

KSC: The First and Largest ISP Registered in Thailand and Valued at One US\$ Billion

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Abstract- On 7 June 1994, Prof. Dr. Srisakdi Charmonman and Dr. Kanokwan Wongwatanasin founded Internet KSC as the first company registered with the Ministry of Commerce with an explicit purpose of providing Internet services. On 31 October 1994, the Board of Directors of the Communication Authority of Thailand (CAT) approved a joint venture between Internet KSC and CAT. The two co-founders had been successful in making KSC the largest ISP in Thailand. Prof. Srisakdi went for a road show organized by Flemings in New York and convinced the audience that KSC was the first ISP to profitable from day one. KSC was then valued at one billion US\$. The two co-founders wanted to sell KSC but another shareholder sued in court to stop it. While they were fighting in court, about 400 – 500 companies collapsed each month. Finally, KSC was sold to MIH, at much lower amount than one billion US\$.

Keywords- ISP, KSC, Srisakdi Charmonman, Kanokwan Wongwatanasin

1. INTRODUCTION

This paper is taken from the paper presented to Asia Pacific Carrier & ISP Executive Forum in Phuket [1], the paper to Flemings Information Technology Conference' 99 [2],

the paper presented in Korea [3], and the paper for the inauguration of the Graduate School of Internet and eCommerce which Prof. Srisakdi founded and served as the Dean [4]. The Flemings Conference included road shows by Internet companies around the world. Each company sent 3-10 members but KSC sent only Prof. Dr. Srisakdi Charmonman. Prof. Srisakdi was the co-founder, co-owner, and Chairman of the Board of Internet KSC. Internet KSC owned 65% and the Communications Authority of Thailand (CAT), which was a Government Enterprise, owned 35% (given free by Internet KSC to CAT), in KSC Comnet, the operating company of KSC. Dr. Kanokwan Wongwatanasin was the other co-founder of KSC. She was the first graduate of the IT Ph.D. at Assumption University (AU). The Ph.D. program was founded by Prof. Srisakdi who was also Dr. Kanokwan's Ph.D. advisor. Rev. Bro. DR. Prathip Martin Komolmas, the President of AU at that time, approved Prof. Srisakdi's request for AU to be the Incubator of KSC. Air Marshal Dr. Chulit Meesajjee who was the Dean of AU Graduate School of Computer Information Systems, which Prof. Srisakdi established and served as the Chairman of the Board, was appointed by Prof. Srisakdi as the Senior Manager of the Engineering Department of KSC. Dr. Santithorn, who earlier Prof. Srisakdi took to Prague, Czechoslovakia to attend the Internet Society's training, played a key role in KSC Engineering Department. As a result of ISOC training, Dr. Santithorn

became one of the top expert in running the Internet Network Operating Center. Prof. Srisakdi made AU the only Founding Member of ISOC and once elected a member of ISOC Board of Trustees. Dr. Firouz Anaraki, who was the Director of the AU Network Operation Center in the AUnet Center, which Dr. Srisakdi was the Senior Director, also played a key role in KSC. Dr. Firouz is the first graduate of the Ph.D. in eLearning Methodology program which Prof. Srisakdi is the founder. At one point, Bro. Martin approved Prof. Srisakdi's request to send Dr. Firouz abroad to take the exam to become a certified instructor of AU Cisco Router Training Center established by Prof. Srisakdi who was also the Chairman of the Center. Prof. Srisakdi and Dr. Firouz also co-authored a book on the ABC of the Internet [5].

From Bangkok Post on 23 July 2009 [6], KSC was founded in the year 1994 by Prof. Dr. Srisakdi Charmonman and Dr. Kanokwan Wongwatanasin. KSC has played a major role in building Thailand Internet infrastructure. The contract proposed by KSC to CAT, which allowed KSC to become the first ISP in Thailand, was used for all other subsequent ISPs. KSC was sold to South Africa-based MIH Holding in 2001 without the part belonging to CAT. Then in November 2005, True Corp and the former United Broadcasting Corp bought KSC from MIH. Finally in July 2009, True Corp bought the remaining shares of KSC from CAT Telecom.

