



SINGAPORE - Where **iT** Works

// ANNUAL REPORT 2003/2004 //



Harnessing the Power of **IT** for Our Future

// Imagine what the IT world would be like without the human touch. No one to manage the company servers, no one to use IT in the office, school or home, no one to perform technological trials and improve on existing or new technologies, no one to develop and implement strategies to boost the infocomm sector... Indeed, people are the real driving force behind IT. Without them, it will be difficult or impossible to realise the full potential and benefits of IT. //



.....
An office with
laptops, PDAs
and phones of all
types is just a
room with high-
tech equipment.
.....



.....
An office
brimming with
life and activity
provides a
platform where
creativity and
value through
infocomm are
generated.
.....



SINGAPORE - WHERE IT WORKS

Singapore is a place where IT works seamlessly and efficiently, with people from all walks of life using IT in one way or another. As developer and promoter of the infocomm industry in Singapore, the Infocomm Development Authority of Singapore (IDA) makes connectivity possible and our lives more convenient through the use of IT. From industry collaborations, international cooperations, technology creations and capability developments, the wonders of IT are realised and made possible through people - the developers and users of IT.





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CHAIRMAN'S MESSAGE



2003 was a year marked by many challenges, both in Singapore and in the infocomm industry. Economic uncertainties, threats of terrorism, and SARS have hastened the need for the infocomm industry to join forces with partners to innovate and build capabilities for the long-term.

FOCUS ON CAPABILITIES AND NEW MARKETS

IDA and its partners focused on building capabilities in new growth areas to prepare for renewed confidence and increased infocomm investment in the coming years. As part of its Connected Singapore vision of "Unleashing potential, realising possibilities through Infocomm", IDA has embarked on the following key initiatives:

- + Building Capabilities in New Growth Areas such as grid and utility computing (through the Adaptive Enterprise @ Singapore initiative with HP, and the Grid Innovation Zone @ NUS set up by IDA, IBM, Intel and NUS) and Web Services with the S\$40 million (US\$23.5m) WEAVE programme to spur Web Services developments. The Critical Infocomm Technology Resource Programme (CITREP) received an additional S\$13.5 million (US\$7.9m) boost to create more training opportunities to help infocomm professionals acquire new skills. The National Infocomm Scholarship was launched to develop talent to lead the infocomm industry of the future. The capability building programmes were developed in close partnership with multinational corporations like HP, IBM, Intel Corporation, Microsoft, Sun Microsystems, and local infocomm enterprises.
- + Helping Local Companies Expand their Businesses Overseas through the Overseas Development Programme (ODP) and the Singapore Solutions Centre (SSC) established in Shanghai, China.
- + Positioning Singapore as a Digital Exchange with the development of the Digital Cinema Exchange, which plans to stimulate S\$9 million (US\$5.3m) in industry spending and boost manpower training skills, and the Digital Games Bazaar to promote Singapore as a Digital Games hub.
- + Architecting Cluster-Based Plans to Harness Infocomm in Major Sectors
 - + Manufacturing - Collaborative High-Tech Manufacturing Plan to help the industry save up to S\$700 million (US\$411.8m) a year from increased efficiency, generate additional revenue of S\$2 billion (US\$1.2b) from higher value-added activities, and spur S\$40 million (US\$23.5m) worth of ICT spending.
 - + Fast Moving Consumer Goods - e-Supply Chain Management Ecosystem to promote Singapore as a wholesale and retail e-Business hub.
- + Taking e-Government to the Next Level with the implementation of the e-Government Action Plan II, a S\$1.3 billion (US\$764.7m) programme, to integrate more e-Government services for public access. As at end March 2004, 25 government agencies authenticated users with SingPass for access to 400 e-Services requiring secure user identification, with more than 7.1 million transactions authenticated by SingPass by end April 2004. To date, more than 129 government agencies can trade with over 6,000 suppliers for their procurement needs, generating S\$406 million (US\$238.8m) worth of transactions through GeBIZ between April 2003 and March 2004.
- + Creating an Infocomm-Savvy Population through public education programmes like the e-Celebrations Campaign, the National IT Literacy Programme (NITLP), Great Singapore Surf, and the Connecting the Homes Call for Collaboration. 74 per cent of Singapore households now own one or more personal computers, and almost two-thirds of all households (65 per cent) have Internet access.

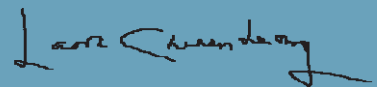
MOVING AHEAD

For the year ahead, there are signs of a steady recovery in worldwide IT spending and an increase in local infocomm industry confidence. According to IDA's Annual Survey on the Infocomm Industry for 2003, the infocomm industry saw a revenue growth of two per cent in 2003, reaching S\$32.83 billion (US\$19.3b). Companies surveyed gave a forecast of positive revenue growth in the region of five to seven per cent in 2004 and seven to nine per cent in 2005. With the positive growth expected, demand for infocomm jobs is expected to increase by three to four per cent over the next two years. International Data Corporation projected that IT spending in Asia Pacific, excluding Japan, will grow 10 per cent to US\$88 billion (S\$149.6b) in 2004, a sharp increase from the 3.4 per cent growth seen in 2003.

Year 2004 promises better times for all of us. To help the industry prepare for the potential growth of the infocomm sector, IDA will:

- + **Work with Industry Partners** to create new ideas and growth opportunities for Singapore. IDA will continue to develop innovation capabilities and seed projects in new growth areas such as grid computing, Web Services, infocomm security and Radio Frequency Identification (RFID). The targets are to attract at least S\$50 million (US\$29.4m) worth of investments, generate some S\$100 million (US\$58.8m) of revenue, and create at least 100 new jobs. IDA will also engage industry visionaries, technology leaders and researchers to develop a long-term perspective technology roadmap highlighting the possible technology landscapes over the next 10 to 20 years. It will serve to provide insights and highlight growth opportunities in key infocomm technologies for possible early adoption by the industry, government as well as the individual.
- + **Architect and Deploy Innovative Solutions** in key economic sectors to generate new businesses for infocomm companies in Singapore and abroad. The government will invest up to S\$50 million (US\$29.4m) over five years to develop an integrated IT platform for the logistics sector, which will make Singapore more competitive as a world class port and logistics hub. Such a platform can potentially bring about long-term cost savings of more than S\$700 million (US\$411.8m), and create additional value-add of nearly S\$4 billion (US\$2.4b) over a 20-year period. To further spur the development of e-Commerce and e-Government transactions, IDA will work with industry partners to develop a national e-Payments hub. IDA will also initiate pilot projects in other key areas e.g. retail, education and healthcare to create new intellectual property and business opportunities, and enhance our competitive position.
- + **Develop Singapore into a Digital Trading Hub.** In the area of digital games for example, IDA will build capabilities in games processing by engaging major publishers and forging government-to-government cooperation frameworks with content-rich countries such as Korea and India. IDA will also build soft and hard infrastructure for the management and distribution of games assets and collaborate with Games Service Providers to accelerate their market presence in the region. In addition, IDA will continue to bring in regional and international games events to develop mindshare and recognition of Singapore's role as a Games Hub.
- + **Enhance Singapore's Position as a Premier Infocomm Hub.** IDA will review its policies and frameworks regularly to ensure relevance and transparency to the market. Some of the initiatives include reviewing the Telecom Competition Code, developing a framework for innovative technologies such as wireless broadband, and establishing a legislative framework to control e-mail spam in Singapore. On the international front, IDA will continue to support "Singapore Inc" in its efforts to land free trade agreements with key ICT markets such as India, Korea and in the near future, China.

Finally, I would like to extend my heartfelt gratitude to our partners - the industry, associations and other agencies - for their active contributions and generous support. I would also like to thank our IDA staff for their dedication and passion in their field of work which resulted in its attainment of the Singapore Quality Class in May 2004. I would like to express my deepest appreciation to all the Directors on the Board for their time and boundless efforts in providing guidance and support to IDA through trying times, and now towards a promising and exciting year ahead.



LAM CHUAN LEONG
Chairman, IDA

BOARD OF DIRECTORS



1 LAM CHUAN LEONG
Chairman
 Second Permanent Secretary
 (Special Projects)
 Ministry of Finance

2 YONG YING-I
Deputy Chairman
 Permanent Secretary
 Ministry of Manpower
 (effective 1 Dec '03)

3 BOON SWAN FOO
 Managing Director
 A*STAR

4 DR CHRISTOPHER CHIA
 Chief Executive Officer
 Media Development
 Authority

5 RUPERT G KEELEY
 President &
 Chief Executive Officer
 Visa International
 Asia Pacific Region

6 LEE SEIU KIN
 Second Solicitor-General
 Attorney-General's
 Chambers

7 LEONG WAI LENG
 Deputy Chief Executive Officer
 Raffles Holdings Limited

8 LIM CHIN HU
 President/
 Chief Executive Officer
 Frontline Technologies
 Corp Ltd
 (effective 1 Dec '03)

9 LIM HOCK CHUAN
 Deputy Secretary
 (Planning, Policy & Operations)
 Ministry of Home Affairs

10 LOW CHECK KIAN
 Chairman
 NewSmith Capital
 Partners (Asia) Pte Ltd

11 ONG PENG TSIN
 President/
 Chief Executive Officer
 Encentuate Pte Ltd
 (not in picture)

12 CHARLES ORMISTON
 Regional Head
 (Greater China &
 South East Asia)
 Bain & Company, Inc

13 SAW KEN WYE
 General Manager
 Network Service Providers
 (Asia Pacific & Japan)
 Microsoft Operations
 Pte Ltd

14 SENG HAN THONG
 Assistant Secretary-General
 National Trades
 Union Congress

15 TAN CHING YEE
 Chief Executive Officer
 Infocomm Development
 Authority of Singapore

16 WONG TOON KING
 Co-Chairman/
 Chief Executive Officer
 Silkroute Holdings Pte Ltd
 (effective 1 Dec '03)

17 WILLIE CHENG
 Chairman
 National Volunteer Centre
 (until 30 Nov '03, not in picture)

18 PROF. ARNOUD DE MEYER
 Deputy Dean
 INSEAD
 (until 30 Nov '03, not in picture)

19 PETER HO
 Permanent Secretary
 Ministry of Defence
 (until 30 Nov '03, not in picture)

20 LESLIE LOH
 Founder/Chairman
 System Access Pte Ltd
 (until 30 Nov '03, not in picture)



MEMBERS OF IDA BOARD SUB-COMMITTEES

DEVELOPMENT SUB-COMMITTEE

SAW KEN WYE
Chairman
(effective 1 Dec '03)

ONG PENG TSIN
(effective 1 Dec '03)

CHARLES ORMISTON

TAN CHING YEE

WONG TOON KING
(effective 1 Dec '03)

WILLIE CHENG
(until 30 Nov '03)

DR CHRISTOPHER CHIA
(until 30 Nov '03)

LESLIE LOH
(until 30 Nov '03)

FINANCE SUB-COMMITTEE

LOW CHECK KIAN
Chairman

RUPERT G KEELEY

LIM HOCK CHUAN

MANPOWER DEVELOPMENT & COMPENSATION SUB-COMMITTEE

YONG YING-I
Chairman
(effective 1 Dec '03)

DR CHRISTOPHER CHIA
(effective 1 Dec '03)

SENG HAN THONG

PROF. ARNOUD DE MEYER
(until 30 Nov '03)

PETER HO
(until 30 Nov '03)

AUDIT SUB-COMMITTEE

LEONG WAI LENG
Chairman

LEE SEIU KIN

LIM CHIN HU
(effective 1 Dec '03)

SAW KEN WYE
(until 30 Nov '03)

