

A subsidiary of IDA Singapore

# A Presentation on Singapore's ICT Journey

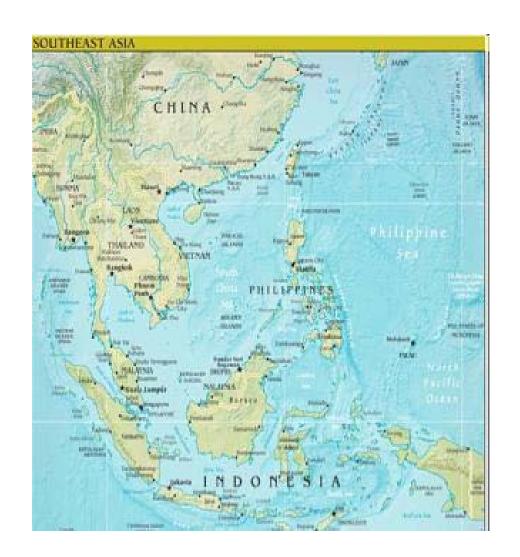
Presented by:
Yong Chye Loh
Deputy Director, IDA International

26 Oct 10

### Outline

- About Singapore and IDA
- Singapore's ICT Journey
- Case Studies: Delivering Value to Businesses and Citizens
- Video





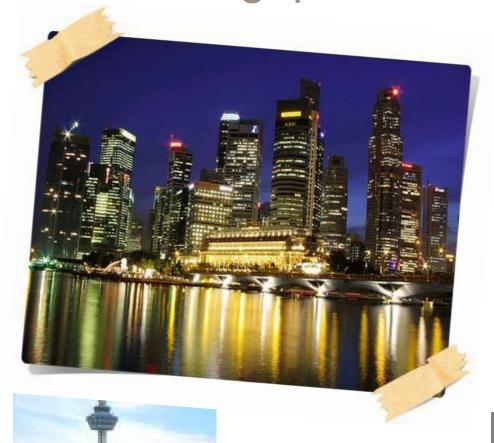
### About Singapore

- Land Area : 707 sq km
- Population: 5M
- •GDP Per Capita : **US\$37,850**
- •Government Agencies : **15** 
  - Ministries & 66 Statutory Boards
- Public Sector Officers:126,000 (4.6% of workforce)



### About Singapore







World's Best Quality for Port Infrastructure (2006-2008)
Best Seaport in Asia (2008)



Households with Internet Access: 76% (2008)

Mobile Penetration = 133% (Aug 2009)

Home Broadband Penetration = 124% (Aug 2009)

**Ist in World for Quality of Air Transportation** 

(World Competitiveness 2006-2008)



### Nation Building Formula?

Effective Policy Design + Sound Fiscal Management
 + High Household Savings + Market-based Efficiency
 + Attention to Incentives + Usage of ICT as a
 Strategic Enabler & Driver + Social Policies for
 Human Capital Formation + Purposeful State
 Invention + Growth Enhancing Institutions and Culture
 + Leadership + Effective Governance + Political
 Economy of Implementation

# ICT as the Strategic Enabler for Nation Building

Effective Policy Design + Sound Fiscal Management + High Household Savings + Market-based Efficiency

+ Attention to Incentives + Usage of ICT as a Strategic
Enabler & Driver + Social Policies

for Human Capital Formation + Purposeful State
Invention + Growth Enhancing Institutions and Culture
+ Leadership + Effective Governance + Political
Economy of Implementation

### **About IDA**

 Statutory board under Ministry of Information, Communications and the Arts (MICA)



- Vision: Singapore: An Intelligent Nation, A Global City, powered by Infocomm
- Mission: To develop the ICT cluster as a major engine of growth and to leverage ICT for economic and social development

**IDA's Roles** 

Singapore: An Intelligent Nation, a Global City, Powered by Infocomm

(2) Masterplanning, project-managing, implementing infocomm systems and capabilities for Government

(1) Develop vibrant and competitive IT and communications industry

Architecting Singapore's ICT roadmap, planning for key infrastructure, manpower development, security and technological developments

Infocomm Industry Developer CIO Sector Transformation tion Feople Sector Enrichment

(4) Transforming key people sector clusters & raising the infocomm sophistication of citizens

Infocomm Infrastructure

Manpower Development

Infocomm Security

Infocomm Policy

International Engagement

Technology

Corporate Functions

(3) Spearheading transformation of key economic sectors, Government and society through more sophisticated and innovative use of infocomm

### **IDA** International

Mission: IDA International helps public agencies deliver socio-economic outcomes through the strategic use of Infocomm Technology (ICT).