Bill Gates said that the profit from providing Internet connections could be effectively rounded to zero. Internet was considered to be a gold mine. Everybody was rushing into digging for gold but nobody had found any gold from providing Internet connections. Some of them found gold from providing related services such as advertisement. However, the Internet-related companies were doing very well in the stock market in the United States. For example, in the period of only one month in January 1999, seven Internet-related companies in the US had found their share prices double. In the year of 1998, the average market cap of Internet-related

companies in the USA had increased seven fold. None of those companies have been profitable from the first year of operation. Internet KSC, the first and largest Internet Service Provider (ISP) in Thailand, may be said to be an exception in the sense that KSC has been profitable from the very first year of operation. KSC has been profitable every year. KSC expects to have branches in all 76 provinces of Thailand within a year and expects the number of individual customers to increase to 2.5-4.6 million within 6-7 years. It would not be too difficult to have KSC listed in NASDAQ. This paper presents the history, philosophy, achievement and achievement of KSC until it was sold to MIH.

2. HISTORY OF INTERNET KSC

The Ministry of Commerce of Thailand approved the registration of Internet KSC or Internet Knowledge Service Center Co., Ltd. on June 7, 1994 with the purposes of providing telecommunications services including Internet. Thus, Internet KSC is the first Provider of Internet Services legally registered in Thailand. All the other fifteen ISPs in Thailand were registered in Thailand months or years after Internet KSC.



Figure 1. The Co-founders of Internet KSC

The co-founders of KSC are Prof. Dr. Srisakdi Charmonman and Dr. Kanokwan Wongwatanasin as shown in Figure 1. Prof. Srisakdi is the first Thai citizen to earn Ph.D. in computer-related area from the USA (Georgia Institute of Technology in 1964) and Kanokwan is the first person to earn a Ph.D. in Internet-related area from Thailand (Ph.D. On Encryption

from Assumption University in 1996 under the supervision of Prof. Srisakdi).

A brief history of Internet KSC Group, in chronological order, is given below:

1964. For the first time, a Thai citizen earned a Ph.D. in computer-related area. (Srisakdi Charmonman was awarded Ph.D. in Computations from Georgia Institute of Technology, USA, through a scholarship from the US Government).

1969. Dr. Srisakdi appointed Director of Graduate Studies in Computer Science at the University of Missouri in Columbia, USA. He later became Director of a few research projects sponsored by the US National Science Foundation and got to start experimentation with what is now the Internet. (1969 was the year the Internet was born).

1973. Dr. Srisakdi became the first Thai citizen to be appointed a Full Professor by a university in the USA (Professor of Computing Science at the State University of New York) and continued experimenting with the Internet for education and research.

1978. The National Institute of Development Administration (NIDA) for the first time proposed a candidate for royal command to become a Full Professor at NIDA (Dr. Srisakdi appointed Professor of Applied Statistics).

1981. Asia Computer Magazine in Hong Kong selected Asian Computer Man of the Year for the first time (Dr. Srisakdi became the first Asian Computer Man of the Year).

1987. Internet brought into Thailand for the first time by Asian Institute of Technology (AIT). In his capacity as President of the AIT Alumni Association, Dr. Srisakdi got an Internet account at AIT paid for by Assumption University.

1988. Dr. Srisakdi became the first engineering professor in Thailand to be promoted to the Civil Service Position Classification Level 11 (C-11 equivalent to Permanent Secretary of Ministry or one level above the level of provincial governor).

31 Dec. 93. Assumption University became a Founding Member of Internet Society (International Internet Group based in the USA). Dr. Srisakdi Charmonman and Kanokwan Wongwatanasin became members of the Advisory Council of the Internet Society.

19 April 94. Dr. Srisakdi Charmonman and Kanokwan Wongwatanasin submitted a proposal to the Communications Authority of Thailand (CAT) to request permission to offer Internet services for education and commerce.

30 April 94. Rev.Bro.Dr.Prathip Martin Komolmas, President of Assumption University approved the proposal from Dr. Srisakdi to establish the Internet Knowledge Service Center (KSC). Dr. Srisakdi was appointed Chairman and Kanokwan Wongwatanasin was appointed Director of KSC of Assumption University.

7 June 94. The Thai Ministry of Commerce approved the registration of Internet Knowledge Service Center Co., Ltd. (Internet KSC).