STAFF COMMITTEE A

LAM CHUAN LEONG
Chairman

RUPERT G KEELEY

TAN CHING YEE

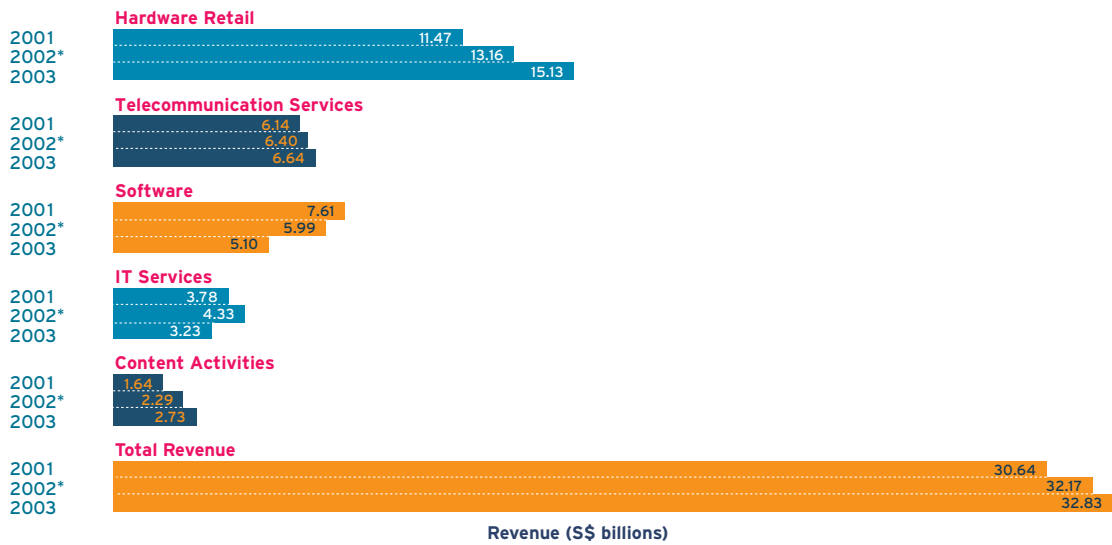
YONG YING-I
(effective 1 Dec '03)

PETER HO
(until 30 Nov '03)

INFOCOMM STATISTICS

TOTAL INFOCOMM INDUSTRY REVENUE BY PRODUCTS & SERVICES (2001-2003)

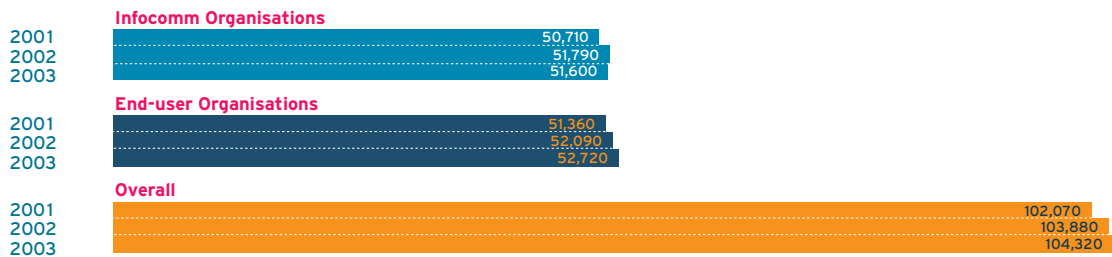
(Source: Annual Survey on Infocomm Industry for 2003)



* There was a re-classification of product from software to hardware by a major player.

NUMBER OF EMPLOYED INFOCOMM MANPOWER (2001-2003)

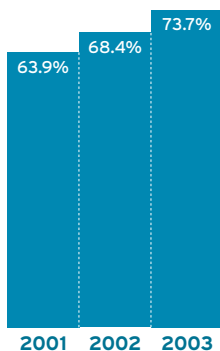
(Source: Annual Survey on Infocomm Manpower for 2003)



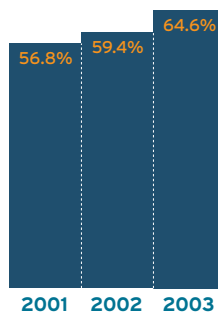
INFOCOMM USAGE IN SINGAPORE HOUSEHOLDS (2001-2003)

(Source: Annual Survey on Infocomm Usage in Households and by Individuals for 2003)

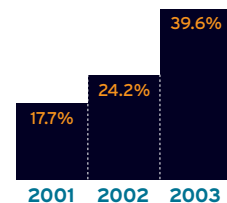
Home Computer Ownership



Home Internet Access

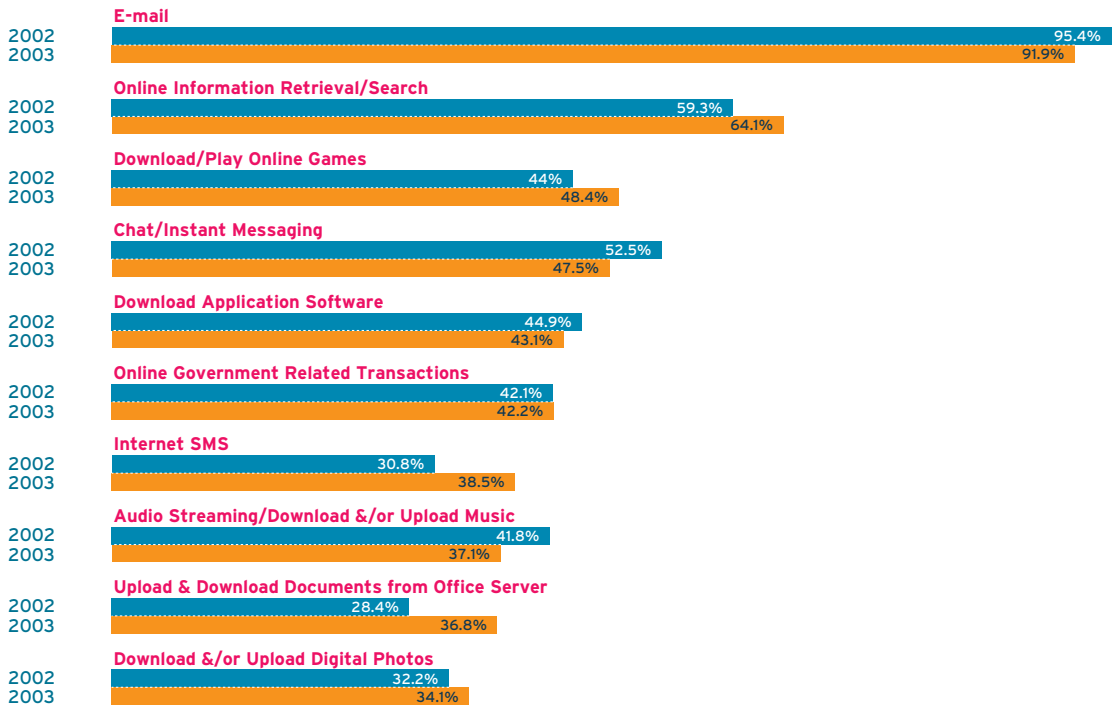


Home Broadband Access



USAGE OF INTERNET APPLICATIONS AND SERVICES BY USERS AGED 15 YEARS AND ABOVE

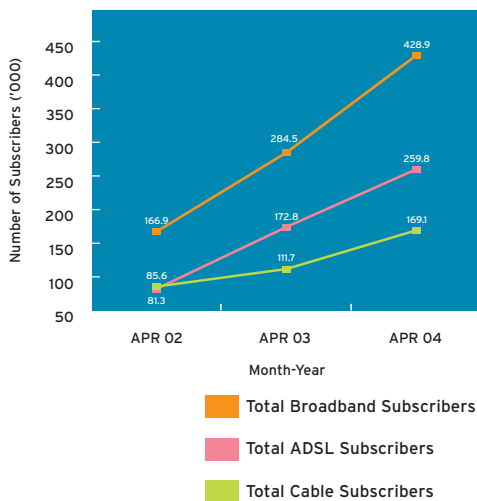
(Source: Annual Survey on Infocomm Usage in Households and by Individuals for 2003)



Base: Total Internet users aged 15 years and above (2002 - 1,374,000 and 2003 - 1,463,370)

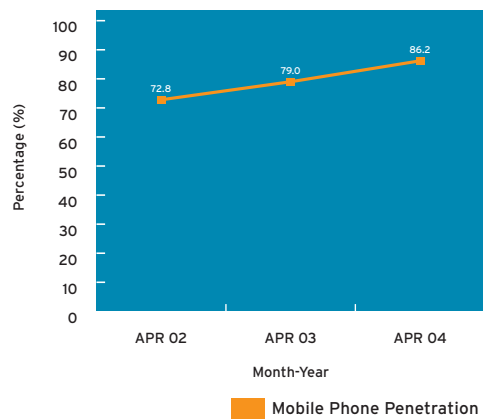
NUMBER OF BROADBAND SUBSCRIBERS (2002-2004)

(Source: www.ida.gov.sg)



MOBILE PHONE PENETRATION (2002-2004)

(Source: www.ida.gov.sg)



KEY HIGHLIGHTS IN FY2003

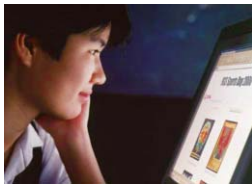
(1 APRIL 2003 - 31 MARCH 2004)

April
2003

IDA Announced Increased Broadband and Wireless Usage Rates

IDA revealed, through its annual Survey on Broadband and Wireless Usage in Singapore 2002, that Singapore's number of broadband users has increased to 1.24 million, a 30 per cent increase from its 950,000 user-base in 2001.

: 15 Apr



May
2003

Singapore and USA Signed Free Trade Agreement and Established Joint e-Commerce Strategy

Singapore and the US signed a Free Trade Agreement and issued a Joint Statement on Electronic Commerce to maintain a global environment for electronic commerce that is free from barriers to its growth.

: 6 May

IDA Introduced WEAVE Programme for Web Services

IDA introduced the WEAVE (Web Services Add Value to Enterprises) programme which aims to drive S\$80 million (US\$47.1m) industry spending in the development of Web Services, and increase business adoption of Web Services from eight to 20 per cent over the next three years.

: 21 May



June
2003

IDA and Korean Systems Integrator LG CNS Sealed Partnership Deal

IDA and LG CNS signed a partnership deal to provide business and solutions development opportunities for Singapore infocomm enterprises in Korea, Singapore and beyond. LG CNS is IDA's first Korean infocomm Local Industry Upgrading Programme (iLIUP) and Overseas Development Programme (ODP) partner.

: 3 June



IDA and Sun Joined Forces to Form ODP

IDA and Sun Microsystems launched the IDA-Sun ODP, an integral component of the Java TONE initiative, to boost the presence of local Java developers in markets outside of Singapore.

: 10 June



IDA Mandated Mobile Number Portability as a Free Service

IDA announced that from 1 August 2003, mobile operators will provide mobile number portability as a free service, to give consumers more flexibility when choosing the mobile phone services and products that best suit their needs.

: 21 June



July
2003

Launch of Security and Trust Month

The Security and Trust Month was launched to educate consumers and businesses on how to protect themselves on the Internet. It was the first of four thematic months of e-Celebrations 2003, an annual campaign to promote an e-Lifestyle.

: 4 July



Singapore Boosted e-Government Services with eGAP II

DPM Lee Hsien Loong launched the e-Government Action Plan II (eGAP II), a S\$1.3 billion (US\$764.7m) initiative to transform the public sector into a networked government which delivers accessible, integrated and value-adding e-Services to Singaporeans.

: 15 July



August
2003

IDA, SPRING and SANC Collaborated on e-SCM Ecosystem for Retail/FMCG

IDA, SPRING Singapore and Singapore Article Number Council (SANC) embarked on a two-year project to build an e-Supply Chain Management Ecosystem for the Retail/Fast Moving Consumer Goods (FMCG) industry. The project promises to enhance Singapore's position as an e-Business hub for the wholesale and retail industry.

: 21 Aug



September
2003

Five Telecom Operators Joined IDA-Intel Wireless Initiative

IDA announced that five Asian telecom operators - China Mobile (China), MobileOne (Singapore), PCCW (Hong Kong), SingTel and StarHub (Singapore) have joined the IDA-Intel Wireless Hotspots and Network Interworking Initiative.

: 15 Sept

Singapore Hosted the Third ASEAN TELMIN

Singapore played host to the Third ASEAN Telecommunications and IT Ministers Meeting (3rd ASEAN TELMIN), themed "ICT: Building a connected and vibrant ASEAN Economic Community."

: 18 Sept



SingTel's RIO Remain Valid

IDA declared that SingTel's Reference Interconnection Offer (RIO) would remain valid for another three years to ensure seamless interconnectivity among operators, and to facilitate new entrants into the market.

