

1. Market Background

The Thai ICT market is growing at one of the highest rates in the region. With a population of over 60 million and the penetration rate of mobile and internet continuing to grow, Thailand has become a very attractive market.

Thailand is also becoming increasingly affluent and disposable incomes are growing. This has resulted in increased expenditure on IT products. For example, the average monthly expenditure on mobile services is approximately 2,671 THB per month (NZD 100 dollar) or 20%.

The Internet penetration rate was 12 percent in 2005 and this is expected to grow to 30% this year as a result of lowering of the internet broadband price and infrastructure is improved.

However, Thailand's ICT market faces challenges as it enters a period of liberalisation. The government has set up an independent regulatory body, the National Telecommunications Commission (NTC) to remove regulatory matters from the former government state owned enterprise, TOT and CAT's area of responsibility. NTC is attempting to provide a framework for free and fair competition and has transformed some areas.

1.1 Size and Growth Rate

The following table outlines the Thai ICT market from 2005 to 2008:

Table 1: Thailand ICT market outlook for 2005-2008

Market	Value (Billion Baht)				Average Growth (%)
	2005	2006	2007	2008	2005-2008
Hardware	63	71	80	90	12
Software	41	51	61	77	23
Computer Services	7	8	9	10	15
Communications	310	362	440	557	22
Total ICT Market	421	492	590	734	20

Source: SIPA Thai ICT market research for 2005

The total ICT market was valued at 421 Billion Baht (NZ\$16.8 Billion) in 2005 and is expected to grow at an average of 20% until 2008. Communications is the largest sub sector in the ICT market. Communications consists of telecommunication equipment, mobile voice and non voice services and ISPs.

The top three IT spending verticals are Banking, Manufacturing and Communications & Media.

1.2 Hardware Market Overview

The hardware market has grown by 12 percent between 2005 and 2008. The major market share was PC and peripherals market which accounted for 76% of the total hardware market. The most significant change in the market is the growth of notebooks, LCD monitors and multi function printers.

Thailand's ICT Sector Profile

In 2005 the Personal Digital Assistant (PDA) market was worth of 3,127 million Baht (NZD 125 Million) with large annual growth predicted to continue. The growth reflects the changing Thai consumer behaviour towards using mobility functions to meet consumer needs.

1.3 Software Market Overview

The software market has grown by 23% from 2004 to 2005 account for 41,435 million baht (NZD 1,800 million). Packaged software accounted for 52% and outsourced software 48%. The finance and business sector had the highest software spending percentage of all sector at 22% of the total software market value in 2005 followed by industry and communications sector, 18.3% and government sector, 17%.

1.4 Telecommunication Market Overview

In the past, the Thai telecommunications market was considered to be a natural monopoly with a single state organisation providing these services. TOT and CAT are the regulators of all services. They manage policy making, pricing, investment planning and control the level of telecommunications service supply under the Ministry of Transportation and communication.

To transform the market, the government has established two independent regulatory bodies to promote and create fair and free competition in the telecommunications market. The National Telecommunications Commission (NTC) and the National Broadcasting Television (NBC) were established in 2004. NTC supervises all the telecommunications and communications services including telephone and Internet services. Also the NTC will formulate the National telecommunications plan to define different types of telecommunication services. NTC's role in regulating the market is to set licensing requirements standards, technical specifications, interconnection principles and processes, tariff structure and service fees.

1.5 Internet Market

In 2005, the Thai Internet market was valued at 7.6 Billion Baht (NZ\$ 302 Million), with Internet services being provided by eighteen local Internet service providers.

With the government policy of promoting low cost Internet Broadband for Thai people, the ADSL technology was introduced to the Thai internet market. True Corporation is the Thailand's largest Internet service providers in Thailand. True Corporation Public Company Limited (formally known as Telecom Asia) is the only private fixed line operator quickly implemented an ADSL network on its existing telephone network which was granted a concession from TOT. The number of ADSL ports has dramatically increased. The price for home internet broadband has been as low as 500 Baht/Month (NZD 20/Month) for 256/128Kbps. With huge price reductions, the technology shift to Broadband is spreading rapidly particularly in Bangkok and metropolitan areas. True Corporation now has over 400,000 Broadband subscribers.