1 Sep 94. H.E. the Minister of University Affairs (Suthep Attakara) appointed Dr. Srisakdi and Kanokwan as Internet Advisors to the Minister.

31 Oct 94. The Board of Directors of the Communications Authority of Thailand gave the approval for CAT to enter into joint venture with Internet KSC Co., Ltd. to established KSC Commercial Internet Co., Ltd. to offer commercial Internet.

21 Dec 94. The Thai Ministry of Commerce approved the registration of KSC Commercial Internet Co., Ltd. Therefore, KSC Commercial Internet Co., Ltd. became the first company in Thailand to be legally registered by the Thai Ministry of Commerce to offer commercial Internet.

19 Jan 95. HRH Princess Maha Chakri Sirindhorn graciously presided over the opening ceremony of the first private-sector International Internet Gateway connecting to the USA at San Jose, CA. at 64 Kbps. The cost of rental of he Gateway was paid for by Internet KSC Co., Ltd.

29 Mar 95. Internet Shopping Mall Co., Ltd. registered with the Ministry of Commerce.

16 Mar 95. HRH Princess Maha Chakri Sirindhorn kindly gave her royal permission for Dr. Srisakdi and associates to present computer and telecommunication equipment to establish an Internet Node in the royal palace (2 Mbps leased lines connected to KSC NOC).

4 Apr 95. KSC launched the first Internet Shopping Mall in Thailand at a seminar organized by the American Chamber of Commerce in Thailand. On the same day, Byrd and Heart, the two popular Thai singers allowed KSC to install their new CD in KSC Internet Shopping Mall where sample song clips from Thai composers can be heard for the first time through the Internet in Thailand.

21 Apr 95. The Office of the Commission for the Management of Road Traffic, Office of the Prime Minister, established a joint project with Assumption University with the support of KSC to use Internet to display traffic conditions in Bangkok. The Committee appointed by OCMRT included Dr. Srisakdi as the Chairman and Dr. Kanokwan as the Secretary.

1 July 95. KSC and Assumption University promoted National Election in Thailand by allowing all political parties and candidates to have homepages free of charge in Thai language. The Prime Minister had his homepage at <chuan.th.org>, where the authority of <th.org>, <th.com>, <th.net>, <thailand.net>, etc. is under Dr. Srisakdi.

27 July 95. Jasmine International PLC signed an agreement with KSC for Jasmine to become joint venture with KSC.

5 Oct 95. KSC signed an agreement with Sun Microsystems from the USA for KSC to be the Sun agent in Thailand (in addition to the existing two) and the only one for Internet purposes.

21 Dec 95. KSC joined Dusit Thani Hotel and AVS to establish the first CyberPub in Thailand. There were 11 Internet terminals with SmartCards installed at the CyberPub.

14 Feb 96. KSC demonstrated the Prime Minister Homepage at the Office of the Prime Minister.

1 Mar 96. KSC joined with Exact to create the first Thai Drama Homepage on the Internet.

18 Mar 96. Sun Service, Au and KSC organized the first Java training in Thailand. Java allowed homepages on WWW to include movement and interaction with viewers.

30 Nov 96. Kanokwan Wongwatanasin earned her Ph.D. from Assumption University with the dissertation on Encryption supervised by Prof. Dr. Srisakdi Charmonman.

4 Jan 97. Prof. Dr. Srisakdi and Dr. Kanokwan were invited to host "Internet IT Talk" at Radio of Thailand FM 97 every Saturday at 8 AM.

10 Mar 97. HRH Princess Maha Chakri Sirindhorn kindly gave her royal permission for Dr. Srisakdi to conduct a short course on Internet for her.

17 Jul 97. KSC introduced International Roaming via GRiC and iPass covering more than 1,500 locations in more than 150 countries.

17 Jul 97. KSC was the first ISP in Thailand to provide 56 Kbps modem in both X2 and Flex standards, starting with 420 ports to be expanded to 4,000 later.

29 Jul 97. KSC signed an agreement with Microsoft to provide radio and television broadcasting through the Internet.

8 Oct 97. KSC started www.thaicast.ksc.net broadcasting 6 radio stations and a TV station.

9 Feb 98. Prof. Dr. Srisakdi and Dr. Kanokwan were appointed by Thailand Chief of Police to be advisors to the Internet Police Project to train about 200 persons per

month to cooperate with the police in crime suppression.