: 26 Sept

IDA to Co-Chair OASIS for Web Services

Singapore is the first Asian country to chair a global technical committee of the Organization for the Advancement of Structured Information Standards (OASIS). Led by IDA, the OASIS Framework for Web Services Implementation (FWSI) Technical Committee will develop global Web Services implementation standards.
: 29 Sept

October 2003

IDA Reviewed Revisions to Telecom Competition Code

IDA conducted its first triennial review of the Telecom Competition Code to ensure its relevance in today's market environment. The proposed revisions would serve to enhance competition in the telecom market.
: 7 Oct

Singapore and Jordan Signed Cooperation Agreement

Singapore and Jordan signed an agreement to promote cooperation in e-Government and other infocomm technology areas, and to spur infocomm technology trade and investments in both countries.
: 14 Oct

IDA and Microsoft Launched Backpack.NET Initiative

IDA and Microsoft Singapore launched the Backpack.NET initiative, to drive the testing, development, research and showcasing of innovative infocomm technology usage in the education sector.
: 25 Oct



IDA Announced Completion of Connecting the Home Call for Collaboration

IDA's Connecting the Home Call for Collaboration developed 35 new solutions more than six months ahead of schedule.
: 29 Oct



November 2003

IDA Pumped In Additional Funds for Infocomm Training

IDA injected an additional S\$13.5 million (US\$7.9m) to encourage specialised infocomm skills training in Singapore.
: 14 Nov



IDA and MDA Collaborated on Digital Cinema Exchange

IDA and Media Development Authority (MDA) announced their collaboration to develop the Digital Cinema industry in Singapore. IDA's efforts in building capabilities and capacity in processing, management and distribution of digital content complements MDA's efforts in nurturing content development.
: 19 Nov



December 2003

IDA Introduced New Measures to Enhance LLC Market Competition

IDA introduced regulatory measures to lower Singapore's Local Leased Circuits (LLC) market entry barriers, encourage operators to build infrastructure, and bring about lower telecom costs to businesses and end-users in Singapore.
: 16 Dec

January 2004

IDA Issued Mobile Numbers with Prefix '8'

IDA announced that it will issue mobile phone numbers with the prefix '8' by end March 2004, to prepare for continued growth in the mobile phone sector, resulting in the creation of 10 million new numbers which will be distributed to local mobile phone operators.
: 8 Jan

February 2004

IDA Briefed Infocomm Industry on Singapore Government IT Contracts in FY2004

IDA announced that about S\$700 million (US\$411.8m) worth of IT contracts will be awarded by the public sector agencies in 2004. Some key areas of focus for the government include central government IT infrastructure, infocomm security, and business continuity planning.
: 4 Feb

IDA Encouraged Wireless Broadband Trials and Commercial Deployments

IDA allocated dedicated spectrum bands to encourage more trials and commercial deployments of wireless broadband in Singapore.
: 23 Feb

March 2004

IDA and HP Launched Adaptive Enterprise @ Singapore Initiative

IDA and HP launched the three-year Adaptive Enterprise @ Singapore Initiative, a S\$22 million (US\$12.9m) collaboration to develop Singapore's capabilities in grid and utility computing.
: 23 Mar



IDA Hosted Games Bazaar

IDA launched the Games Bazaar, a regional hosting platform that allows online games companies, publishers and distributors to deploy their game titles without facing time-consuming and high initial capital costs.
: 24 Mar




IDA Launched Collaborative High-Tech Manufacturing Plan

IDA launched the Collaborative High-Tech Manufacturing Plan, which will save the high-tech manufacturing industry up to S\$700 million (US\$411.8m) a year, generate additional revenue of S\$2 billion (US\$1.2b) and S\$40 million (US\$23.5m) worth of infocomm technology spending.
: 30 Mar





.....
A classroom with
tablet PCs and
printers holds
the promise of
learning and
progress in
the IT world.
.....

A photograph of a modern classroom where several students in white uniforms are seated at long, light-colored desks. They are all focused on using tablets or laptops. The lighting is bright and even, highlighting the students' concentration. In the foreground, a student is seen from the side, holding a tablet and using a stylus. Other students are visible in the background, some looking at their devices and others writing. The overall atmosphere is one of active learning and technological integration.

.....
A classroom
that sparks off
lively student
exchanges through
technology
translates the
vision of IT
innovation into a
vibrant reality.
.....

Making **IT**
Work Through

CONNECTED
SINGAPORE
STRATEGIES

_ INFOCOMM
DEVELOPMENTS
IN FY2003



The Infocomm Development Authority of Singapore (IDA) plays an active role in promoting and developing info-communications in Singapore, with the aim of establishing Singapore as a premier infocomm capital. As a promoter and developer of the infocomm sector, IDA collaborates with the industry to drive growth in new infocomm ventures; boost the competitiveness of key economic sectors through infocomm; and implement programmes to develop an infocomm-savvy society and workforce.

In March 2003, IDA unveiled its infocomm vision for Singapore with the “Connected Singapore: Unleashing potential, realising possibilities through Infocomm” blueprint. In the past year, IDA has implemented several initiatives to create new demand and help infocomm companies seize market opportunities.

**NEW GROWTH AREAS,
NEW PARTNERSHIPS**

IDA, through its Engine of Growth strategy, aims to grow new economic activities and create infocomm jobs, by embarking on new ventures, developing technology innovations, and expanding access to overseas markets. In 2003, IDA kick-started specific ventures that offer high potential growth in Singapore's infocomm sector:

**Wireless Everywhere
IDA-Intel Wireless Hotspots &
Network Interworking Initiative**

In March 2003, IDA and Intel Corporation collaborated to address the technical and business challenges of ensuring seamless connectivity between fixed and wireless worlds. The IDA-led Wireless Hotspots & Network Interworking Initiative is the first of its kind to engage the participation of operators and vendors from across Asia Pacific, and even beyond. By February 2004, 10 communications companies have joined the Initiative including ANTI Labs (Singapore), China Mobile (China), Funk Software (USA), Gemtek Systems (Taiwan), Huawei Technologies (China), MobileOne (Singapore), PCCW (Hong Kong), SingTel and StarHub (Singapore) and Transat (USA).

Growing Number of Wireless Hotspots in Singapore

According to IDC, there were 25,000 subscribers to public Wireless Local Area Network (WLAN) hotspot services in Singapore at end 2003. This number is projected to grow to 45,000 by the end of 2004. To date, local operators such as SingTel and StarHub maintain more than 600 public WLAN hotspots in Singapore. Supported by IDA, local operators are making WLAN roaming easier and more convenient for users by extending their WLAN coverage with the addition of more hotspots and through roaming agreements with other operators. McDonald's recently announced Wi-Fi availability across 125 of its outlets nationwide, thereby enhancing its customers' dining experience while visitors to the public libraries under the National Library Board can enjoy Wi-Fi roaming using their existing accounts.

Setting the Pace for Web Services Adoption

According to IDC, revenue for global Web Services software, IT services and hardware will reach US\$34 billion (S\$57.8b) by 2007. Spearheaded by IDA, Singapore's

high level of local and international connectivity, our experience and willingness to embrace new technologies and the presence of numerous foreign and local infocomm companies form a strong foundation for developing and adopting Web Services.

Web Services Add Value to Enterprises (WEAVE) Programme

In May 2003, IDA introduced the S\$40 million (US\$23.5m) WEAVE programme to spur Singapore's Web Services developments, and to drive S\$80 million (US\$47.1m) industry spending over the next three years. WEAVE targets to increase business adoption of Web Services from eight per cent to 20 per cent, and train 600 professionals in Web Services technologies and developments.

Since the launch of WEAVE, 45 companies have embarked on 26 Web Services projects, in diverse industries such as lifestyle and entertainment, banking and insurance, high-tech manufacturing, logistics, retail and distribution as well as healthcare. A total of S\$32.9 million (US\$19.4m) has been jointly invested by the industry



Enjoying wireless access at one of the many coffee joints in Singapore

and IDA in the 26 projects. The companies expect to commercialise their solutions to generate S\$125 million (US\$73.5m) in infocomm revenue over the next two years. There are now more than 1,000 professionals who have acquired Web Services skills and knowledge. Of these, some 269 professionals have already been certified.

Setting Global Standards - OASIS Framework for Web Services Implementation

From September 2003, IDA and the Singapore Institute of Manufacturing Technology (SIMTech) have taken the lead to define a Framework for Web Services Implementation (FWSI) technical committee for the Organization for the Advancement of Structured Information Standards (OASIS). Led by IDA, Singapore is the first country in Asia to partner with OASIS to develop global standards for accelerating Web Services implementations in companies. The goal is to generate S\$36 million (US\$21.2m) in revenue over the next two years.

Developing Grid and Utility Computing

IDA-HP's Adaptive Enterprise @ Singapore

On 23 March 2004, IDA and HP launched the three-year Adaptive Enterprise @ Singapore Initiative, a S\$22 million (US\$12.9m) collaboration to develop Singapore's capabilities in grid and utility computing. The initiative focuses on research and development, vertical clusters testbed, and enterprise and manpower developments. Singapore will become the first Asia Pacific node in the Global Operational Grid, which is being built by a worldwide consortium of partners including CERN (European Organisation for Nuclear Research) and HP Labs.

Grid Innovation Zone @ NUS

Supported by IDA, IBM, Intel and NUS jointly invested S\$8 million (US\$4.7m) to form a grid computing competency centre, Grid Innovation Centre at NUS (GIZ@NUS). The centre aims to help Singapore businesses stay competitive by leveraging the benefits of grid computing technologies to improve operational efficiency and enhance productivity.



Top:
IDA Chief Executive Officer Tan Ching Yee and HP South East Asia/Singapore Vice President and Managing Director Tan Choon Seng at the launch of Adaptive Enterprise @ Singapore

Bottom:
Expanding knowledge and expertise on grid and utility computing through R&D



Adaptive Enterprise @ Singapore is an evolving collaboration HP has with IDA. IDA is considered a role model for how visionary and strategic governments can work with the industry to develop new growth engines. We are committed to working with IDA to extend the benefits of utility computing and grid technology to Singapore. Together with IDA, we will continue to invest in manpower and technology capabilities and to continually equip our local infocomm enterprises and professionals with new skills and expertise in this field.

Mr Tan Choon Seng
Vice President and Managing Director
Hewlett-Packard South East Asia/Singapore

Expanding Markets and Opportunities by Venturing Overseas Overseas Development Programme (ODP)

In March 2003, IDA launched the ODP to prepare local infocomm enterprises for global competition by boosting their capabilities and enhancing their overseas market positions.

- + **IDA-Sun Microsystems ODP** was launched in June 2003 to boost the presence of local Java developers in overseas markets. The IDA-Sun Microsystems ODP will help 20 companies achieve up to S\$20 million (US\$11.8m) in export revenue over the next five years. The first five local participants are Ecquaria Technologies, novaSPRINT, Peridot Health Systems, Stratech Systems and System Access.
- + **IDA-LG CNS ODP** was announced on 3 June 2003. Korean Systems Integrator LG CNS and local companies will jointly develop, adapt and deploy infocomm

solutions for Singapore and overseas markets. Local infocomm enterprises will also leverage LG CNS' networks to accelerate their go-to-market efforts and increase their overseas presence.

- + **IDA-Microsoft ODP**, one of the initiatives under the IDA-Microsoft's .NETMySingapore collaboration, was launched in September 2003. 10 local companies will leverage Microsoft's global networks and resources, to accelerate their overseas market penetration.
- + **IDA-System Access ODP** was launched in March 2004. System Access, the first local leader company in IDA's ODP, will lead a group of local financial services companies - BCS Information Systems, Comex, Fairex, FOCUS5.NET to break into the European, Middle Eastern and African markets. The aim is to generate over S\$20 million (US\$11.8m) in export revenue over the next two years.
- + **IDA-IPACS ODP** was launched in April 2004 in conjunction with the launch of the Singapore Solutions Centre. IPACS Computer Services will lead a group of local financial services companies - AiT, Fairex, FOCUS5.Net and System Access - to penetrate the Greater China market. The aim is to generate over S\$15 million (US\$8.8m) in export revenue over the next two years.
- + **IDA-Singapore Computer Systems (SCS) ODP** was launched in April 2004 in conjunction with the launch of the Singapore Solutions Centre. SCS will lead a group of local healthcare services companies - EGIS Healthcare Technologies, MediMedia, SQL View and Sentient Health - to break into the Greater China market. The aim is to generate over S\$10 million (US\$5.9m) in export revenue over the next two years.



