

Sector Profile for Information Communication Technology in the Malaysian Market

1.0 OVERVIEW¹

In 1991, the Malaysian government formulated the Vision 2020 objective to achieve a fully developed nation status by the year 2020. To achieve this objective, Malaysia is being developed into a Knowledge-based Economy, where the focus will be on transforming Malaysia into a productivity-oriented economy. As such information communication technology (ICT) was recognised as a strategic enabling tool to support growth of the economy and the government is focused on promoting the extensive application and usage of ICT in various sectors.

Several programmes were launched to lay the foundation for a knowledge-based economy:

- **National IT Agenda**
To formulate strategies and promote the utilisation and development of information technology.
- **Multimedia Super Corridor (MSC)**
To create an ideal IT and multimedia environment as well as a global test-bed, enabling Malaysia to attract knowledge workers, technopreneurs and high-technology industries.
- **National Broadband Plan**
To increase the penetration and utilisation of high-speed information communication access.
- **MyICMS 886 Strategy (Malaysian Information, Communications & Multimedia Services)**
Five-year blueprint to propel Malaysia in the delivery of advanced information, communications and multimedia services.

Associated to these programmes, the following agencies were established to facilitate and monitor the development and implementation of the ICT initiatives in Malaysia:

- **National IT Council**
Provides advise and recommendations to the government on issues and policies regarding ICT development.
- **Multimedia Development Corporation**
Spearhead the development and implementation of the Multimedia Super Corridor (MSC).
- **Malaysian Administrative Modernisation & Management Planning Unit (MAMPU)**
Plan and monitor the development and use of ICT within the public sector.

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- **Malaysian Communication & Multimedia Commission**
Implements and promotes the national objectives for the communications and multimedia sectors.

2.0 STRATEGIC AIMS IN MALAYSIA

In meeting with the Vision 2020 objective and the development of a knowledge-based economy, the Malaysian government has undertaken to achieve several aims:

- **Positioning Malaysia as a major global ICT and multimedia hub**
Facilitate Malaysian ICT companies to compete globally, especially in critical areas such as banking, finance, logistic, manufacturing and key services.
- **Upgrading and expanding the communications infrastructure to increase accessibility throughout the country as a means of bridging the digital divide**
Focusing on upgrading the communications network in line with technological advancement by providing affordable broadband access and extending the ICT infrastructure to rural areas.
- **Enhancing human resource development in ICT to increase supply of human skilled and knowledge manpower**
Efforts to improve and expand ICT education, internet access made available to schools and rural areas through satellite communication as well as on-going training to the ICT workforce.
- **Promoting e-commerce and enhancing its use to enable Malaysia to compete more effectively in the global market**
Focus on promoting and encouraging the wider use of e-commerce as well as undertake measures to build trust and confidence in e-commerce, including security and privacy for customers.
- **Rolling out MSC flagship programmes to further provide the momentum for the development of the MSC**
Identification and rolling out of seven MSC flagship programmes to attract leading-edge technology developers in the MSC, and to promote the transfer of technology and R&D.
- **Nurturing a critical mass of ICT-based SME's**
Creation of a critical mass of ICT-based SME's by establishing an ICT fund to provide financial support, which would include flexible lending requirements and greater access to the fund.
- **Promoting R&D activities on soft factors of ICT and information age developments that affect individuals, organisations and societies**
Working in collaboration with public institutions of higher learning to undertake research on the soft elements of ICT development in order to recognise the issues and challenges.

3.0 MARKET TRENDS

3.1 Current Trends

The Malaysian ICT market continues to grow in various areas despite a cautious global economic outlook among enterprises and consumers. The local ICT industry currently contributes 7.5 percent of total Gross Domestic Product. Additionally, the total ICT spending in 2005 was approximately US\$8.4billion (NZ\$11.4billion) with 68 percent spent on communications. The majority of the communication spending was in the wireless voice and data segments, while hardware and IT services was the bulk of information technology (IT) spending.

The PC penetration rate in 2004 was 19.16 per 100 people with approximately 4.9 million users in the country. Internet 'dial-up' subscriptions have seen a minimal growth of 1.4% in the third quarter of 2005 to 3.62 million subscriptions. Broadband subscriptions, however, have seen a growth of approximately 71% from 2004 to the third quarter of 2005, with a current total of 430,561 subscriptions. While the number of broadband subscriptions had increased, the penetration rate is 1.64 percent, which is low when compared to other countries such as Singapore and China.

As at the third quarter of 2005, there was a declining trend in the penetration rate of fixed line telecommunication subscriptions by 2 percent from the previous year to 16.5 per 100 inhabitants. However as at the same period, there was a growth in the cellular market by 6 percent to 17 million, representing approximately 65 percent of the total population. A key driver of the mobile sector is the pre-paid segment, making up approximately 75 percent of new subscribers. Due to consolidation efforts by the government, there are currently three cellular service providers in Malaysia; Maxis Communications, Celcom and Digi Communications, although Telekom Malaysia, the national telecommunications company, is the majority shareholder in Celcom.