2 April 98. KSC and Assumption University organized Internet training free of charge for the Association of the Deaf in Thailand.

10 Jun 98. The Federation of Thai Industries appointed Prof. Dr. Srisakdi Charmonman to be an Economic Advisor.

19 Jun 98. The Ministry of University Affairs appointed Prof. Dr. Srisakdi Charmonman to be Chairman of the Curriculum Committee on Computer and Telecommunications.

22 Jun 98. H.E. Supachai Panitchpakdi, Deputy Prime Minister and Minister of Commerce, appointed Prof. Dr. Srisakdi Charmonman to be Ecommerce Specialist.

11 Jul 98. KSC and the Department of Industrial Promotion of the Ministry of Industries organized a Seminar on “Internet for Industrial Promotion” attended by over 700 participants at the Ministry of Industries.

13 Jul 98. The Ministry of Commerce appointed Prof. Dr. Srisakdi Charmonman to be the Project Manager for Ecommerce Pilot Project for Export Promotion.

10 Aug 98. Burapha University appointed Prof. Dr. Srisakdi Charmonman to be Chairman of the Search Committee for the Director of Academic Services.

20 Aug 98. KSC announced two new services “KSC Hot Net Delivery” and “KSC EZ Net” at Grand Hyatt Erawan Hotel.

8 Sep 98. KSC introduced a new service “KSC Instant Web Service”.

21 Oct 98. KSC and TV Channel 7 started up the homepage for the TV Channel 7’s programs.

26 Oct 98. KSC signed an agreement with Siam University to give a “turn-key” service for the university.

25 Nov 98. KSC started providing 8 Mbps to the USA.

31 Dec 98. Internet KSC and KSC Commercial Internet made the total profit for the year 1998 of approximately 1 million US\$.

8 Apr 99. KSC and Krung Thai Bank launched “KrungThai – KSC Ecommerce”.

8 Apr 99. KSC started providing 12 Mbps to the USA, becoming the biggest link to USA of all ISPs in Thailand.

June 99. KSC planned to have branches in 45 provinces out of 76 provinces of Thailand and to increase the bandwidth to the US.

3. KSC BASIC PHILOSOPHY

The success of KSC depends on the human resource starting from the co-founders, the directors, the department managers, the section chiefs, and all the other members of the company.

The two co-founders of Internet KSC have background which complements each other effectively to lead KSC to be the only major ISP in the world profitable from the first day of operation. Some of the underlining philosophical points of KSC will be presented in this Section of the paper.

3.1 No Borrowing Unless Completely Necessary.

The first founder of KSC, Dr. Srisakdi has been an academician who has reached the highest rank of “Distinguished Professor”. Although his business experiences include the position of General Manager of Bangkok Data Center Co., Ltd. for 3 years and full-time Advisor to the President of Bangkok Bank for another 3 years, he stated when KSC was started that “KSC should not borrow any money unless absolutely necessary”. At first, that philosophy was not accepted because usually most business establishments have to borrow money from some sources such as local and foreign banks or finance companies. Many Thai companies have borrowed from the United States and got badly bruised when the rate of exchange of about 25 baht per US\$ became about 50 baht per US\$ and later settled to about 37 baht to US\$. Had KSC borrowed from the United States, KSC would have been in bad

shape by now. As a matter of fact, KSC has not borrowed from any source and as of the beginning of 1999, KSC has about 100 million baht cash on hand.

The second co-founder of KSC, Dr. Kanokwan has served as Director of Kanchanaburi Sugar Mill, Director of Thai Sugar Trading, Co., Ltd., and Director of the Trade Association of Sugar Producers. As such, she has tremendous business experience to contribute to the success of KSC. On the academic side, Dr. Kanokwan has also served as Deputy Dean of the Graduate School of Computer and Engineering Management of the Assumption University, and Director of Internet Knowledge Service Center of the Internet Institute of Assumption University.