1.6 Mobile Market

There are now five mobile companies operating in Thailand. The number of subscribers each has and their market share is outlined below.

Table 2: Thailand Mobile Operators and Market Share

Operators	Market Share 2005	No. of Subscribers 2005
Advanced Info Service (AIS)	57%	14 Million
Total Access Communications (DTAC)	29%	7 Million
True Move	12%	3 Million
Hutchison CAT Wireless Multimedia (Hutch)	1.4%	n/a
Thai Mobile Joint Venture	0.8%	n/a

The top three now control 98 per cent of the market. AIS, the Shin Corporation subsidiary, which operates the largest GSM network, has been the dominant player in the mobile market since the mid-1990s. Its GSM network is currently used by over 50% of the mobile phone users in Thailand.

The second major player is DTAC, which has the Norwegian firm Telenor as its strategic partner, and a 29 per cent share of the market.

The third mobile market entrant is TRUE Move (formally known as TA-Orange). TRUE Move entered the mobile telephony market in 2001 in a joint venture with the European telecom giant Orange, and formed the company TA-Orange. The company now has a 12 per cent market share. True Move is a subsidiary company of True Corporation. True's subsidiary businesses currently include TRUE Online, TRUE Move and TRUE pay TV operator United Broadcasting Corporation (UBC).

Two additional joint ventures are now in operation with code division multiple access (CDMA) based services. The newest market entrant, Hutchison-CAT, came into operation in 2003, and now holds a 1.4 per cent market share. It is a joint venture between CAT and the Hong Kong-based company, Hutchison Whampoa, part of Hong Kong billionaire Li Ka Shing's group of companies and has mobile communications subsidiaries in numerous countries worldwide.

CAT and TOT also launched their joint venture mobile service, Thai Mobile Joint Venture or Thai Mobile in 2002, but the company's market share to date is still less than 1 per cent. Thai Mobile was the first operator to be granted a 3G spectrum license. However NTC later withdrew the license and is reconsidering the right for any operators to operate, on 3G network.

2. Regulatory Overview

The Ministry of Information and Communication technology (MICT) and Ministry of Science and Technology (MOST) are the two government bodies that govern and promote the ICT industry through their agencies in Thailand. MICT govern all IT policy and provides IT advices to other ministries. MOST is also partly involved but mainly focuses on R&D in the ICT industry.

The National Electronics and Computer Technology Centre (NECTEC), is part of MOST which plays an important role in supporting R&D for ICT building national ICT infrastructures.

Thailand's ICT Sector Profile

Software Industry Promotion Agency (SIPA) is under MICT. SIPA is one of the key public organisations to set policy and promote software industry in Thailand especially in the area of animation and digital content.

Government's incentive for foreign Investment in ICT, the Thai government has set up the ICT investment promotion zone, Science Park which gives privileges to foreign investors in ICT as follows:

- Exemption of import tax on machinery
- Corporate income tax exemption for a period of 8 years
- 50 percent reduction of corporate income tax for a period of 5 years from the expiry of 8-year corporate income tax exemption
- Tax reduction for research expenditures at 200%

In Thailand, there is no government restriction for foreign investment in ICT. With the government allowing investors to 100% ownership, the initial investment capital for companies have is minimum of 3 million Baht (NZ\$135,000).

3. Trends and Competitive Environment

3.1 Internet market trends

The Internet penetration rate in Thailand is one of the highest in the region. In Bangkok, the increasing number of Broadband internet subscribers offer opportunities for online applications and content delivery.