IDA's ODP helped System Access and our cluster members market our products and services overseas. We've successfully reached out to wider geographical markets with lesser upfront investments and broadened our market coverage by leveraging each other's distribution channels. IDA has been instrumental in facilitating the clustering of relevant local companies under the ODP. The ODP supports and nurtures the growth of local companies, creates more jobs, and ultimately, boosts Singapore's economy.

Mr Leslie Loh
Chairman & Chief Executive Officer
System Access

Singapore Solutions Centre (SSC)

In April 2004, IDA and Singapore Infocomm Technology Federation (SiTF) set up the SSC in Shanghai, a one-stop centre for China companies and agencies to learn more about Singapore's infocomm technologies, products and services. The SSC, the first of its kind that Singapore has established overseas, will house a permanent interactive "Solutions Showcase" featuring solutions from clusters of Singapore companies in the transport, logistics, financial services and healthcare sectors. The SSC also showcases technologies from well-known Singapore companies

like AXS InfoComm, Creative Technology and ST LogiTrack.

To date, there are 16 SSC members, which are led by cluster leaders such as IPACS, NCS Yu Bo, Singapore Computer Systems and Stratech Systems. Cluster leader Singapore Computer Systems and its member, EGIS Healthcare Technologies have already jointly clinched a S\$2 million (US\$1.2m) contract to help the Beijing Tongren Hospital deploy a fully integrated hospital information and management system for its new hospital wing.



Top: Key solutions and technologies from Singapore companies are showcased at the SSC

Bottom: Minister for Information, Communications and the Arts Lee Boon Yang (second from left), at the opening ceremony of the SSC, flanked by (from left) IDA Chairman Lam Chuan Leong and Deputy Director-General of the Shanghai Informatisation Commission Fu Wenbiao



IDA and SiTF decided to work together to break into the China market, and make a name for our "Made-in-Singapore" infocomm products. We want to help our local companies acquire a larger customer base through their ventures into China, and with targets to generate at least S\$37 million (US\$21.8m) worth of transactions in three years.

Mr Stephen Lim
1st Vice Chairman
SiTF

SINGAPORE IN THE DIGITAL WORLD

Through its Digital Exchange strategy, IDA plans to establish Singapore as the regional and global hub for managing, processing and distributing digital content like digital cinema, online games, video and music. The Digital Exchange leverages Singapore's excellent infrastructure and pro-business environment to develop an integrated infrastructure for digital production, management, localisation, archival and distribution. Singapore was ranked first in Asia for Intellectual Property Rights Protection by the Political & Economic Risk Consultancy (PERC) in 2004 and Global Corruption Report 2003, making it an excellent location for companies to securely store and distribute digital content.

In 2003, key digital initiatives included:

Realising the Digital Exchange Vision through Digital Cinema Advancements

In November 2003, IDA, together with Media Development Authority (MDA), solidified Singapore's position as an early-mover in the digital space. IDA's Digital Cinema initiative enables Singapore to manage, process, distribute and

exhibit movies and other forms of digital content in Asia Pacific. This move will also generate greater business opportunities and potentially create 5,000 infocomm jobs over the next three years.

World's First 2K Digital Cinema

Supported by IDA, Eng Wah Organization launched the world's first 2K digital cinema deployment in a five-screen multiplex theatre in March 2004. The five digital cinema screens are the first of 20 digital cinemas and one outdoor digital screen that will be installed in Singapore by 2004. This exciting first step will stimulate S\$9 million (US\$5.3m) in industry spending and generate increased demand for equipment purchase, supporting services, and manpower development programmes. According to Ms Goh Min Yen, Managing Director, Eng Wah Organization: "The impact of efficiencies and savings from Digital Cinema to our cinema operations, on top of the enhanced cinema experience, will be significant. We are proud to partner IDA and the MDA on this far-sighted initiative, as the value-add to the media industry and the opportunities to create

knowledge- and technology-driven niche industries in Singapore will be immense."

Delivering Cutting-Edge Digital Creations through Digital Games Exchange

Singapore Games Bazaar

IDA, with HP and SingTel, jointly launched the Games Bazaar in March 2004 to encourage regional digital games service providers to host their online games in Singapore. Over the next two years, IDA, HP and SingTel, will help companies defray up to 80 per cent of the hosting costs during their first six months of signing up with the Games Bazaar.

Games Developers Conference (GDC)

In March 2004, IDA led a local delegation, comprising Mikoishi, Pacific Wireless Solutions, SingTel and Teckwah, to participate in the GDC in San Jose, USA. Mr Edwin Low, Sales & Marketing Director, Pacific Wireless Solutions said: "Without IDA's support, I believe it will be difficult for many smaller companies to look for opportunities in other more distant markets."



Top: Visitors at the Games Bazaar in Singapore

Left: Eng Wah Organization - a key player in digital cinema advancements

HARNESSING INFOCOMM FOR GOVERNMENT AND BUSINESSES

IDA's Agent for Change strategy makes IT work for businesses and government agencies through the use of infocomm to achieve higher efficiency, effectiveness and customer satisfaction. In 2003, IDA worked closely with relevant agencies and industry partners to initiate various programmes:

Enhancing e-Government Services

IDA helps the Singapore government transform the way it delivers services to the public through varied infocomm strategies and technologies, while reducing operating costs and improving service quality.

e-Government Action Plan II (eGAP II)

The S\$1.3 billion (US\$764.7m) eGAP II, announced in July 2003, is a three-year plan, which aims to create seamless integration between services and agencies to improve end-user experience. eGAP II targets to achieve three distinct outcomes:

+ Delighted Customers

IDA plans to improve the e-Service experience and encourage greater usage of government e-Services by individual and business users.

+ Connected Citizens

IDA plans to exploit infocomm technologies to allow Singaporeans, in Singapore and abroad, to participate in policy-making and review processes by explaining public policies and their rationale online, and provide another channel for public feedback on policy formulation and review.

+ A Networked Government

IDA aims to use infocomm technologies as a key enabler to transcend government agency boundaries to deliver value-added, integrated and responsive services to individuals and business.

As the developer and manager of eGAP II, IDA hopes to realise the "Many Agencies, One Government" vision with different agencies working seamlessly together to deliver consistently excellent service

levels to Singapore's citizens and customers. As at end March 2004, five new integrated e-Services have been implemented including the Public Service Online Consultation Portal; the Singapore Education Portal for Foreigners; the Integrated Business Incentives (Phase I), the One-Stop Government Payment website, and Online Application System for Integrated Services (OASIS), a seamless one-stop, end-to-end business registration and licence application system.



The eCitizen portal - the gateway to all government services



The following five e-Services, available via the eCitizen portal, garnered the most hits (total of 1.25 million) from January to March 2004:

- + ERS Encashment
- + e-Filing of Income Tax
- + Enquiry and Payment of URA Fines
- + Registration for National Services
- + Overseas Trip Notification for NS Men

Other government websites received a total of 77 million hits during this three-month period.

Singapore Personal Access (SingPass)

Launched on 1 March 2003, SingPass was developed by the Central Provident Fund (CPF) Board, in collaboration with IDA and Ministry of Finance (MOF). SingPass establishes a nation-wide personal authentication framework for e-Services, making it more convenient and easier for users to access government e-Services and transact online with the government. As at end March 2004, 25 government agencies authenticated users with SingPass for access to 400 e-Services requiring secure user identification. More than 7.1 million transactions have been authenticated by SingPass by end April 2004.

Government Electronic Business (GeBIZ)

Developed by IDA, GeBiz is an integrated portal for suppliers to interact with the government via a web-based online procurement system. As at 31 May 2004, there were 129 government agencies using GeBIZ for their procurement needs, and at least 6,218 companies supplying goods and services to the government. GeBIZ has generated over S\$406 million (US\$238.8m) worth of procurement transactions between April 2003 and March 2004.



e-Government is all about the transformation of the Public Service to better serve Singapore in an increasingly globalised and digital economy. Online government information and services provide citizens and businesses with increased convenience. It gives public agencies new channels to engage the public in the policy-making process. It also challenges government agencies to rethink the way they offer services to their customers and engage the ICT industry as partners in innovation.

Ms Goh Soon Poh
Deputy Secretary (Administration)
Ministry of Finance

Helping Business Clusters Boost Competitiveness

Technological developments have revolutionised the way we conduct business. The use of mobiles, PDAs, e-mail, Internet, sales productivity tools and supply chain systems are enabling tools to help businesses meet the needs of their customers quickly and cost-effectively.

Collaborative High-Tech Manufacturing Plan

In March 2004, IDA launched the Collaborative High-Tech Manufacturing Plan (the Plan) to help high-tech manufacturers in Singapore utilise infocomm technologies to link up their supply chains from end to end so as to compete more effectively in the worldwide marketplace. The Plan aims to build, within five years, 10 infocomm-enabled, integrated supply chains and expects to save the high-tech manufacturing industry up to S\$700 million (US\$411.8m) a year from higher efficiency. It also hopes to generate additional revenue of S\$2 billion (US\$1.2b) and spur at least S\$40 million (US\$23.5m) worth of infocomm technology spending. AEM-Evertech, HP, Maxtor, Seagate and Venture Corporation are some of the companies which IDA is working with to develop the 10 supply chains.

High-tech manufacturers in Singapore are also encouraged to adopt RosettaNet, an open, e-Business standard to link up their supply chains. IDA has co-funded RosettaNet adoption efforts by pioneering companies in Singapore. Currently, more than 100 companies in Singapore use the RosettaNet partner interface processes (PIPs) to automate mature business processes like procurement, inventory management and shipment notice. IDA will also facilitate the test bedding of new RosettaNet processes and standards to boost new supply chain capabilities such as e-Payment, collaborative design and e-Logistics.

Disk-drive manufacturer, Maxtor, uses RosettaNet to streamline its supply chain transactions and communications.

AEM-Evertech, which designs and manufactures automated equipment and parts for semiconductor manufacturers, is another company that has successfully leveraged RosettaNet to boost competitiveness.



IDA's High-Tech Manufacturing Plan will greatly boost the competitiveness of the industry, improve productivity levels and reduce operating costs. RosettaNet enables us to communicate with our customers on their procurement needs efficiently and accurately while allowing us to free up manpower to handle more strategic functions. More importantly, RosettaNet allows us to connect more effectively with our suppliers and provide better service to our customers.

Mr SK Lee
Vice President, Corporate Development
AEM-Evertech



AEM-Evertech uses RosettaNet to improve productivity and simplify supplier interactions



Singapore Tops Global e-Government Survey by Brown University

Singapore has come up tops among 198 nations in the Global e-Government study conducted by the Center for Public Policy at Brown University, USA in September 2003. The report highlighted Singapore's eCitizen portal as the website with the best access to services.

Singapore Stays 2nd in Global e-Government Accenture Study

Singapore maintained its 2nd place position behind Canada, in Accenture's e-Government Leadership Study, released in May 2004. The report highlighted the service maturity of Singapore's e-Government services, such as breadth and interactivity levels of these e-Service offerings.



Infocomm technology has today become an integral part of the medical sector

RosettaNet Global Logistics Council

IDA, collaborating with RosettaNet, established the RosettaNet Global Logistics Council to standardise communications and business processes among players in the logistics supply chain. The Council's participants include high-tech manufacturers Cisco, HP, IBM, Intel, ST Microelectronics and Texas Instruments, and logistics powerhouses APL Logistics, DHL, Exel, Federal Express, Menlo Worldwide, Portnet Singapore, Singapore Airlines Cargo and UPS.

e-Supply Chain Management (e-SCM) Ecosystem for Retail/Fast Moving Consumer Goods (FMCG)

In August 2003, IDA, together with SPRING Singapore and the Singapore Article Number Council (SANC), embarked on a two-year, S\$20 million (US\$11.8m) project to build an e-SCM Ecosystem for the Retail/FMCG industry.