3.2 Assumption University as Incubator.

At the beginning of KSC, a decision has to be made whether to start by renting a place in a business district or renting a room at the university. From the co-founders' travel to the University of North Carolina in the United States, it was found that many benefits could be obtained from starting at the university rather than in a business district. Rev. Bro. Dr. Prathip Martin Komolmas, the President of Assumption University, agreed to the principles of serving as incubator adopted by the University of North Carolina. He kindly allowed Assumption University to serve as the incubator for Internet KSC. Thus, KSC could rely on students, staff, and faculty members of Assumption University to serve part-time at KSC. As a matter of fact, KSC could mobilize any number of highly qualified manpower from the university to serve KSC customers urgently. As an example, the organizer of Asian Games required 120 homepages designed and implemented within 3 days and no other ISP could do it except KSC.

3.3 Hardworking.

Internet Technology and competitions are very dynamic. The co-founders and other

members of KSC have found that 8 hours a day of working would not be sufficient. As a matter of fact, the co-founders of KSC have been working about 16 hours a day, 7 days a week. Several contacts could be concluded and several important publicities achieved because of the hard work.

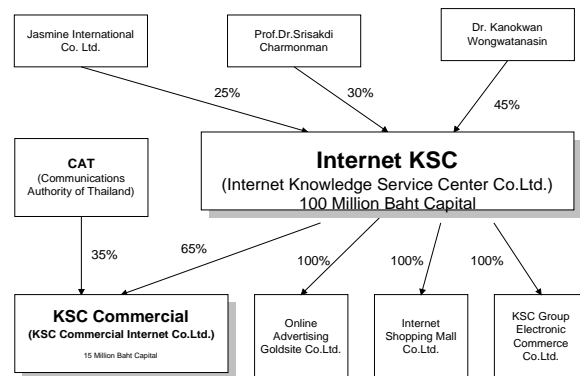


Figure 2. KSC Group of Companies

From the beginning of the establishment of KSC and up until the beginning of 1999, the co-founders hold 75%, as shown in Figure 2, of KSC and can, therefore, make any important decision right away, if necessary and desirable, and then report to the Board of Directors later for ratification.

3.4 Win-Win Cooperation.

In politics and business, neither foe nor friend remains permanent. Your foe will change to be your friend if you let him or her share your benefits. Your friend will change to be your foe if you do not let him share your benefits. Usually, it may be possible through negotiation to arrive at a win-win cooperation. KSC is said to be highly flexible in negotiating with any potential business partners. Even other competing ISPs in Thailand have signed win-win agreement with KSC from time to time.

4. KSC ACHIEVEMENTS

As shown in Figure 2, Internet KSC Co., Ltd. has three shareholders, namely Jasmine International Co., Ltd. with 25%, Prof. Dr. Srisakdi Charmonman with 30% and Dr. Kanokwan Wongwatanasin with 45%. Internet KSC has a registered capital of 100 million baht

(about 2.9 million US\$). In a sense, Internet KSC is a holding company but it is an operating holding company, i.e. it also provides all kinds of services related to Internet such as training, system integration, book publishing, selling computers and telecommunication equipment, as well as serving as sales agent for Internet connections.

Internet KSC owns 65% of KSC Commercial Internet Co., Ltd. which is a joint venture company with the Communications Authority of Thailand (CAT). CAT holds 32% of KSC Commercial without having to pay for it, and 450 CAT employees purchased a total of 3% of KSC Commercial. The initial registered capital of KSC Commercial was only 15 million baht.

Equity investment by strategic and/or financial investor should be done in Internet KSC rather than KSC Commercial.

4.1 KSC with No Debt but 100 Million Baht Cash On Hand.

As earlier stated in Section 3.1, KSC has not borrowed any money or has no debt. As a matter of fact, as of March 1999, KSC Group has over 100 million baht (about 2.9 million US\$) cash on hand from advanced payments by customers who pay 3, 6, 12 months in advance and from other savings.

4.2 Profits of Internet KSC.

For the year ending December 1998, the profits before tax were 19.433 million baht for Internet KSC and 17.718 million baht for KSC Commercial Internet. Thus, the 1998 total profits for KSC Group was $19.433+17.718=37.751$ million baht or about 1.11 million US\$. However, since Internet KSC owns 65% of KSC Commercial, the consolidated profits of Internet KSC is $0.65 \times 17.718 + 19.433 = 30.95$ million baht.