**PLANS** 

Collaborate with public agencies to develop Strategic ICT Plans to support national vision and plans for socio-economic growth.

**EXECUTES** 

Partners with public agencies and iCT industry partners to build infrastructure and services components to deliver the national agenda and iCT strategic plans in the most effective way.

TRANSFERS KNOWLEDGE Advises public agencies and collaborates with them to build capabilities to plan, manage and implement national infocomm programmes.

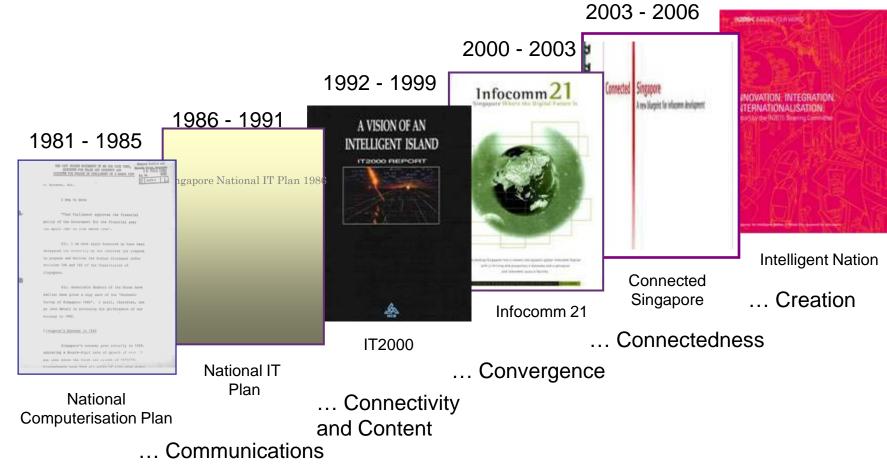
- IDA International, a wholly-owned subsidiary of IDA Singapore, was established to meet increasing international interests in Singapore's experience and expertise in public service infocomm.
- We serve as the execution arm for public service infocomm partnerships with foreign governments.
- We help our foreign government counterparts better understand and benefit from Singapore's experience and to implement their ICT programmes successfully
- We bring our unique know-how and proven ICT experience, professional expertise and consulting skills, to assist governments achieve their vision and outcomes.

ida internationa

We have gone through close to 30 years of Foundation Building and Planning in Infocomm and developed 6

National Infocomm Plans

2006 - 2015



Computerisation

### Some Recognition for Singapore

### S'pore govt tops in customer services: Accenture

Citizens give thumbs-up to customer-centric approach by govt



One tier below the top two came the US, Denmark and Sweden. The US fell from No 2 in 2005 to No 3 in 2007, in part because of the perception by citizens that customer service has not improved in recent

- 1st in Waseda University International e-Govt Ranking 2009
- 1st in Accenture e-Government study 2007
- 2<sup>nd</sup> in Global IT Report, WEF 2009-2010
- 1st in Government Usage and Readiness, WEF Global IT Report 2007-2008
- **3rd** in Global Competitiveness Report 2009-2010
- 8th in 2010 digital economy rankings by EIU

#### **International Awards:**













#### **Top 10** Digital economy rankings

2010 RANK (OF 70)	2009 RANK	COUNTRY	2010 SCORE (OF 10)	2009 SCORE	
1	2	Sweden 8.49		8.67	
2	1	Denmark	8.41	8.87	
3	5	United States	8.41	8.60	
4	10	Finland	8.36	8.30	
5	3	Netherlands	8.36	8.64	
6	4	Norway	8.24	8.62	
7	8	Hong Kong	8.22	8.33	
8	7	Singapore	8.22	8.35	
9	6	Australia	8.21	8.45	
10	11	New Zealand	8.07	8.21	

Note: A four-decimal score is used to determine each country's rank.