Three major supermarket chains, Cold Storage (operated by Dairy Farm), NTUC FairPrice and Shop & Save, are currently developing their own systems to tap into the e-SCM infrastructure. Spearheaded by IDA, Singapore will be the first country in the region to implement e-Business messaging standards involving more than 1,000 suppliers in the FMCG industry.

Electronic Medical Record Exchange

IDA is working with Ministry of Health (MOH) to facilitate the electronic medical record exchange between the two healthcare clusters - Singapore Health Services and National Healthcare Group. IDA is also collaborating with Alexandra Hospital to conceptualise and testbed innovative infocomm solutions, and eventually to adopt these successful solutions in the Northern General Hospital, which is slated for completion by 2009.



IDA's active promotion of RosettaNet as a B2B supply chain communication standard definitely helps to accelerate the standard's widespread acceptance in Singapore. With RosettaNet, we've enjoyed significant productivity improvements, accuracy, timeliness and cost savings in our operations. As more suppliers and manufacturers connect and exchange data, we'll be able to facilitate a supply chain management system that is more competitive and responsive to the dynamic changes of the market.

Mr Ivan Ho
Director, New Business Systems
Maxtor

INFOCOMM IN LIFESTYLE, EDUCATION AND THE HOME

IDA aims to make IT work for the people through its Infocomm for Connectivity, Creativity and Collaboration strategy by facilitating learning and widespread adoption of infocomm technologies in the community, at schools, and within the home. In 2003, a number of infocomm programmes and activities were organised:

Connecting the Community e-Celebrations

On 21 June 2003, IDA launched e-Celebrations 2003, an annual campaign that aims to bring the e-Lifestyle to Singaporeans through fun and engaging activities. The e-Celebrations comprised four thematic months: **Security and Trust Month** in July 2003 not only promoted online shopping and the TrustSg seal, but also educated

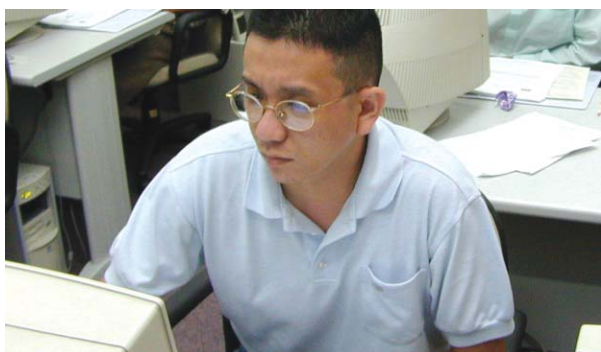
consumers and businesses on how to protect themselves on the Internet; **Telecommuting Month** in September 2003 promoted the benefits of telecommuting; **Q-Busting Month** in November 2003 heightened awareness and promoted usage of electronic/online services; and **Digital Fun Month** in March 2004 generated public interest on digital application and services.

National IT Literacy Programme (NITLP)

IDA, in collaboration with the Workforce Development Agency (WDA), developed the NITLP to educate and train non-infocomm literate Singaporeans like workers, homemakers and senior citizens to become proficient infocomm users. In FY2003, more than 59,000 people

successfully completed the NITLP. IDA also organised the Great Singapore Surf (GSS) programme, the nation's largest mass IT Literacy training event to teach Singaporeans basic computer and Internet skills. The GSS 2003 trained more than 7,000 participants over two weekends in August and September 2003, while GSS 2004 trained some 8,300 participants.

A GSS participant, Mr Roysen Teo, QA Inspector, commented: "The course has taught me how to use the many online features and services in my work." Another participant, Ms Siti Fatimah Bte Kirom, Senior Engineer, said: "The course prepares the ground for us to be IT-savvy employees and ensures that the company is ready for the Internet Revolution." Yet another participant,

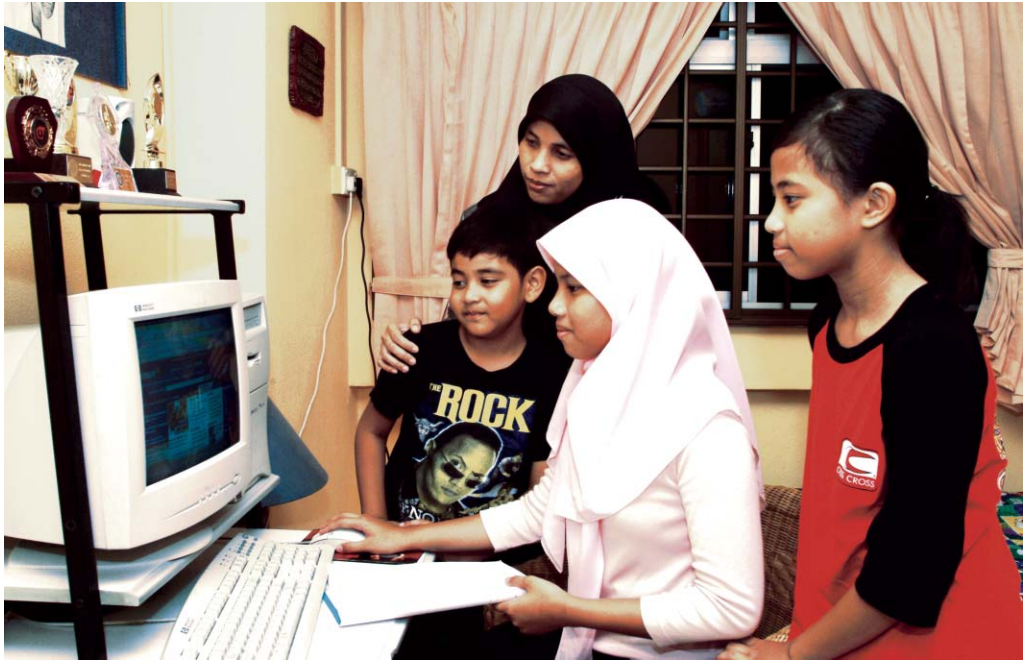


Trainees gain basic computer and Internet skills during the Great Singapore Surf

FACTS & FIGURES

According to the Annual Survey on Infocomm Usage in Households and by Individuals for 2003:

- + **73.7%** of Singapore households owned a computer, compared to 68.4% in 2002.
- + **64.6%** of Singapore households had access to Internet in 2003, up from 59.4% in 2002.
- + **39.6%** of Singapore households had broadband access in 2003, up from 24.2% in 2002.
- + **62.6%** of the total population (nearly two-thirds) in Singapore were computer users.
- + **51.0%** of the total population (slightly more than half) in Singapore used the Internet.



Mdm Rohani and family using their Dell PC received from the Neu PC Programme

Mdm Cheryl Chan, Retiree, explained: "Previously, I knew nothing about computers and the Internet. After attending the training, my husband and I can now surf the Net and send e-mails, allowing us to keep up with the times."

Neu PC Programme

In April 2003, IDA and various community groups introduced the New and used (Neu) PC Programme, a revision of the PC Re-Use Scheme which has since given free refurbished PCs to more than 12,000 low-income households. Under the Neu PC Programme, low-income families can either apply for a new PC at less than S\$300 (US\$176), or receive a refurbished PC for free. To-date, 3,000 families

have benefited from the Neu PC Programme.

Mdm Rohani Bte Mohd Abdullah, who has received a free refurbished PC under the Neu PC Programme, recalled: "I am thankful that I have benefited from IDA's community outreach programmes such as the NITLP and now the Neu PC Programme. I regularly use the Dell PC I've received to send e-mails to my friends and to look for jobs online, while my four children use the PC to do their homework and research for school projects. IDA's Neu PC Programme is a good initiative, as it enables any Singaporean to own a PC, regardless of their financial background."

Expanding Infocomm Horizons in Schools

IDA-Microsoft Backpack.NET Initiative

On 25 October 2003, IDA and Microsoft Singapore launched the Backpack.NET initiative, a S\$20 million (US\$11.8m), five-year undertaking that aimed to drive the testing, development, research and showcase of innovative infocomm technologies in education. Secondary Two student of River Valley High School, Ong Yan Neng, explained: "The tablet PC is very useful, for example, I find it easier and faster to use the stylus, instead of a mouse, to draw illustrations directly onto the tablet PC screen for my Digital Art classes."

Creating Next Generation Homes Connecting the Home Call for Collaboration (CFC)

On 29 October 2003, IDA announced that four consortia under the CFC - HomeGenesis, MyStarHome, UniHome and World@Home - have developed 35 solutions more than six months ahead of schedule. The four groups represent 26 local and international companies from the property and technology sectors, including CapitaLand Residential, LG Electronics and Samsung. Two out of the four consortia have already commercialised part of their product offerings, with seven companies expecting to generate S\$30 million (US\$17.6m) in infocomm revenue through the sale of their solutions by 2006.



I believe that IDA and Microsoft's collaboration to broaden our students' exposure and knowledge of new infocomm tools and technologies, such as the tablet PCs, will motivate the children to start exploring new technologies on their own, thereby helping to cultivate an informed future generation of infocomm experts in Singapore.

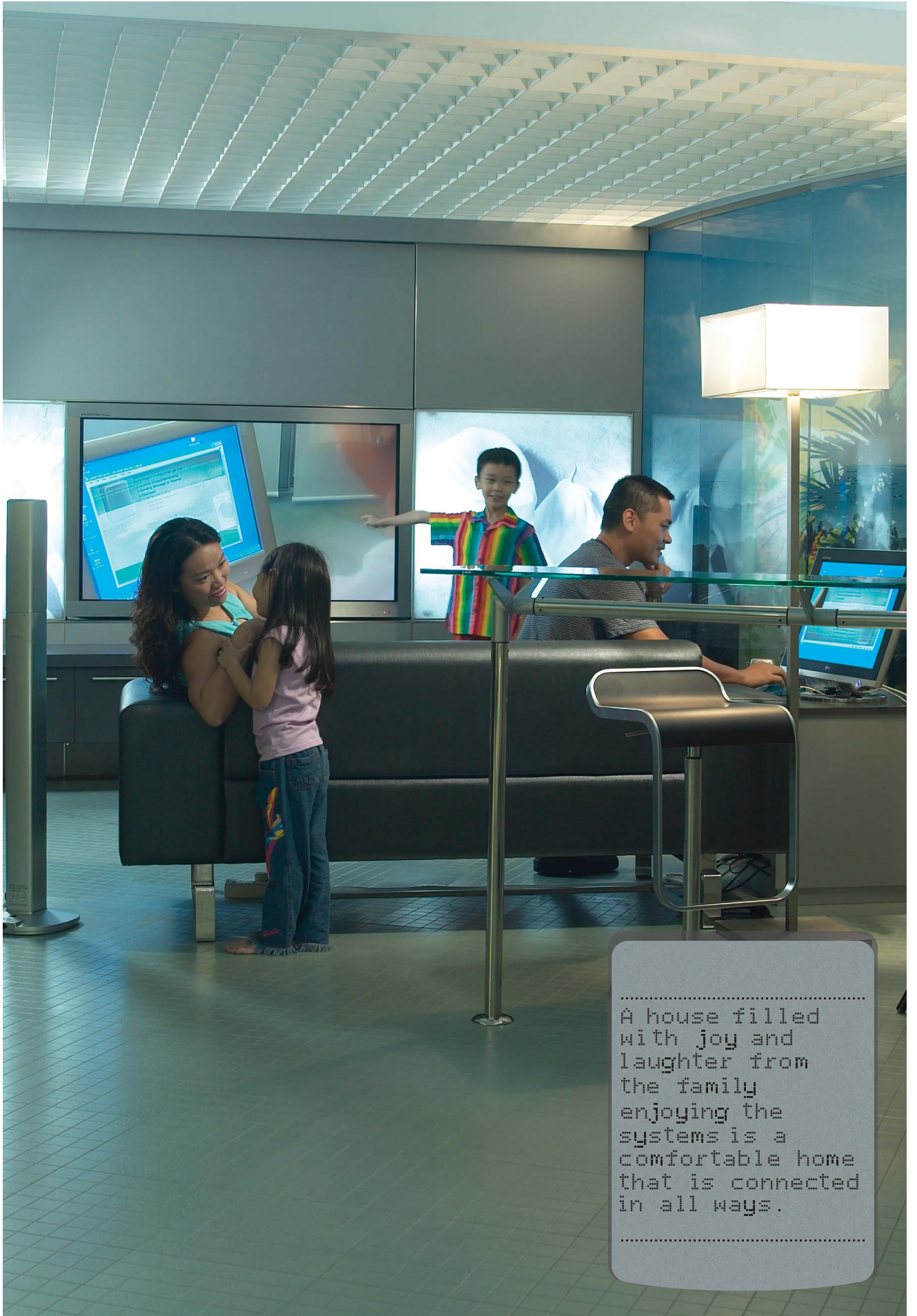
Ms Andrea Cheang
Mathematics Teacher
River Valley High School



River Valley High School students enjoying the use of the tablet PCs



.....
A house with
state-of-the-art
systems is just
a technologically
advanced piece
of property.
.....