TABLE 1
ACTUAL SALES, PROFITS AND BANDWIDTH OF INTERNET KSC 1995-1998

Transaction	1995	1996	1997	1998	Average
Sales in Baht	15,400,000	91,700,000	141,500,000	180,800,000	-
Profit before Tax in Baht	940,000	10,600,000	6,800,000	30,950,000	-
No. of Individual LAN Customers	20,000	80,000	170,000	195,000	-
No. of Dial-up Individual Customers	5,000	10,000	30,000	60,000	-
Total No. of Individual Customers	25,000	90,000	200,000	255,000	-
Sales per Individual in Bht/Yr	308	509	354	355	382
Profit per Individual in Bht/Yr	19	59	17	73	42
# WebHosting Corporate Customers	10	30	70	200	-
# Leased line Corporate Customers	15	40	100	180	-
Total No. of Corporate Customers	25	70	170	380	-
Sales per Corporate in Bht/Yr	308,000	655,000	416,176	237,895	404,268
Profit per Corporate in Bht/Yr	18,800	75,714	20,000	48,684	40,800
Bandwidth to USA in Mbps	0.5	2	4	8	-
Per individual in bps	10	10	13.3	15.7	12.25
Per corporate in Kbps	10	14.3	11.8	10.5	11.6

Assumptions used in Table 1 are:

- (1) Actual sales are about 40% for individual, 40% for corporate, and 20% for others. However, to arrive at indices for computation, it is assumed that sales and profits are distributed equally to individual type and corporate type of customers.
- (2) Rounded, the average sales per individual customer is 400 Baht/year, and profit 40 Baht/year or 10%.
- (3) Rounded, the average sales per corporate is 400,000 Baht/year, and profit 40,000 Baht/year or 10%.
- (4) Rounded, the average bandwidth to USA is 10 bps per individual, and 10 Kbps per corporate.

As shown in Table 1, the consolidated profits before tax of Internet KSC was about 1 million baht in 1995, 11 million baht in 1996, 7 million baht in 1997, and about 31 million baht in 1998. All figures for 1995, 1996, 1997, and 1998 are actual and have been audited.

The projected profits for Internet KSC is shown in Figure 4, with the profit in the year 2006 of 486 million baht (about 14 million US\$) for the worst case; and 1,650 million baht (about 48.5 million US\$) for the best case. The projection was made by use of a few assumptions as shown below Table 1.

In addition to Internet connections, KSC also provided all kinds of Internet-related services. However, for simplicity, sales and profits per individual customer and per corporate customer were computed and averaged to be used as indices for computation of the projected values for the worst case. With the assumption that the sales and profits were distributed equally to individual type and corporate type of customers, the average sales per individual customer may be rounded to 400 baht/year, and profit 40 baht/year or the profit is 10% of sales. Similarly, the average sales per corporate is 400,000 baht/year and profit 40,000 baht/year or 10%. The average bandwidth to USA is rounded to 10 bps per

individual and 10 kbps per corporate. The average bandwidth figures are rather low and can be explained by the fact that the customers get what they pay for. For example, a student paying only 400 baht/year got to use only 10 bps (twice a week, each time only half an hour and with heavy use of proxies, e.g. 140 Gb proxy farm at the main NOC and proxies for every LAN in every building, often downloading 1-5 a.m. webs to be used the next day). Other users wishing to have better services had to pay higher such as 900 baht/month. Similarly, a corporate paying a low amount got to use less. A corporate wishing to have a high bandwidth dedicated had to pay higher.

The amount of sales per individual customer per year would definitely increase from 400 baht/year to 500 baht/month x 12 = 6,000 baht/year but a conservative assumption of gradual increases to 500 bht, 1,000 bht, 1,500 bht, ... for 1999, 2000, 2001, ... up to 4,000 bht for 2006.

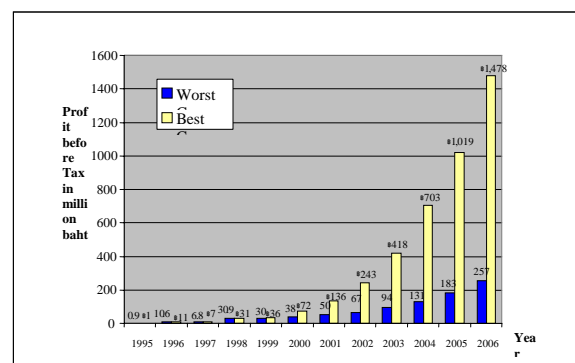


Figure 3. Profits of Internet KSC

Other conservative assumptions were also made. The number of corporate customers is assumed to level off at 4,000 from the year 2005 on. Similarly, the amount of sales per corporate is assumed to level off at 0.525 million baht per year from the year 2004 on.

