification systems according to customers' requirements. With its outstanding features and competitive price (1/3 of similar products from overseas), its products have successfully entered the global market.

Titanium has Asia headquarters in Hong Kong, Europe headquarters in Frankfurt, Germany and US headquarters in San Francisco, US. The company has a strong R&D team in the Mainland to develop the application and staff in Hong Kong to develop the core engine.

Key Products & Services

Titanium specified in developing biometrics face recognition technology. Biometrics is a unique, measurable characteristic of human being that can be used to recognize an individual or verify an individual's identity automatically.

The company offers the following key solutions:

1. ProAccess FaceOK - A face recognition software that can accurately detect, recognize and identify human faces so as to protect data and computer systems. It takes only one tenth of a second to detect a person's face and one second to provide recognition of a person's identity on an ordinary PC. This system targets at corporations with desktop computers.

2. ProFacer - A Real-time Face Surveillance System which is developed with the most advanced biometrics technologies for automatic real-time facial recognition. When the system is attached to a video surveillance system, it can search the field of view of a video camera for human faces and intelligently monitor the faces and match them against the face database.

3. Single Sign-on - A system which allows users to access multiple applications after being authenticated once.
Competitive

& Excellence

Face recognition has lots of advantages as compared to other types of biometrics technology. It allows high enrollment and verification rate and is accurate and compatible with existing hardware infrastructures. This technology requires no physical interaction with users and no expert to interpret the results. Also, it is the only biometrics which is capable of passive identification in a one-to-many environment.

'ProAccess FaceOK was launched in mid-2003 while it won the Certificate of Merit in Hong Kong Awards for Industry and was the first local IT company being selected as the finalist in the Security Infrastructure Category for the 'Best of COMDEX Las Vegas 2003 award by the end of that year,' said Mr Billy Tang, Director of Titanium.

ProAccess FaceOK is cost-effective and user-friendly. The unit price for each set of hardware and software is only about HK$500 so it can be afforded by many kinds of business. Besides, the system is very convenient as users only need to stay in front of the webcam for capturing their face and enabling login. Any change in facial expression, hairstyle or background may not affect the recognition process.

More importantly, the system has the audit trail function which can capture all the unauthorized login attempts (with images) and store in the log file. The audit trail function is very attractive to the users. In large companies, some computers may be shared among different users for administrative purposes so it is very difficult to track which user has done what on the system. Even there are security guidelines guiding users to keep records, users may not follow,' Tang claimed. "Audit trial can capture and store all the users' faces and therefore making each user's actions accountable."

Track Records

Titanium was awarded a PC/LAN bulk tender to supply software to all departments of the HKSAR Government for three years since 2003. "We were still a small company at that time and it was very difficult for a company of our size to enter the Government's bulk tender list," Tang said. The competitive technology and uniqueness of Titanium's products, combined with the company's sincerity in providing more options and customization to users to fulfill their requirements, have facilitated the cooperation with the HKSAR Government.

Titanium has lots of reputable clients including MTR, HKSAR Government, ZhongZhan PRC Government, Hong Kong Institute of Vocational Education, ESPN, British American Tobacco, Hong Kong Academy of Medicine and Hong Kong Exchanges and Clearing Limited.
Critical Success Factors

People is one of the most important assets to Titanium ‘We have the people and from them we get new ideas With these ideas, we can utilize the latest technologies to develop the products It is so important that everything starts with people,’ Tang expressed

Titanium has a strong R&D team who has successfully transferred some of the researches from university into commercial applications Its Ti-Face SDK technology is patented and has successfully entered the global market “Our top management are highly involved in the business so as to have good control of the company No pains no gains We believe our enthusiasm towards the business is crucial to success,” he added

Besides having good management and valued people, the company realizes that addressing the clients’ needs and making them happy is very important Since its early establishment, it provides additional options and offers system customization to the clients in order to maximize their satisfaction

Nevertheless, Tang mentioned that luck, good personal relationship and having everything well-coordinated are also the keys to success

Future Plans

Hong Kong will continue to be an important location for business development while Titanium will further develop the Mainland market Moreover, the company aims to globalize its business and expand its presence in Japan, Australia, Germany and US

On the other hand, Titanium is considering to spin off its system integration unit into a separate business entity so that each company can specialize on its own domain

In terms of product, security is still its focus “Any company needs security to protect their systems As more and more computer viruses appear, security solutions will continue to be in high demand for tackling the problems,” said Tang In addition, the company will apply the security and face recognition technologies in other areas and car safety is likely to be its next application development
Mr. Billy Tang,  
Chief Operation Officer of Titanium Technology Limited

Mr. Tang is the Chief Operation Officer of the Group responsible for the management and overall operation of the company. Under his leadership, Titanium has experienced tremendous growth and has increased its employee base to over 50 employees worldwide in just over a year.