.....
A house filled
with joy and
laughter from
the family
enjoying the
systems is a
comfortable home
that is connected
in all ways.
.....

Building the
Foundations to

MAKE **IT** WORK
IN SINGAPORE

_ INFOCOMM
DEVELOPMENTS
IN FY2003



To make IT work in Singapore, IDA must first establish a strong foundation to support the growth strategies. IDA is committed to creating a conducive business environment, facilitating strategic alliances with overseas governments; continually raising the level of infocomm capabilities and developments, promoting global infocomm standards and participating in technology trials.

DEVELOPING INFOCOMM MANPOWER CAPABILITIES

Growing an Infocomm-Savvy Workforce

IDA plans to grow and develop a sophisticated infocomm-savvy workforce and a pool of relevant infocomm specialists in Singapore by building our capabilities in key infocomm technology growth sectors with innovative infocomm manpower training programmes:

Infocomm Training and Attachment Scheme (iTA)

IDA's iTA provides infocomm individuals with hands-on experience through local and overseas attachment opportunities with infocomm organisations such as Software AG and Sun Microsystems. In 2003, IDA contributed S\$18 million (US\$10.6m) to train infocomm professionals in emerging technologies like grid computing, Web Services and wireless.

Mr Joseph Chee, Manager - Chief Architect Office at NCS, participated in IDA's iTA scheme with Sun Microsystems - the Java Black Belt (JBB) commented: "With IDA's iTA, I've received the firm technical foundation I've always wanted. I was assigned to work in Sun Microsystems' Market Development Engineering Group in Boston, USA, and worked on Java and Sun Java Enterprise System Technology-related projects during my eight-month tenure there. I feel very privileged to be selected for IDA's programme as I've definitely enhanced my skills set and employability in the local infocomm industry."

Grooming Web Services Specialists

In September 2003, IDA and Software AG launched a S\$5.4 million (US\$3.2m) collaborative one-year training and attachment programme to groom 51 Web Services specialists in Singapore over the next two years. The programme is supported by seven local partners including Cicada Cube, CyanSYS, dotERP, Frontline Solutions, iCo-op.net, Philip Tang and Sons, and S&I Business Applications. According to Gartner Consulting, the global Web Services spend will reach US\$156 billion (S\$265.2b) by 2005. This IDA programme aims to fulfil the demand for Web Services competencies by building a pool of skilled and experienced Web Services specialists in Singapore.

Web Services Skills Certification Framework

IDA introduced the Web Services Skills Certification Framework, which was jointly developed by National Infocomm Competency Centre (NICC), SiTF and the XMLOne User Group. The Framework equips infocomm professionals with Web Services competencies by meeting the career and skills-progression needs of Web Services talent.

Critical Infocomm Technology Resource Programme (CITREP)

In September 2003, IDA announced eight new Web Services Developer courses endorsed under CITREP, to accelerate the development of emerging, critical and specialised infocomm skills in Singapore. In November 2003, IDA injected an additional S\$13.5 million (US\$7.9m) into CITREP to train another 5,000 infocomm professionals until March 2005. IDA, together with academic institutions and professional organisations, developed the new courses to improve infocomm professionals' domain knowledge in finance and banking, logistics, business services, wholesale and retail, and manufacturing industries. According to Mr Tang Lek Meng, IT Analyst at ESPN: "Through IDA's CITREP, I enrolled for New Horizons' Certified Internet Webmaster (CIW) Security Professional Programme. CITREP has made it easier for IT professionals to benefit from training courses in key infocomm areas such as IT security, allowing us to develop a highly-skilled infocomm workforce in Singapore."



HP Chairman & Chief Executive Officer Carly Fiorina sharing her views with the industry on "Change & Competitiveness in a Global Age" in March 2004

Infocomm Competency Programme (ICP)

The ICP provides training in the areas of office automation, workgroup applications and Internet webpage design. Over 93,000 workers were trained since 2001, with more than 18,000 graduating from the ICP in FY2003.

National Infocomm Scholarship Programme

In March 2004, IDA and seven infocomm companies collaborated to introduce the National Infocomm Scholarship Programme. The participating companies are Computer Associates, Frontline Technologies Corporation, IBM Singapore, Microsoft Singapore, NCS, Oracle Singapore, and Singapore Computer Systems. This S\$10.5 million (US\$6.2m) scholarship programme will

award up to 90 scholarships over five years to students taking up infocomm courses at the National University of Singapore, Nanyang Technological University and Singapore Management University.

Distinguished Infocomm Speaker Series

IDA, in association with Accenture and HP, presented two Distinguished Infocomm Speakers - Glover Ferguson Jr, Chief Scientist, Accenture on 25 August 2003 and Carly Fiorina, Chairman & Chief Executive Officer, HP on 9 March 2004 - both of whom shared their views on infocomm technology with the local industry. This is part of IDA's Distinguished Infocomm Speaker Series which provides the industry with an opportunity to gain useful insights on the benefits of technology and how IT can be harnessed for the future.

Improving Local Infocomm Skills Infocomm Local Industry Upgrading Programme (iLIUP)

Under IDA's iLIUP, Singapore enterprises gain exposure to world-class technologies and international marketing expertise through partnerships with their multinational peers. As at 31 March 2004, there are 22 MNCs and 271 local infocomm enterprises under the iLIUP, generating 225 products and services and S\$77 million (US\$45.3m) worth of commercial projects revenue.

e-Trek, a local IT solutions provider which develops web-based applications for the insurance industry, is one of IDA's iLIUP successes.

Another beneficiary of IDA's iLIUP is AXS InfoComm, a leading technology provider and operator of the Electronic Service Delivery Network in Singapore.



Through IDA's iLIUP, we've connected with MNCs and tapped on their technological expertise and business development experiences, helping us develop and market our solutions locally and abroad, and giving us that added competitive boost. And, through regular interactions facilitated by IDA, we've benefited from our knowledge exchanges with other iLIUP partner members, shortening our time-to-market, acquiring more customers, and rapidly expanding our presence overseas.

Mr Yip Cheng Choon
Chief Executive Officer
e-Trek



IDA's iLIUP has allowed AXS InfoComm to form close relationships with leading companies through our iLIUP partners - Cisco Systems and Sun Microsystems. AXS InfoComm has definitely benefited from sharing information and exploring new technology development ideas with IDA's iLIUP partners to increase market share.

Mr Joey Chang
Chief Executive Officer
AXS InfoComm

SETTING TECHNOLOGY DIRECTIONS AND STANDARDS



From top to bottom:
One of the UWB seminars organised by IDA

Attendees at a UWB Seminar admiring a state-of-the-art high-speed UWB wireless link developed by Singapore's Institute for Infocomm Research

An interactive demonstration of the Smart VIP

Visitors at the ITSC PlugFest 2004 event in Singapore

As Singapore's master plan planner for infocomm developments, IDA is responsible for setting technology directions, developing infocomm standards, and undertaking trials of selected emerging technologies in Singapore. IDA collaborates with leading infocomm companies, academia and research institutes to identify and adopt infocomm technologies strategic to enhancing Singapore's competitiveness.

Bringing New Technologies to Singapore via Technology Trials and Common Platforms

IDA, together with industry partners and government agencies, conducts technical trials in key emerging technologies strategic to Singapore. These trials provide an independent assessment of new technologies and the findings are shared with the industry to raise confidence and accelerate adoption. IDA also identifies and architects Common Platforms used to accelerate technology adoption and prevent fragmentation, offering users a more compelling experience.

Singapore's Ultra-Wideband (UWB) Programme

To prepare Singapore to exploit UWB for competitive advantage, IDA launched the UWB Programme in February 2003, which comprises three thrusts: setting up a UWB Friendly Zone for UWB players to conduct product development and testing under license by IDA, perform UWB-legacy systems co-existence testing to collect first hand information for future rule making, and to seed the UWB ecosystem in Singapore. IDA's novel regulatory approach to UWB developments has been highlighted as a positive example by UWB players to their regulators in Europe. With A*Star's support, UWB research now feature

prominently in our local Research Institutes' core research and manpower growth plans.

Smart Visa for Identification with Passport (Smart VIP)

In May 2003, IDA, together with Ministry of Home Affairs (MHA), initiated the Smart VIP project, to develop a set of e-Passport technical specifications in compliance with standards developed by International Civil Aviation Organisation (ICAO) and International Standards Organisation (ISO). Leveraging the technology used in the Smart VIP project, IDA is developing a Singapore Standard for a generic secure user chip-based ID common platform under the IT Standards Committee (ITSC). The Smart VIP specification is, also applicable in architecture, for use in generic secure ID chip-based tokens such as smart cards, USB dongles and SIM cards.

Promoting Infocomm Technology Standards

Standards are important in facilitating developments and adoption of new technologies. Supported by IDA and SPRING, the ITSC promotes the adoption of international standards and establishes national infocomm standards. The ITSC provides a neutral and open platform for interested industry players, academia, research institutes and government agencies to agree on technical infocomm standards. The ITSC also started the ITSC PlugFest programme to provide multiple vendors with a platform to test and demonstrate interoperability of products based on set standards and specifications. The ITSC PlugFest 2004 in March 2004 featured three technology domains in Crypto Smart Card & Token, e-Learning and Web Services.

MAINTAINING A CONDUCTIVE BUSINESS ENVIRONMENT

IDA creates a conducive business environment in Singapore through industry-driven policies while leveraging Singapore's excellent infrastructure, political stability, transparent business practices, and maintaining a liberalised telecom market.

Establishing Pro-Business and Pro-Competition Policies and Regulations

IDA is the competition development and regulatory authority for the telecom industry in Singapore. Since the telecom sector was liberalised in April 2000, more than 200 telecom licences were issued or expanded, and over S\$3 billion (US\$1.8b) additional investments were made. Maintaining pro-business policies, IDA responds to trends in the market environment in a timely and effective manner. In consultation with the industry, IDA regularly conducts in-depth reviews of the Telecommunications Act and the Telecom Competition Code to ensure continued relevance of the legislative framework and competition guidelines.

Telecom Licensing Requirements' Revisions

IDA revised its telecom licensing requirements from 1 April 2003 to promote greater competition and increase consumer protection. Firstly, IDA opened up the telecom market to more foreign players by removing the local incorporation requirement for telecom service providers. Secondly, only SBO (individual) and FBO licensees are allowed to provide prepaid telecommunication services, and they have to furnish information on their business, financial records and scope of operations to IDA for assessment.

Free Mobile Number Portability Service

IDA announced that from 1 August 2003, mobile users would enjoy changing operators without paying the recurring costs associated with such a change. Mobile operators also had to upgrade their MNP systems to provide short message service (SMS) portability for ported subscribers by 1 October 2003.

Proposed Revisions to Telecom Competition Code (the Code)

In October 2003, IDA reviewed and proposed revisions to the Code to further support competition within the telecom market. The proposed revisions were presented to 300 industry participants at the IDA Regulatory Workshop on 7 October 2003. The proposed revisions aimed to achieve less regulation in market segments that have competition and to enhance competition in segments that have yet to achieve effective competition. Licensees have the flexibility to determine end-user service terms and conditions and dominant licensees have to publish all IDA-approved telecom service tariffs.

Exemption of SingTel's Wholesale International Telephone Services (ITS) from Dominant Licensee Obligations

In November 2003, IDA lifted SingTel's Dominant Licensee obligations in wholesale ITS. The wholesale ITS market is now fully competitive, with falling prices and at least five other major suppliers providing effective competition. IDA also removed the need for SingTel to seek prior approval for its retail ITS prices.