4.3 Customers of KSC.

Table 2 shows a rough estimate of Internet users in Thailand and KSC. The Thai government has announced that the number of Internet users in Thailand should increase to about 20% of the population in about 7 years i.e. should be 12 million

Internet users by the year 2006 which is the year Thailand has to liberalize telecommunication completely. The number of computers in Thailand in 1999 is about 2 million. Additional 200,000 – 300,000 computers per year could be expected. Thus, by the year 2006, the number of computers in Thailand could be 3-4 million. It is possible that the number of Internet users in Thailand could be 12 million with only 4 million computers, i.e. 3 persons could be using the same computer. Such a ratio is now not uncommon in Thailand. For example, a school with only 50 computers may require all 1,000 students to use the Internet, 30 minutes/day, 2 days/week.

Table 1 shows the individual customers of KSC for 1995-1998. In the year 1998, there were about 195,000 individual users from academic institutions, and about 60,000 individual users who dialed in to KSC from homes and offices. For academic individual users, KSC may provide the computer and

all the telecommunication equipment including the modems. The educational institutes signed contracts with KSC for 3-5 years, collected an amount of money from every student at the beginning of the term and paid 50-75% of that amount to KSC. KSC provided all the technology and management for the Internet system. The actual and projected number of individual customers of KSC are shown as Item 1 of Table 2.

The actual number of corporate customers of KSC for 1995-1998 are shown in Table 1. In 1998, there were 180 corporate customers using leased line to connect to KSC and 200 corporate customers using the web hosting service. The actual and projected numbers of corporate customers of KSC are shown as Item 3 of Table 2.

TABLE 2
ROUGH ESTIMATE OF NUMBER OF INTERNET USERS IN THAILAND AND KSC

		1998		2006	
		Thailand	KSC	Thailand	KSC
1.	Universities	275,000	100,000	1,500,000	450,000
2.	Commercial and Technical Colleges	110,000	53,000	800,000	240,000
3.	Elementary and High Schools	110,000	42,000	800,000	240,000
4.	Individual Users from government, state enterprises, private sectors, etc.	105,000	60,000	8,900,000	2,682,000
	Total	600,000	255,000	12,000,000	3,612,000

A partial list of corporate customers of KSC is shown below:

- Bangkok Metropolitan Administration
- Department of General Education
- Education Science Center
- National Housing Authority of Thailand
- Royal Forestry Department
- Department of Agricultural Extension
- Office of the National Education Committee
- New Energy and Industrial Technology Development Organization
- American Embassy
- International Labour Organization
- Siam Cement Group
- Thai Shell
- K.R. Precision

- Hana Semiconductor
- Circuit Electronic Industries
- Hansol Electronics
- Yokogawa
- Mahidol University
- Ramkhamhaeng University
- Industrial Property Information Center
- Department of Environment Quality Promotion
- Department of Intellectual Property
- Office of the Commission for Road Traffic
- Traffic Control and Command Center
- AIT
- Express Data
- PacLink (Thailand)
- Siam Tripetch
- Krung Thai Bank
- Asahi Komag
- Fujikura
- Gamakatsu
- Honda
- Kawasaki Steel
- Nippon Express
- Takenaka
- Kasembandit University
- Rajabhat Petchburi
- Rajabhat Suansunanta
- International School of Business
- Chuo Senko (Thailand)
- Jasmine International
- NTTI (Thailand)
- New International School
- British American
- Assumption University

- Assumption Sriracha
- Assumption Thonburi
- Assumption Samrong
- Assumption Commercial College
- Klaikangwon Palace School
- Wimol Technical College
- Sriwatana Technical College
- Pattanee Technical College
- Sukhothai Business College
- Etc.