Prior to co-founding Titanium, he was also a co-founder and chairman of 303 Company Limited. Mr. Tang previously was an instrumental member of research team in the department of industrial and systems engineering of the Hong Kong Polytechnic University, where he focused on the research of virtual reality technology. He also held senior position in one of the largest Internet Service Provider (ISP) in Hong Kong. Mr. Tang holds a Bachelor's degree in Mathematics from the Hong Kong University of Science and Technology.
Executive Summary

Established in Hong Kong in 2000, Unihub Limited (Unihub), a wholly-owned subsidiary of PCCW, offers IT consulting services, infrastructure solutions and industry-specific IT solutions in Hong Kong and mainland China, with a key focus on the areas of financial services, public sector, telecommunications and large enterprises. Currently, the company has offices in Hong Kong and several cities in the Mainland.

Armed with a team of high quality IT professionals and solid experience, Unihub has successfully implemented many large and complex projects, including the Smart ID card contract with the Immigration Department, HKSARG and the enterprise resources planning and management information system project for China Mobile Communications Corporation which is also one of the largest IT project in mainland China.

Unihub’s efforts on its quality service and product excellence have been highly recognized. The company not only has obtained many quality certifications including CMMI Level 5 and ISO 9001 for network and IT services but also won Gold Awards in Asia Computer Weekly Readers Choice 2003 and IT Excellence Awards 2000.

Unihub’s key success factors are having experienced and talented IT professionals and a powerful network of technology alliances.

"Unihub has demonstrated its capability as a trusted IT&T solutions partner through its successful implementation of various large and complex IT projects in Hong Kong and the Mainland. One key project is the Smart ID card contract with the Immigration Department, HKSARG to provide the hardware, software and services of the Hong Kong Smart Identity Card System," said Dr. Thomas Siu, Managing Director of Unihub limited.
Company Background

Unihub Limited (Unihub), formerly PCCW Business eSolutions Ltd, is a wholly-owned subsidiary of PCCW for IT solutions and services delivery. At the very beginning, it was a business unit catering for the internal IT projects of PCCW. Witnessing the rising IT demands from various organizations in Hong Kong and mainland China as well as riding on its own IT and telecommunications (IT&T) experience, Unihub was formed in 2000 to capture the new business opportunities.

With high-quality talents and IT professionals, Unihub offers best-of-breed IT consulting services, infrastructure solutions, and industry-specific IT solutions in Hong Kong and mainland China, with a key focus on the areas of financial services, public sector, telecommunications, and large enterprises (see Table 1).

At present, Unihub has offices in Hong Kong and several cities in mainland China.

Key Products & Services

Unihub's services are diversified, ranging from system integration, application development, designing and developing IT infrastructure, application management, and maintenance operation management to business process outsourcing.

It also provides integrated IT&T solutions to customers covering banking solutions, enterprise resources planning (ERP), customer relationship management, business intelligence, corporate performance management, collaborative commerce solutions, smart card solutions, and flight information display services.

Leveraging on its solid background in IT&T, Unihub has successfully implemented many major projects in Hong Kong and mainland China (see also the track records on page 117). These projects demonstrate that Unihub not only possesses the industry knowledge to help customers on strategies and business process re-engineering but also arms with the technical capability to implement the IT solutions for the customers along the design-build-operate value chain according to their specific requirements.

Competitive Edges & Excellence

One of the key advantages of Unihub is having a resourceful and trustworthy team of 2,000 experienced and talented IT professionals. Their hands-on experience in the design-build-operate value chain in different industries speaks volumes about why the customers rely on Unihub.
We are fully geared to deliver total business solutions to our customers in Hong Kong and mainland China. Our highly skilled teams combined with the establishment of joint ventures throughout the region ensure that our role in the industry and our local knowledge is always on the leading edge, mentioned Dr Thomas Siu, Managing Director of Unihub.

Unihub's excellence can be reflected by the quality certifications and awards obtained.

**Quality certifications**

- **2004**: CMMI Level 5 for software engineering excellence
- **2003**: BS 7799 Associate Consulting Partner Certification for helping other organizations to achieve their certification
- **2002**: BS 7799(2) for information security management
- **2002**: CMM Level 4 for application management and development
- **2001**: BS 7799 for information security management
- **2001**: ISO 9001 for network and IT services
- **2000**: SunTone™ Certification for quality data center operations and processes of Powerbase

**Awards**

- **2003**: Hosting and data center services - Gold performer, ACW Readers Choice 2003 from Asia Computer Weekly magazine
- **2000**: Application Gold Award, IT Excellence Awards (Dynamic Work Force Management) from Hong Kong Computer Society

**Track Records**

Unihub has demonstrated its capability as a trusted IT&T solutions partner through its successful implementation of various large and complex IT projects in Hong Kong and the Mainland. One key project is the Smart ID card contract with the Immigration Department HKSARG to provide the hardware, software and services of the Hong Kong Smart Identity Card System, said Siu.
Other major IT projects include

- Building an advanced nationwide ERP and Management Information System (MIS) for China Mobile Communications Corporation. This solution currently represents the largest ERP and MIS project in mainland China.