Streamlined Type Approvals Processes for Telecom Equipment

From 15 December 2003, IDA simplified the approval and licence appliance processes for low power radio devices and high power analogue radio-communication equipment. IDA is also the first telecom regulator in Asia to receive the ISO 9001:2000 Quality Management System for these new measures.

Enhanced Competition in Singapore's Local Leased Circuits (LLC) Markets

On 16 December 2003, IDA announced additional regulatory measures to enhance competition in the retail LLC market by requiring the Dominant Licensee, SingTel, to provide mandated wholesale LLC services to facilities-based operators. These initiatives aim to lower LLC market entry barriers, encourage operators to build parts of the LLC infrastructure, reduce telecom costs to businesses and offer consumers more competitively priced products and services.

Wider Choices of Radio-Communications and Wireless Devices for Consumers

To fuel the growth of wireless communications and connectivity in Singapore, IDA announced on 3 February 2004, that it has increased the range of the 5GHz frequency for use in WLAN products and solutions. IDA also allocated the 446.0-446.1 MHz frequency band for low-powered walkie-talkies. Equipment suppliers can now present consumers with a greater selection of wireless communications devices.

Telecom Equipment Dealers' Licence Fees Reduced

IDA reduced its Dealers (Individual) annual licence fee from S\$400 (US\$235) to S\$250 (US\$147) per premise, thereby driving business costs down and enabling telecom licensees to offer more competitively priced products and services. IDA also simplified the Dealer (Class) licence to allow Dealer (Class) licensee to obtain a single licence to cover all its retail outlets in Singapore.

Allocation of Dedicated Spectrum Bands for Broadband Deployment

From 23 February 2004, IDA announced it has allocated 2.3 GHz and 2.5 GHz dedicated spectrum bands for trials and commercial deployments of wireless broadband. This provides Singapore with an additional broadband infrastructure, giving consumers more choices when "going broadband."

Mobile Phone Numbers with Prefix '8' Issued

In March 2004, IDA issued new phone numbers beginning with the digit '8' to mobile phone operators, generating 10 million new mobile numbers, which IDA would distribute to local mobile phone operators such as MobileOne, SingTel Mobile and StarHub Mobile, as end-user demand requires.



With telecom market liberalisation, consumers now enjoy lower calling rates, and a wider array of better priced telecom products and services. Recent IDA initiated telecom policies such as Telecom Competition Code revisions and simplified application processes have enabled us to penetrate the market with an attractive "value for money" proposition for our customers. IDA has successfully created and maintained a level playing field for operators, and its practice of seeking industry opinions before implementing any policies ensures that all telecom initiatives adhere to international standards, and meet the needs of the industry and consumers.

Mr Chiang Chee Cheong
Managing Director
Phoenix Communications



Singapore's telecommunications liberalisation has allowed StarHub to operate with greater flexibility, and has broadened the range of services we are able to provide. Liberalisation has seen new operators enter the market, and many of them have become wholesale customers of StarHub. StarHub supports the steps that IDA has taken to establish a competitive environment in Singapore and believes that IDA has an important and ongoing role to play in removing barriers to entry and ensuring fair competition in the telecom sector. We would encourage a close interworking relationship between IDA and the local telecom industry.

Mr Tim Goodchild
Head Regulatory, Strategic Relations
StarHub

ACCOLADES

Singapore Ranked the Most Competitive Economy

Singapore is considered the "Most Competitive Economy" in ASEAN, according to the Annual IPS Asian 9+1 Competitiveness Ranking Indices. This is the first study that looks at the relative competitiveness of the nine ASEAN members, and China in four clusters - economic, political, business and social.

Singapore Ranked 1st in Survey on Technology and e-Commerce Capabilities

Singapore is ranked No. 1, above Finland and the United States, in a survey of 48 countries' technology and e-Commerce capabilities, according to the 2003 Global Information Technology-Economy Index (GITEI).

Singapore Maintained Top Position for the Best Business Environment in Asia Pacific in EIU Study

Singapore was ranked the best business environment in Asia Pacific in 2003, according to a survey of the world's 60 biggest countries conducted by the Economic Intelligence Unit.

Singapore Leads Asia for Network Readiness

Singapore is ranked 2nd after the United States, and leads in Asia for network readiness, according to the Global Information Technology Report 2003-4 by World Economic Forum.

Singapore is Asia's Most 'e-Ready' Nation and World's 7th Most Wired Country

Singapore is the most 'e-Ready' nation in Asia, and 7th most wired country in the world, according to an annual global e-Readiness study released by the Economist Intelligence Unit on 19 April 2004.

Enhancing Postal Services and Standards

Quality of Service (QoS) Standards

IDA requires Singapore Post (SingPost), the Public Postal Licensee, to meet a set of QoS standards to ensure that SingPost's public postal services are of an acceptable standard to members of the public. SingPost has consistently met IDA's QoS standards in FY2003. From 1 April 2004, the percentage of local ordinary mail required to be delivered within the Central Business District (CBD) and outside the CBD area by the next working day will be

raised to 99 per cent and 98 per cent respectively.

Revised Postage Rates

On 3 February 2004, SingPost revised its domestic postage rates, from S\$0.22 to S\$0.23 for standard mail of up to 20 gm and from S\$0.30 to S\$0.31 for standard mail of up to 40 gm. The rate revisions are to account for the increase in Goods and Services Tax (GST) in January 2004.

SingPost's Quality of Service Performance for FY2003 (1 Apr '03 - 31 Mar '04)

Local Ordinary Mail delivered by next working day	Target	FY2003
Within CBD	98%	99.8%
Outside CBD	95%	99.1%

Incoming Airmail received before 8pm at Airmail Transit Centre delivered by next working day	Target	FY2003
Within CBD	98%	100%
Outside CBD	95%	100%

Counter Service - Customers waiting for less than 10 minutes	Target	FY2003
Peak Period	90%	99.2%
Off-Peak Period	95%	100%

Fostering Strategic Partnerships with Foreign Governments

In an increasingly globalised and interconnected world, Singapore must incorporate regional and global alliances to stay ahead in our infocomm strategies and developments. In 2003, IDA continued to take the lead in negotiating and securing many government-to-government partnerships. IDA, through regular and open communication, successfully established close cooperations with Singapore's major economic partners such as China, India, Jordan, the United States and the ASEAN region.

Singapore and US Sign Free Trade Agreement and Joint Statement on Electronic Commerce

In May 2003, the United States-Singapore Free Trade Agreement was signed. It was the first agreement

which Singapore entered that recognised non-discriminatory treatment for digital products. A "Joint Statement on Electronic Commerce" was also issued to maintain a global environment for electronic commerce that is free from barriers to its growth. The statement calls for private sector leadership in developing electronic commerce and establishing electronic business practices.

Singapore and Jordan Cooperate to Spur Infocomm Trade and Investments

On 14 October 2003, Singapore and Jordan signed an agreement to promote cooperation in e-Government and other infocomm technology areas. Singapore will share with Jordan our expertise in ICT master-planning, e-Government operations management, and delivery of e-Government services in partnership with Singaporean companies.

Singapore and China Partner for Success

IDA is committed to building ties between Singaporean and Chinese companies in piloting new technologies and innovative IT solutions in the areas of financial services, logistics, transport, healthcare, and e-Government.

The Singapore Solutions Centre (SSC), established by IDA and SiTF, was officially launched in Shanghai in April 2004, to serve as a one-stop platform to showcase the best of Singapore's infocomm solutions.

Singapore Shares e-Government Experience with India

In May 2003, IDA began negotiating the ICT component under the India-Singapore Comprehensive Economic Cooperation Agreement. To complement this, a parallel track of cooperative activities to implement e-Government solutions with several Indian state governments - Andhra Pradesh, Gujerat, Karnataka, New Delhi and Tamil Nadu - are underway.



Singapore Prime Minister Goh Chok Tong (left) and US President George Bush (right) at the US-Singapore FTA signing ceremony in May 2003, with Minister for Trade and Industry BG (NS) George Yeo (centre) looking on

Singapore and ASEAN Leverage Infocomm to Reinforce Region's Competitiveness

From 17-19 September 2003, Singapore played host to the Third ASEAN Telecommunications and Information Technology Ministers Meeting (3rd ASEAN TELMIN). The TELMIN yielded a number of initiatives to support the realisation of an integrated ASEAN Economic Community, including:

+ Enhancing Cybersecurity

To create a more secure cyberspace, all member countries will have in place a common framework for sharing cybersecurity threat and vulnerability assessment information. By 2005, all member countries will operationalise their own national Computer Emergency Response Teams (CERTs).

+ Promoting Infocomm Market Integration

To expedite implementation of Mutual Recognition Arrangements (MRA) on conformity assessment for telecommunication equipment by 2005. To serve as pathfinders for the region, Singapore has entered into bilateral MRA with the Republic of Indonesia and Brunei Darussalam.

+ Bridging the Digital Divide

To share best practices when rolling out network and services, such as Universal Service Obligation (USO) schemes and promoting infocomm usage. ASEAN ICT ministers also launched ASEANconnect, a publicly accessible digital divide database to house key data statistics, measurement indicators and analyses of initiatives, to enable decision makers to use information more effectively when planning projects aimed at bridging the digital divide with the ASEAN community.

+ Building ICT Capacity & Capabilities

To promote collaborations between infocomm skills competency centres in the region. Common standards and regional accreditation models for IT Project Management and Cybersecurity skills certifications will be explored.

+ Engaging Industry Leaders

To further enhance business and industry input for TELMIN on ICT industry development and policy and regulatory issues, an e-ASEAN Business Council, comprising of CEO-level infocomm industry representatives, will be formed.

+ Establishing Strategic Links

Collaborative activities and discussions with ASEAN Dialogue partners, namely, China, India, Japan and Korea were initiated.





SENIOR MANAGEMENT

1 TAN CHING YEE
Chief Executive Officer

2 LEONG KENG THAI
Deputy Chief Executive/
Director-General (Telecom)

3 WU CHOY PENG
Assistant Chief Executive
(Government Systems)

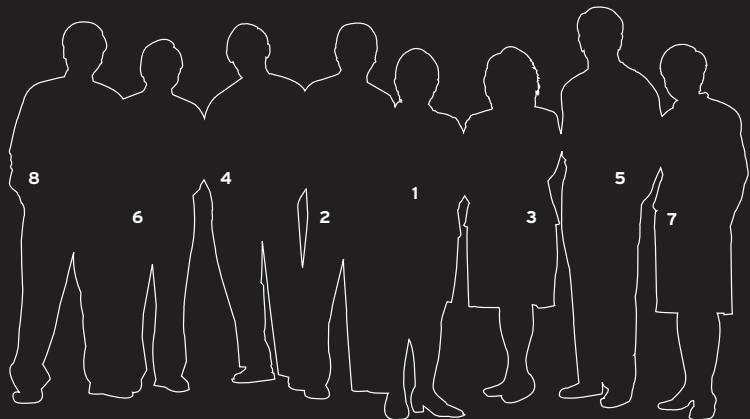
4 KHOONG HOCK YUN
Assistant Chief Executive
(Industry)