4.4 International Bandwidth of KSC.

International bandwidth was one of the largest expenses of ISP in Thailand. At the end of 1998, the bandwidth was 8 Mbps, and increased to 12 Mbps in April 1999, which made KSC bandwidth to the USA the largest among all the ISPs in Thailand. KSC planed to increase the bandwidth to the USA as needed.

5. THE TRANSFER OF OWNERSHIP OF KSC

In the year 1999-2000, the co-founders, Prof. Srisakdi and Dr. Kanokwan, who together owned 75% of Internet KSC, wanted to sell KSC to international investors, hopefully at one billion US\$ as valued in the US. Jasmine which owned 25% of Internet KSC, as shown in Figure 2, sued the co-founders to block the sales. While they were fighting in court, Boo.com in the UK collapsed in March 2000 [7] and caused the collapse of 400-500 Internet companies per month. Boo.com collapsed because the order increased threefold. Boo.com needed more money to buy raw materials to produce goods for the increased order. The investors re-examined Boo.com spending and found that the top executive was using company money to buy airplane, yacht, summer house, etc. So, the investors refused to invest further, causing the collapse of Boo.com.

Investors in other dot com's examined companies they invested in and found similar situation as Boo.com and so refused to invest further. With 400-500 dot com's collapsed per month, no one wanted to buy any dot com. So, the value of all dot com decreased.

Finally, rather than getting one billion US\$ for KSC if sold at the height of the dot com popularity, Prof. Srisakdi got his part of only about 40 million baht. He was quite satisfied for getting 40 million baht for his brain in founding and running KSC.

6. CONCLUDING REMARKS

Prof. Srisakdi Charmonman and his Ph.D. student, Dr. Kanokwan Wongwatanasin, founded Internet KSC in the year 1994. Prof. Srisakdi convinced Assumption University to serve as the incubator for KSC and so, KSC did not have to spend much money to start the operation. KSC rented a small room on the 11th floor of A-building at a few thousand baht per month. From the first day and everyday afterward, customers went to KSC office and paid 20,000 baht each to use the Internet for one year. Everyday, Prof. Srisakdi would walk laughing to the bank to deposit over half a million baht. Prof. Srisakdi accepted the invitation from Flemings to go for a roadshow in New York. He convinced the investors to value KSC at one billion US\$. His friend from Jusmine, who invested only a small amount in KSC, sued to stop the sales. While they were fighting in court, the dot com collapsed and the case was settled. Finally, KSC was sold and Prof. Srisakdi got about 40 million baht which he was quite satisfied that the amount he got was for his brain.

REFERENCES

1. Charmonman, S. "KSC: The Only Major ISP in the World with Profits from the First Year of Operation". Invited paper presented to Asia Pacific Carrier & ISP Executive Forum, Sheraton Grande Laguna Hotel in Phuket, Thailand, March 10-11, 1999.
2. Charmonman, S. and Wongwatasin, K. "KSC: The Only Major ISP in the World with Profits from Day One". Invited paper presented to Flemings Information Technology Conference' 99, Rihga Royal Hotel, New York City, USA., April 19-20, 1999. This paper is modified from the one presented in New York by taking into account the comments and suggestions from the participants.
3. Sribhadung, P. and Charmonman, S. "Internet Industry in Thailand". Presented at the 1st International Asia-Pacific Telecommunications Forum, ETRI, Taejon, Korea, October 28-29, 1999.
4. Wongwatasin, K. and Charmonman, S. "KSC: A Billion-Baht Entrepreneurial Company from Assumption University". Invited keynote presented to ITEM' 99: The Information Technology and Engineering Management Symposium 1999 to Celebrate the 10th Anniversary of the Graduate School of Information Systems and the Graduate School of Computer and Engineering Management and the Inauguration of the Graduate School of Internet and E-Commerce of Assumption University. Hilton International Hotel, Bangkok, Thailand, November 20, 1999.
5. Charmonman, S. Anaraki, F. and Nalwa-Segal, V. *The ABCs of the Internet*. Assumption University Press. Bangkok, Thailand. 1994. 185 pp.
6. Tortermvasana, K. True Unit Gains Full Rein of KSC. Bangkok Post, 23 July 2009.
7. Wikipedia. Dot-com bubble. En.wikipedia.org/wiki/Dot-com_bubble.