Source: Economist Intelligence Unit, 2010

#### S'pore No. 2 in world infocomm ranking

1. Sweden

4. Switzerland

5. United States 6. Finland 8. Hong Kong 9. Netherland

IN AN appreciative nod to inroads made in its usage of information and communications technologies (ICT), Singapore has been ranked second in an annual world report which assess-es countries on how they use ICT to further economic growth. The Global Information Technolo-

The Global Information Technology Report, published by the World Economic Forum (WEF) and leading business school Insead, ranked 133 economies and examined how they used such technologies in businesses and 1. Swed in government, the infra-structure, and the actual usage of such technologies by everyone.

The report took into ac-count 68 indicators such as the use of infocomm technology by individuals, businesses and the govern-ment; accessibility of dig-ital content; Internet ac-cess in schools and the

Sweden, Singapore and Denmark's superior capacity to leverage ICT as an enabler of sustainable, long-term economic growth is a direct result of the focus placed by gov-ernments and private sectors alike on education, innovation and ICT access and diffusion," said Ms Irene Mia, a

senior economist at the Global Com-petitiveness Network at the WEF, who co-edited

the WEF, who co-edited the report.

Singapore has a 10-year master plan to grow the IT sector. Ef-forts include the Next Generation National Broadband Network which will provide ultrawhich will provide ultra-high speed broadband connectivity to homes and offices islandwide. Analysts say these na-tional efforts have played a big role in the

improved ranking.

### Delivering A Pro-Business Enviroment

Singapore is ranked World's Easiest Place to Do Business, 2007-2010

EASE OF DOING BUSINESS				
Country	Ranking			
Singapore	1st			
New Zealand	2 <sup>nd</sup>			
Hong Kong	3 <sup>rd</sup>			
United States	4 <sup>th</sup>			
United Kingdom	5 <sup>th</sup>			
Denmark	6 <sup>th</sup>			
Ireland	7 <sup>th</sup>			
Canada	8 <sup>th</sup>			
Australia	9 <sup>th</sup>			
Norway	10 <sup>th</sup>			