5 ANDREW HAIRE
Senior Director
(Policy & Competition
Development)

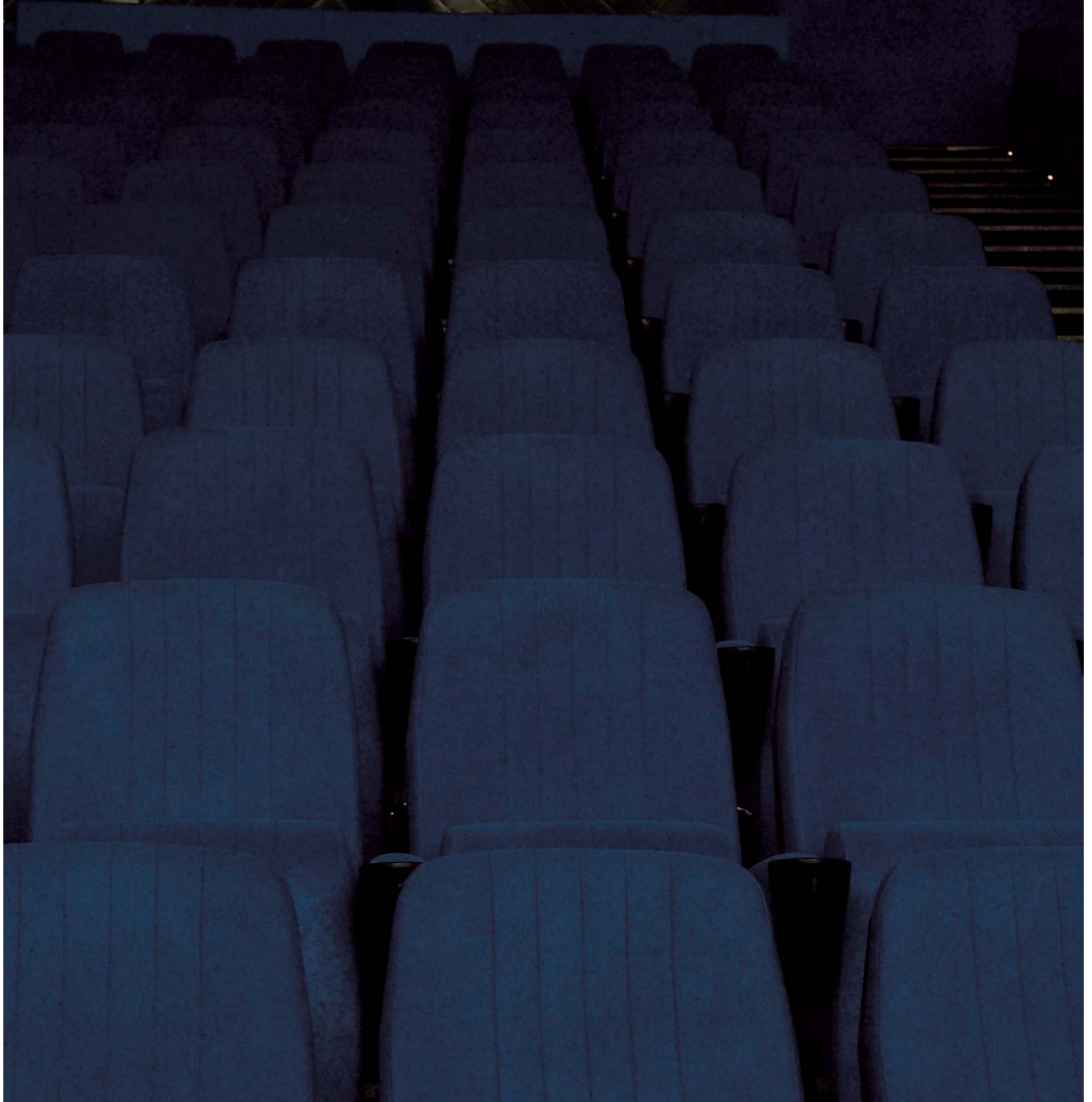
6 WILLIAM HIOE
Senior Director
(Strategic Planning)

7 ONG LIH LING
Senior Director
(Corporate Development)

8 DR TAN GEOK LENG
Chief Technology Officer
(Covering)



.....
A cinema hall
with digital
server, projector
and surround
sound is just an
empty room with
plush seats and
sophisticated
systems.
.....



.....
A cinema that
enhances the
viewing experience
for people from
all walks of life
spurs industry
growth and extends
Singapore's hub
status in the
digital world.
.....



@IDA

_ IDA AND
ITS SUBSIDIARIES



At IDA, a healthy balance among professionalism, dynamism and fun is kept. IDA trains and coaches its staff to do their jobs well, and to enjoy being part of the IDA family.

PEOPLE@IDA

IDA initiated a series of manpower training and development programmes designed to inspire IDA staff to fulfil their professional and personal endeavours. Some of these programmes included:

Competency-Based Development Programmes

In 2003, IDA enhanced the Achieving Continuous Excellence (ACE) programme, a competency-based performance management system, which was first launched in July 2002. The enhanced ACE streamlined the workflow and automated some processes to route staff performance plans more smoothly and efficiently to various management levels. IDA also introduced the Performance Enhancement Action Plan (PEAP) system to provide a platform for staff and their supervisors to identify and collectively map out a staff development plan, listing specific action steps, progress checks and learning resources required to help staff continuously improve and grow within the organisation.

New Managers' Orientation Programme

IDA conducted two runs of an orientation programme called "Bridging Across IDA", in which 40 managers attended. The programme, which allows managers to network and understand the collaborative opportunities with their counterparts in the other divisions, aims to help

new managers understand the rationale behind IDA's key initiatives, enabling them to be more effective in their work and in their interactions with their staff.

Career Development Workshops

Up to 10 career development workshops were carried out in the course of the year to give staff the opportunity to plan and map out their own career paths within the organisation. Through the workshops, IDA staff are able to discover their own job motivations, interests, and work values, enabling them to excel at whatever they do. Staff can also initiate job rotations in accordance with their career development goals, and learn more about different functional and business areas within IDA.

Talent Management and Development Programme

IDA believes in identifying future leaders within IDA as early as possible, in order to harness their full potential and provide them with multiple opportunities to excel. Identified talents are exposed to leadership roles in strategic task forces, varied assignments, job rotations and through participations at Executive Development Programmes in renowned local and overseas universities. This systematic and proactive approach to talent management and development equips IDA with a ready pool of leaders.



New managers working together during the "Bridging Across IDA" orientation programmes

TEAM@IDA

IDA also initiated programmes to support organisational development and operational excellence within IDA.

Cultivating a Conducive Work Environment

Maintaining an environment conducive for work is important, but at IDA, it is also important to provide an environment where staff can readily share their ideas and exchange opinions on anything pertaining to IDA. To achieve this, IDA has organised a series of events such as the Staff Conference, brainstorming and sharing sessions like Café Latte (Learning and Thinking Together Enthusiastically) and iCafé, team-building activities, and the Staff Suggestion Scheme (SSS) to facilitate an open exchange of ideas on IDA's organisational developments. IDA also enhanced staff wellness and satisfaction by organising a wide spectrum of programmes and activities ranging from family friendly policies, employee benefits and employee well-being schemes to programmes that promote employee-management relationships. In June 2004, the Ministry of



Staff exchanging ideas and views at the IDA Staff Conference in October 2003

Community Development and Sports awarded IDA the Singapore Family Friendly Employer Award, in recognition of its commitment in staff wellness.

Act, Communicate, Take Ownership (ACT)

IDA initiated the ACT project to evaluate IDA's strategic positioning in the industry, public and the marketplace i.e. to determine how the general public, industry partners, overseas partners and customers view IDA as an organisation. This project aims to improve IDA's strategic positioning and facilitate alignment within the organisation to accomplish this.

Singapore Quality Class (SQC)

In July 2003, IDA embarked on its journey towards achieving the SQC. The SQC project took about six months to complete. On 23 March 2004, SQC assessors appointed



by SPRING conducted a site assessment at IDA, and in May 2004, IDA successfully attained SQC recognition.

ISO9001 Certifications

In September 2003, the Government Chief Information Office (GCIO) of IDA was fully ISO9001-certified. A month later, the Equipment Conformance Section and Licensing & Operations Department in the Policy & Competition Development Group received the ISO9001:2000 certification.

Online Balanced Scorecard (BSC) System

IDA embarked on the second phase of the BSC system in FY2003, to align the objectives and Key Performance Indicators (KPIs) with the Connected Singapore vision. The system went online in October 2003, enabling IDA's various divisions to analyse KPIs and monitor performance targets more effectively.

Net Economic Value (NEV) Project

In February 2003, IDA started the NEV, an integrated resource management framework, and fully implemented it by March 2004. NEV is a financial measurement, which integrates three key aspects: net operating profit, invested capital, cost of capital of the business economics into one key measurement standard. With NEV, IDA plans to maximise value from its capital and resources invested in the business, and to drive long-term growth in value.

FUN@IDA



Top:
Raising funds for charity through IDA's very own Pasar Malam event

Bottom:
Interacting and bonding with children of IDA's adopted charity - the Singapore Children's Society Convalescent Home

IDA believes that ensuring staff well-being through social interactions is just as important as organising events and training sessions to develop their career paths. Fun@IDA, IDA's recreation club, regularly organises fulfilling and fun-filled activities aimed at helping IDA staff relax and unwind after a long day at work, as well as caring for the less fortunate through events such as:

Fund Raising through Pasar Malam

On 5 December 2003, IDA raised and donated more than S\$11,000 (US\$6,471) through the Pasar Malam for its adopted charity, the Singapore Children's Society Convalescent Home. IDA staff worked together to "sell" a wide variety of items at the Pasar Malam ranging from bags, books, clothing, CDs/VCDs/DVDs, electrical appliances, soft toys, interesting collectibles, and even homemade snacks and local titbits to raise funds for the Home.

Bringing Joy to the Children of the Singapore Children's Society Convalescent Home (the Home)

Fun@IDA also organised regular visits to the Home, so that staff can

spend more time interacting closely and bonding with the children on a regular basis. In addition, children from the Home joined other IDA staff and their children at The Cat in the Hat movie preview held at Eng Wah Suntec City and Cathay Cineleisure during the March 2004 school holidays.

Encouraging Healthy Living through Social Interactions

IDA staff benefited from a series of fitness programmes such as pilates, yoga, kickboxing and health improvement talks such as "Posture, Posture, Posture! Back and Neck Aches". IDA staff fostered team spirit and sportsmanship by participating in ten games such as bowling, football, snooker, squash, tennis and international chess at the Public STAR Games 2003 (STAR stands for "Staff Team up for Active Sports and Recreation"), an annual championship game organised by the Civil Service Club. IDA emerged fourth among 18 participating ministries and statutory boards under Division II. IDA staff also enjoyed a night of "rock and roll" together during its annual Dinner & Dance on 16 January 2004 at the Raffles City Convention Centre.



From left to right:

IDA's tennis team entered the quarter-finals of the Public STAR Games 2003

Staff receiving tips on how to maintain a healthy lifestyle at a health improvement talk organised by IDA

The IDA chess team at the Public STAR Games 2003

INFOCOMM INVESTMENTS PTE LTD



Director
Madeleine Lee
Director
Athenaeum
Pte Ltd

Director
Ong Peng Tsin
President & Chief
Executive Officer
Encentuate Pte Ltd
(Not in picture)



Chairman, IIPL
Low Check Kian
Chairman
NewSmith Capital
Partners (Asia) Pte Ltd



Director
Yong Ying-I
Permanent
Secretary
Ministry of
Manpower



Director
Tan Ching Yee
Chief Executive
Officer
Infocomm
Development
Authority of
Singapore

A NOTE FROM CHAIRMAN OF INFOCOMM INVESTMENTS PTE LTD (IIPL)

The overall business environment in Singapore continued to be difficult in the first half of FY2003, with further tightening of corporate IT budgets across industries; the SARS outbreak in Asia; and global economic instability. We have, however, witnessed signs of gradual recovery emerging from the second half of FY2003.

Against this challenging backdrop, IIPL managed to make a healthy profit and performed credibly in the financial year ended, 31 March 2004.

In February 2004, IIPL was part of a consortium of Singaporean investors, which invested S\$27 million (US\$15.9m) in System Access, a leading financial software provider of customer-centric universal banking solutions for financial institutions. IIPL whole-heartedly supports IDA's efforts in developing Singapore into a vibrant infocomm hub through our equity investments.

Among IIPL's investments, novaSPRINT, a solutions provider and systems integrator for the urban planning and healthcare sectors, which was listed on MESDAQ in August 2003, enabled us to financially gain from the sale of our shares.

Moving forward, the board and management of IIPL will continue to maintain discipline when sourcing for suitable new investments which are strategic to the infocomm sector in Singapore; assist our existing portfolio companies to grow; and capitalise on exit opportunities where they arise.

I would like to take this opportunity to welcome our new director, Mr Khoong Hock Yun, to the Board on 17 November 2003 and also, to thank my fellow directors for their contributions during the year.

LOW CHECK KIAN
Chairman, IIPL



Director
Teo Swee Lian
Assistant
Managing
Director
Monetary
Authority of
Singapore



Director
Khoong Hock Yun
Assistant Chief
Executive
(Industry)
Infocomm
Development
Authority of
Singapore