All three cellular service providers are also internet service providers (ISP), with the inclusion of Jaring and Telekom Malaysia, the national telecommunication company. Telekom Malaysia was the first to implement broadband services in the country and due to the government's aim to increase the broadband penetration rate, both Maxis and Jaring have recently implemented their broadband services. Although there is a growing shift towards broadband infrastructure and internet-related services, other growth segments include health software, security and logistic solutions, wireless technology and e-learning solutions.

3.2 Trends in 2006

The Computing and Multimedia Industry Association of Malaysia forecasts that the information and communication technology industry could experience a 12 percent growth in 2006, as compared to a 10 percent growth in 2005. Outsourcing and shared services are expected to be high growth sectors due to Malaysia's positioning as a shared services hub and the aggressive promotion of Malaysia as a choice destination. It is also predicted that the information systems outsourcing market will grow by 22.5 percent over a five year period. Other sectors such as

systems integration, consulting, retail and distribution are expected to perform inline with the average growth of the industry, between 10 to 15 percent.

The system integration market in Malaysia is expected to increase at a compound annual growth rate (CAGR) of 12.2 percent, due to the great potential in application and infrastructure spending which are expected to happen in the coming years. Network consulting and integration services market will show a CAGR of 13.2 percent for the next five years, seeing potential in areas such as security consulting and implementation, wireless consulting and implementation, network optimisation, operations assessment, convergence service as well as network storage consulting.

In the communication sector, the Malaysian government with the introduction of the MyICMS886 strategy, had identified eight service areas to catalyse and promote eight essential infrastructures within the next five years. The service areas identified are High Speed Broadband, 3G Communication, Mobile TV, Digital Multimedia Broadcasting, Digital Homes, Short Range Communications, VoIP / Internet Telephony and Universal Service Provision. These new services are aimed at generating growth in Content Development, ICT Educational Hub, Digital Multimedia Receivers, Communication Devices, Embedded Components & Devices and Foreign Ventures. Therefore, it can be observed that the private sector led by the government will be focusing on developing Malaysia's capability in the above growth area's.

4.0 MAJOR PROJECTS

4.1 Multimedia Super Corridor (MSC) Flagship Programmes

There are seven MSC flagship application programmes that were created to progress the development of a knowledge-based economy. The roll-out of these programmes are divided into three phases over a 25 year time frame, beginning from 1996 and due to complete in 2020. The first phase was completed in 2003 and the second phase, mainly focusing on increasing the momentum of MSC, promoting comprehensive transfer of technology and R&D, would be completed in 2010. The Multimedia Development Corporation (MDC) is the government agency charged with overseeing the development of these programmes.

The seven flagship programmes are:

- **Electronic Government**
Designed to improve government operations in terms of internal processes and delivery to public and business sectors. Six e-government projects under this initiative are Project Monitoring System, HRM Information Systems, Generic Office Environment, Electronic Procurement, Electronic Delivery Services and Electronic Labour Exchange
- **Multipurpose Card**
The development of a single multipurpose card based on a common platform to prevent the duplication of efforts and investment. This card would integrate four government (national identity, driving licence, immigration and medical information) and two optional applications.
- **Smart School**
The transformation of schools in terms of teaching-learning practices and school management to prepare students for self-assessment and self-directed learning. The initial

implementation was piloted in 87 schools and the government is currently deciding on areas that require further development as well as possible implementation methods. This programme is to be implemented in all 10,000 schools by the year 2010.

- **Telehealth**
A multimedia network linking all health industry players through an integrated healthcare delivery system which would increase the efficiency of healthcare providers. The four projects under this initiative are Teleconsultation, Mass Customised / Personal Health Information and Education, Lifetime Health Plan and Continuing Medical Education.
- **Research & Development Clusters**
Pools corporate resources and creates an environment to promote the development of next-generation multimedia technologies.
- **E-business**
Provides more efficient and better quality services to the community, and encourage businesses and the community to accept electronic business.
- **Technopreneur Development**
To spawn the development and growth of Malaysian small to medium enterprises (SME's) in the ICT and other strategic high technology industries, that would become world-class over time.

4.2 Other Initiatives

Although the MSC Flagship Programmes are major initiatives that the Malaysian government is pursuing, there are a number of other equally important programmes that are currently being developed. The following programmes contribute significantly to the development of a knowledge-based economy:

- **National E-Commerce Framework**
The government is currently developing an e-commerce framework, which will provide strategic direction and guidelines as to the necessary measures, including the development of infrastructure and the capitalising of opportunities, for the implementation of e-commerce nationwide. This framework will in the first instance cover security, taxation and online payment issues.
- **3G Mobile Technology**
Third Generation (3G) mobile technology is another focus area and had commenced implementation in 2005, along with other voice services such as Voice over Internet Protocol (VoIP). The government had issued 3G licences to two major telecommunication service providers, Maxis and TMTouch (owned by Celcom) to undertake development and implementation of 3G technology, which would provide enhanced wireless voice, text and data services using high transfer speeds.
- **Enhanced Telecommunication Services**
Telecommunication operators are also increasing their investment in network upgrades and infrastructure to provide more value-added services and better communication technologies. The main areas of focus are in the mobile, fibre-optic and broadband segments. In addition, the Malaysian Communication and Multimedia Commission (MCMC), which provides regulatory framework and oversees licence grants, is interested in facilitating the

development and implementation of network capabilities with universal access to content and application services.