"Doing Business", World Bank, 2007 -2010

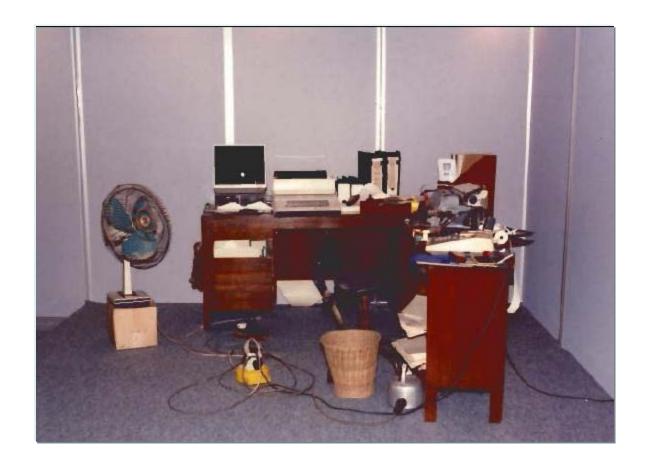


#### The Global Enabling Trade Report 2008

Benchmarking the ease of getting goods across borders

Singapore is anked No.1		Border Administration		Efficiency of Customs procedures		Efficiency of Specific Import- export Procedures		Transparency of Border Administration	
	Country	Rank	Score	Rank	Score	Rank	Score	Rank	Score
	Singapore	1	6.51	1	6.48	2	6.45	5	6.61
	Sweden	2	0.32	4	6.00	3	6.36	4	6.61
- 1	New Zealand	3	6.16	3	6.01	10	5,81	2	6.65
	Finland	4	6.15	7	5.73	6	6.09	3	6.64
	Denmark		6.10	18	5.17	1	6.47	1	6.65
- 1	Norway	6	6.06	8	5.68	5	6.25	8	6.25
- 1	Hong Kong SAR	7	5.99	10	5.59	4	6.29	12	6.09
ī	Netherlands	8	5.98	6	5.73	8	5.92	7	6.29
-	Canada	9	5.78	12	5.53	18	5.64	10	6.18
- i	Luxembourg	10	5.77	15	5.36	12	5.79	11	6.16
- 9	Australia	11	5.71	13	5.47	25	5.43	9	6.23
- 3	Switzerland	12	5.69	21	5.10	19	5.61	6	6.36
- 1	Estonia	13	5.63	5	5.81	- 11	5,80	23	5.26
- 1	United Kingdom	14	5.58	22	5.07	17	5.65	14	6.00
- 8	Germany	15	5.57	32	4.77	7	5.99	15	5.95
- 7	Austria	16	5.57	34	4.72	9	5.91	13	6.07
	Japan	17	5.55	20	5.15	14	5.71	16	5.79
	Korea	18	5.49	2	6.03	22	5.55	31	4.90
	reland	19	5.43	33	4.73	13	5.78	17	5.78
- 3	Chile	20	5.43	17	5.35	30	5.24	18	5.69

### Singapore e-Government Experience: Our Beginnings



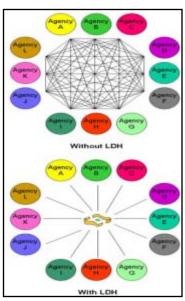
### Civil Service Computerisation Programme (1980 – 1999)

Programme involved automating work functions and reducing paperwork for greater internal operational efficiencies

- Phase 1: Improvements to public administration through the effective use of IT
  - Automating traditional work functions
  - Reducing paperwork & clerical staff
- Phase 2: "One-Stop, Non-Stop" services to public & businesses
  - Data sharing across agencies e.g. People Hub, Business Hub, Land Hub
  - Extending government systems to private sector e.g. TradeNet, MediNet, LawNet
- Phase 3: Supporting the vision of "Singapore The Intelligent Island"
  - Consolidation of systems in a Data Centre
  - Civil service-wide network infrastructure
  - Development of the SingaporeOne Broadband network







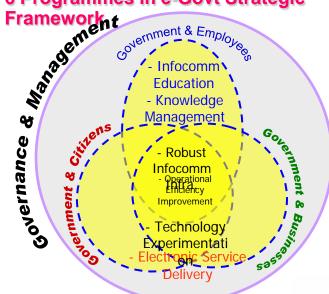


### e-Government Action Plans

#### eGAP I (2000-2003)

The key objective was to put as many feasible public services online as possible

6 Programmes in e-Govt Strategic



#### iGov 2010 (2006-2010)

From "e" to "I" - a Shift in Focus from Means (Electronic) to Outcome (Integrated)

vision

To be an Integrated Government that delights customers and connects citizens through infocomm

#### eGAP II (2003-2006)

To be a leading e-Government to better serve the nation in the digital economy.

Delighted Customers e-Services Advantage

Convenient & easy to use Transcends organisational boundaries Respects privacy

Connected Citizens
Supporting Active Citizenry
Citizens as stakeholders
Community building
Greater Trust & Confidence

Networked Government Underlying Foundation

"Many Agencies, One Govt"

Agile, Effective & Efficient Secure & Responsive

#### strategic thrusts

#### Increasing Reach & Richness of e-Services

- Develop insights to enhance e-Services to customers
- . Deliver proactive, user-friendly, responsive and integrated e-Services
- Extend the reach of e-Services

#### Increasing Citizens' Mindshare in e-Engagement

Deliver clear and useful information online in a vibrant and interesting manner
 Attract participation in online public consultations and feedback

#### Enhancing Capacity & Synergy in Government

- · Create synergy through shared data, processes & systems
- Enrich public officers' work experience through innovative use of infocomm
   Foster innovative exploitation of infocomm in public sector