The expansion of applications provided over the IP Technology network, will offer opportunities for leveraging new services and applications at a lower cost delivered over Broadband Internet. IP technology allows flexibility and is cost effective for new applications developed, including IPTV, home monitoring and securities applications. In order to reduce the cost of business communications, VPN and VOIP applications are predicted to become more popular.

Wireless Broadband technology is an alternative technology that will capture potential mobile users of PDA phones. This will allow operators to offer high speed Internet access over smart phones together with customised applications.

3.2 Mobile Market Trends

The penetration rate for mobiles in Thailand is expected to reach 70% in year 2008, with the rapid growth rate being one of the highest rates in the region.

Mobile to Mobile non voice services is an emerging new business opportunity for operators allowing them to increase revenue by providing customised products. Top revenue from Non-voice services was through SMS, Calling Melody, GPRS and download services from portals.

Video ring tones are another emerging trend for non-voice services in the future. This service is expected to be a top seller for multimedia service in the next 3 to 4 years.

The emergence of 3G technology will impact on the wireless Internet broadband provided by mobile companies in Thailand. Mobility features with new wireless applications will be one of the key drivers of the market. Mass customisation of wireless applications for mass consumers segment is the area for potential growth.

M-Commerce services in Thailand have mostly been provided to the financial sector. Mobile payment and confirmation are the most common services available. The application for financial transactions will depend on the network infrastructure and security issues.

4. Opportunities for New Zealand Companies

There are potential business opportunities for New Zealand companies in Thailand. However, New Zealand Trade and Enterprise (NZTE) Bangkok believes that the best opportunities are in the following areas:

4.1 Animation and Digital Content

Thailand is entering the global digital content marketplace and has competitive advantage in new pool of affordable talent for animation, games development, digital video production, post-production, web site design, special effects and e-learning services. The government has positioned the country as a leading creative hub in the Asian market. The Software Industry Promotion Agency (SIPA) is working with Massive Software in Thailand to help the local industry with new technology and innovation. New Zealand animation software is well known among the local industry and New Zealand participation is encouraged. Business opportunities for New Zealand companies

- Co-production between New Zealand and Thai companies.
- Thailand offers a world class service at a lower cost. Good post production facilities and talented labor force could enhance New Zealand companies' competitive advantage and Thailand can be an outsourcing partner outside New Zealand.

4.2 Payments Technology

Electronic payments using smart card technology is a new trend in retail business in Thailand, which is growing strongly. The number of convenient store in Bangkok and upcountry has continued to increase. In 2006, 7-Eleven stores are expected to grow significantly and by the year end there will be up to 5,000 stores throughout Thailand. Thai Smart Card (TSC) who is the provider of smart cards for payments at 7-Eleven stores and they are interested in working with New Zealand companies. Opportunities in payments technology include:

- Retail payments
- Petroleum station payments
- Mobile payments and banking
- Loyalty card program

4.3 Health IT

Thailand is one of the leading medical tourism destinations in South East Asian region. The industry is driven by private hospitals particularly in Bangkok and major tourist cities in Thailand. Private hospitals in Thailand have adopted relatively sophisticated technology in order to improve the quality of its service as medical tourism in Thailand is expected to grow strongly in the coming years. The business opportunities in medical tourism for New Zealand companies in Thailand are in the following areas:

- Specialties in specific clinical area, i.e. cosmetic surgery including dental practices
- State-of-the-art technology and medical innovation i.e. Virtual medical technology
- Healthcare Business Solutions, i.e. Hospital portal, relationship management, work flow and document management. Bumrungrad hospital has implemented the hospital information management system to deploy electronic medical records and digital radiology.
- Emergency Services i.e. managing and designing the emergency services

5. Recommendations

NZTE Bangkok can assist New Zealand companies in identifying business opportunities in the ICT industry. It can also assist with finding potential buyers and local partners and visit programmes. In addition, the Bangkok International ICT Expo held each year in August is an excellent way of gaining an overview of the market.