- **National Broadband Plan**

A working committee has been established under the Ministry of Energy, Water and Communication Malaysia, to implement the national broadband plan. Broadband penetration is low (1.64 percent) and in order to develop a knowledge-based economy, high-speed communication access is a pre-requisite. Therefore, the national broadband strategy aims to achieve a critical mass of 5 percent (1.3million subscribers) by 2006 and 10 percent (2.8million subscribers) by 2008.

5.0 COMPETITIVE ENVIRONMENT

The industry is very competitive as there are major international ICT players operating in Malaysia such as Hewlett-Packard, Microsoft, Oracle, IBM, Del Asia, Sun Microsystems, Intel, Motorola, Sony-Ericsson, Nokia and NTT Communications Corporation. Many of these organisations have established operations offices in Malaysia that provides technical support to their clients. In addition, some of these companies have set up manufacturing facilities or have joint venture arrangements with Malaysian companies.

The main competitors are US, European and Japanese firms, although US firms currently dominate the hardware and software markets. There are also niche market players from other countries such as Korean and Taiwanese firms for the supply of hardware and equipment. In addition, India is increasing its market presence through the development and implementation of specialized software solutions as well as system integration services.

Generally, ICT products in Malaysia are distributed to end-users through value-added resellers or distributors. In certain instances, end-users may purchase ICT products directly from the supplier.

6.0 REGULATORY OVERVIEW

There are currently no import duties or sales tax imposed on computers, components and software products, however, certain products require specific import licenses. A withholding tax is imposed by the government on the fee from consultation services or technical advice rendered in Malaysia by a non-resident company.

Telecommunication equipment and radio apparatus is subjected to import duties ranging from 0 – 20 percent and sales tax ranging from 0 – 10 percent. Certain equipment from these two categories must be type approved prior to being issued an import permit. The approval process comes under the jurisdiction of the Standard and Industrial Research Institute of Malaysia (SIRIM Bhd), the national organization for standardization and quality, and a sample of the equipment must be submitted for the approval process.

Malaysian law's and regulations enacted to regulate activities in cyberspace and intellectual property are:

- Communications & Multimedia Act 1998
(www.msc.com.my/cyberlaws/act_communications.asp)
- Malaysian Communications and Multimedia Commission Act 1998
(www.msc.com.my/cyberlaws/act_malaysiancomm.asp)
- Digital Signature Act 1997
(www.msc.com.my/cyberlaws/act_digital.asp)
- Computer Crimes Act 1997
(www.msc.com.my/cyberlaws/act_computer.asp)
- Telemedicine Act 1997
(www.msc.com.my/cyberlaws/act_telemedicine.asp)
- Optical Disks Act 2000
(www.msc.com.my/cyberlaws/act_optical.asp)
- Copyright Act 1987
(www.msc.com.my/cyberlaws/act_copyright.asp)
- Trade Marks Act 1976
(www.msc.com.my/cyberlaws/act_trademarks.asp)
- Patents Act 1983
(www.msc.com.my/cyberlaws/act_patents.asp)
- Industrial Designs Act 1996
(www.msc.com.my/cyberlaws/act_industrial.asp)
- Layout Designs of Integrated Circuits Act 2000
(www.msc.com.my/cyberlaws/act_layout.asp)
- Geographical Indications Act 2000
(www.msc.com.my/cyberlaws/act_geographical.asp)
- Trade Description Act 1972
(www.msc.com.my/cyberlaws/act_trade.asp)
- Intellectual Property Corporation of Malaysia Act 2002
(www.msc.com.my/cyberlaws/act_intellectual.asp)

7.0 RECOMMENDED STRATEGIES

New Zealand exporters specializing in ICT products or services are encouraged to work with an appropriate local company. This partnership could be in the form of a distributorship / agency agreement, joint venture or strategic alliance. This will provide advantages in securing tenders for local government as well as private sector projects. Local partners would have appropriate marketing and technical support capabilities along with established in-market contacts and distribution facilities.

Additionally, with the government's drive in developing the capability of private sector companies in Malaysia as well as the promotion of products and services to countries in the Middle East and other nations in South East Asia, it provides a suitable avenue for New Zealand companies to establish in-roads into other markets through the venture in Malaysia.

It is worth noting that the Government sees the transfer of technology from a foreign company to its local partner as a vital aspect of any working arrangement – especially for major government projects.

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