#### **Enhancing National Competitive Advantage**

#### key enablers

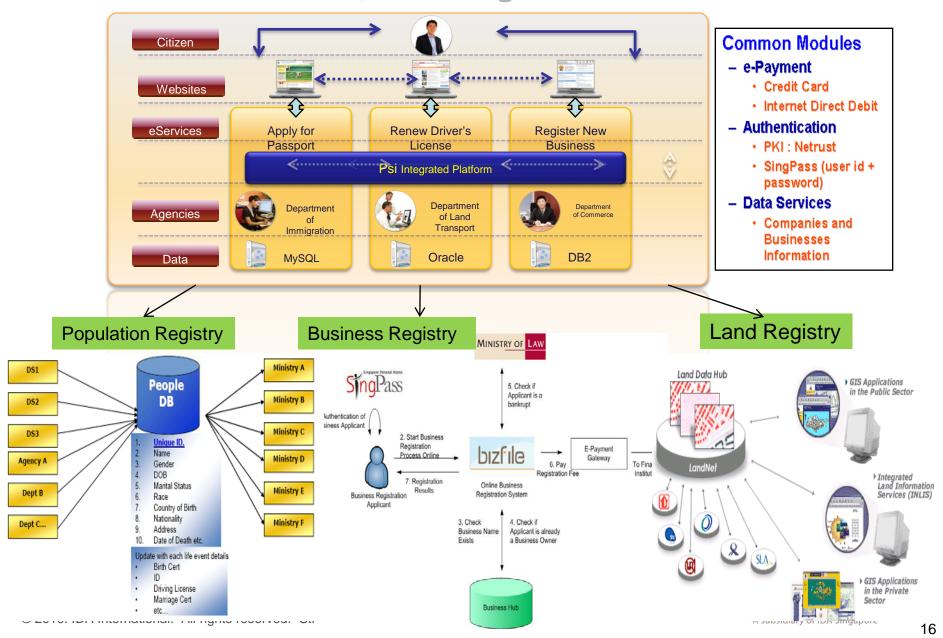
- Enhance economic competitiveness through sectoral transformation
- · Collaborate with Infocomm industry in iGov solutions
- Showcase and promote iGov solutions



· Infocomm Management and Governance

- Public Sector Infocomm Competency Development
  - · Infocomm Security and Infrastructure

## The Foundation to Integrated e-Services: Common Public Service Infrastructure, Data Registries and Services



#### E-Filing Business Registration

ACRA's e-filing system (BizFile) was featured in the World Bank's publication titled "Celebrating Reform 2008" as a case study. The book was launched in Washington DC in July 2008 by the World Bank and USAID.



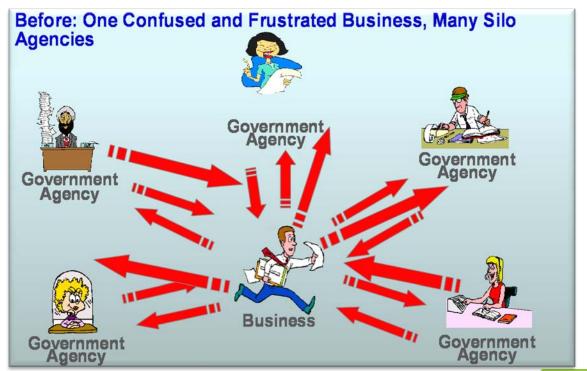
- Electronic filing and registration of new businesses
- From 3 days to within 2 hours
- Allows members of the public to file online all legally prescribed business & company forms for the purposes of registration & statutory disclosure requirements
- Accolades:
  - CIO 100 Honours 2004 & 2005
  - Intelligent Enterprise Asia Award 2004





### Online Business Licensing System (OBLS)

### Many Agencies, One Government





#### Accolades:

- United Nations Public Service Award 2005
- Laureate by IDG Computerworld Honors Program 2007
- ZDNet Asia Smart50 Award 2007
- MIS Asia IT Excellence Award 2007 "Best IT Governance" category