- Developing and implementing the Order Routing System, the Multi Workstation System, and the real-time AMS/3 trading network for Hong Kong Exchanges and Clearing Limited. Services included the installation and configuration planning, control, and management of various implementation tasks.

- Implementing an Electronic Procurement System for Hong Kong Dragon Airlines Limited. The system provides end-to-end procurement process, business process analysis, software development, and computer system integration.

- Designing and managing the project of Super Internet Data Center (SIDC) and the related Network Operating Center for China Netcom Corporation, which is now the largest data center project in Asia. With the new SIDC, China Netcom can now provide various on-demand value-added services to different customers according to their needs.

A summary of major clients is shown in Table 1.

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Client</th>
</tr>
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<tbody>
<tr>
<td>Financial Services</td>
<td>Bank of China, Hong Kong Exchanges and Clearing Ltd, Dah Sing Bank</td>
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<td>Fidelity Investments Management (HK) Ltd, Mm Sheng Bank</td>
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<td>Public Sector</td>
<td>Immigration Department of the HKSARG, Hong Kong Housing Authority</td>
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<td>Hong Kong Council of Social Service, Hong Kong Airport Authority</td>
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<td>Cyberport, Efficiency Unit of the HKSARG</td>
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<tr>
<td>Telecommunications</td>
<td>China Telecom Corporation, China Mobile Communications Corporation</td>
</tr>
<tr>
<td></td>
<td>China Netcom Corporation Ltd, Guangdong Telecom, Shandong Communication Corporation Ltd, CSL</td>
</tr>
<tr>
<td>Large enterprises</td>
<td>Hong Kong Dragon Airlines Ltd, Borghese Ltd, Minolta Hong Kong Ltd</td>
</tr>
<tr>
<td></td>
<td>Sunflower Travel Service Ltd, Tianjin Light Industry Equipment Institute</td>
</tr>
<tr>
<td></td>
<td>Vogue Laundry Service Ltd</td>
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</table>
Unihub's critical success factors lie in its team of experienced and talented IT professionals and a powerful network of technology alliances. It has one of the largest pools of certified professionals in the area of security, network, database, Unix, Microsoft, and project management in Asia. Its best practices are well recognized by international organizations that measure and set standards for the industry. Through its solid experience for the on-time delivery of complex projects in Greater China, Unihub understands the specific requirements of the customers. Leveraging on its strengths, Unihub offers the best mix of solutions and technologies along the design build operate value chain to cater for customers' needs.

Unihub's technology and vendor neutrality have earned trust from our customers. They are assured that the solutions offered are best tailored to their requirements. Siu said, PCCW is an integrated communications company and Unihub possesses practical IT&T experience in operating various IT infrastructure and IT systems that support the operation of a telecom company. Advanced IT solutions are heavily relied on to ensure Unihub stay competitive.

We are willing to share our IT&T experience with our customers to achieve operational efficiency and stay ahead of their rivals, he added.

**Future Plans**

In future, the company will keep providing IT consulting services, industry solutions, IT infrastructure solutions, outsourcing, and managed services in Hong Kong and mainland China with a key focus on the areas of financial services, public sector, telecommunications, and large enterprises.
Biography

Dr. Thomas Siu,
Managing Director of Unihub Limited

Dr. Thomas Siu is the Managing Director of Unihub Limited, a wholly-owned subsidiary of PCCW, which focuses on providing integrated information technology solutions. He has more than 20 years of experience in telecom and IT industries. His experience covers systems consultancy, finance, business development and IT management.

Dr. Siu now leads a sizeable team of IT professionals to provide total solutions to enterprise customers across Greater China. The spectrum of solutions ranges from large-scale IT system development, ERP system implementation, system integration, to outsourcing and managed services, data centers and network integration. Prior to joining the telecom industry, he worked as senior consultant in Accenture, focusing on banking systems.

Dr. Siu holds a Bachelor of Business Administration degree from The Chinese University of Hong Kong, a Master degree in Computing Science from Imperial College of the University of London and a Doctor of Philosophy degree in Information Systems from Curtin University of Technology of Australia. He is a qualified accountant and a member of the British Computer Society and the Hong Kong Computer Society.
Excellence of Hong Kong software enterprises 2004
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