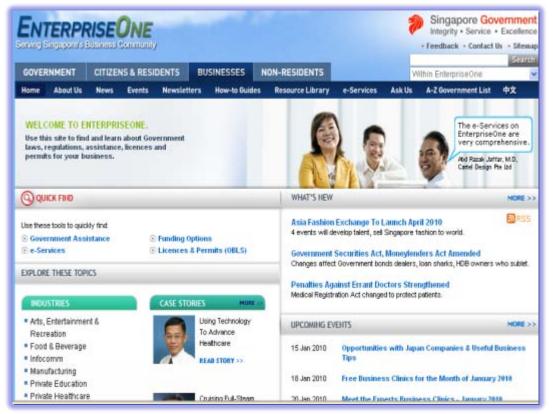


2005





### Online Business Licensing Service



#### Accolades:

- 1. Awarded UN Public Service Award 2005
- 2. Recognized as a Laureate by IDG Computerworld Honors Program 2007

#### Convenience

- One-stop licence application
- Single integrated form for multiple licences, to multiple agencies
- Immediate, automated status update via sms/email

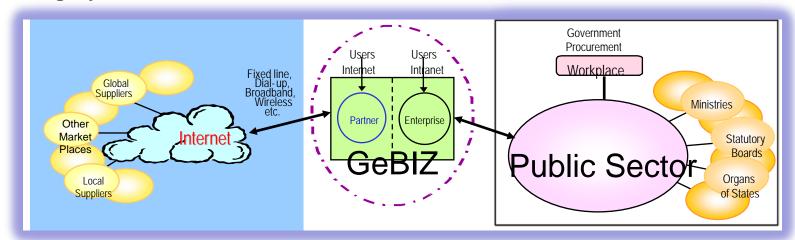
#### **Streamline processes**

- Up to 90% reduction in processing time
- Up to 50% reduction in data entry
- 10% reduction in number of licences



### Government e-Procurement (GeBiz)

- Launched in 2000, a one-stop e-procurement portal used by the Singapore Government to conduct trade with suppliers
- 133 Ministries/Agencies and 10,000 users
- Global reach to suppliers
- Handles transactions worth more than S\$20 billion annually
- Reduces paper work, submit e-bids and receive e-orders anytime and anywhere
- Improves efficiency for government agencies and suppliers
- Compliant to the requirements of WTO-GPA: Transparency, Open And Fair Competition, Value for Money
- Typical saving of 3-20% in procurement value depending on the procurement category





### Benefits to Businesses

<b>Business Needs</b>	Previously or manually	Now through e- services
Incorporating a new company	S\$1,200 to S\$35,000 (depending on company size) Time required: 5 days	S\$300 (flat fee)  Time required: 2 hours
Submitting building plans	Manual dispatching of documents to 12 agencies	Savings of \$450 by submitting online
Trade Clearance	At least 3 working days 3 – 30 documents	< 1 min 1 document 25% Productivity Increase 50% Cost reduction
Register a New Vehicle	1 working day \$5 - \$10 (courier service)	10 to 15 minutes FREE!
Obtaining an Entertainment license	Time required: 8 weeks	Time required: 2 weeks

### Delivering Value to Citizens

Many agencies, one government

# **1,600** e-Services & **400** M-Services available from the Singapore Government



### Delivering Convenience to Citizens

#### Online application of Passports



#### E-Filing Income Tax



#### Savings:

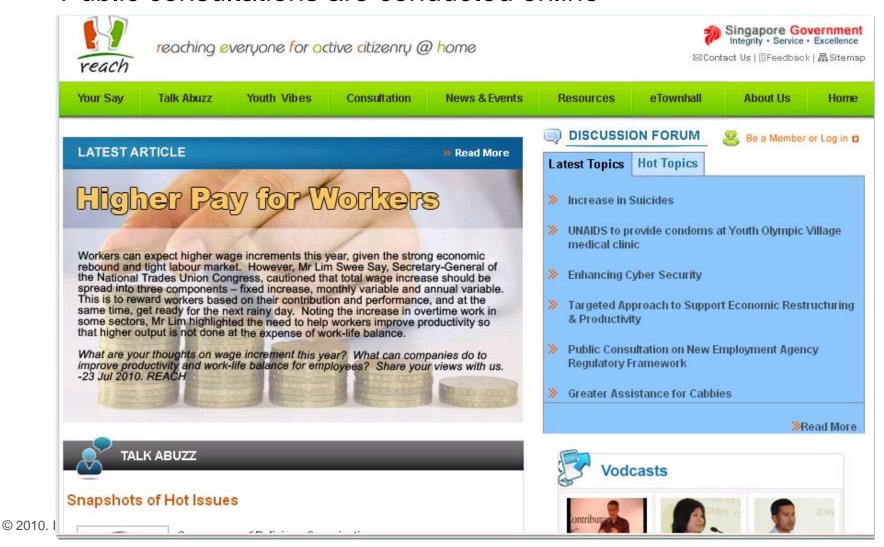
- Time: from 2 weeks to 3 days
- Fees: from S\$80 to S\$70
- Waiting time to collect passport: from 3 hrs to < 0.5hr</li>
- Number of trips made: from 2 to just 1 time

- Information pre-populated in almost every field
- CLICK! to confirm information is correct
- No-Filing Service One of world's first



### e-Consultation Portal

- All public policies (100%) explained electronically
- Public consultations are conducted online



### Benefits to Citizens

Government Service	Over The Counter	Online
Applying for a passport	Processing time: 7 days No. of counter visits: 2	Cost: Savings of S\$10 (US\$6) Processing time: 3 days No. of counter visits: 1
Getting married	No. of counter visits: 2	No. of counter visits: 1
Renew Road Tax	No. of counter visits: 1	No. of counter visits: 0
Submitting application for a resale apartment	No. of Counter Visit = 1  Cost = \$50-80 (US\$30-48) each for seller and buyer	No. of Counter Visit = 0  Cost = \$30-60 (US\$18-36)  each for seller and buyer
	Processing Time = 3 days	Processing Time = 2 days



### iN2015

- > Enriched lives through infocomm
- Enhanced economic competitiveness and innovation through infocomm
- Increased growth and competitiveness of the infocomm industry

Sectoral
Transformation
of Key Economic
Sectors, Government
and Society

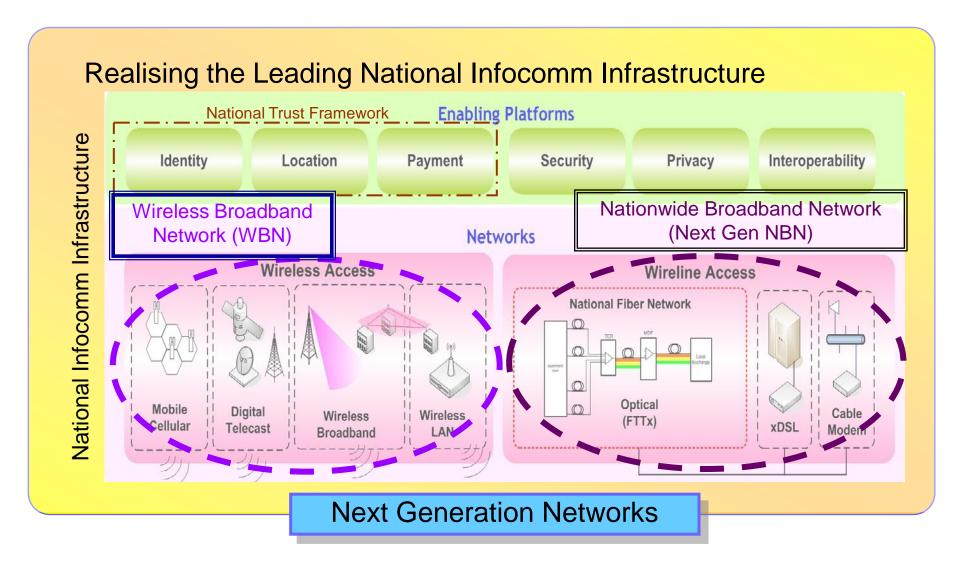
Ultra-high Speed,
Pervasive, Intelligent
and Trusted Infocomm
Infrastructure

Globally Competitive Infocomm Industry

Infocomm-savvy
Workforce and
Globally Competitive
Infocomm Manpower



### National Infocomm Infrastructure



### Wireless@SG

- Free Wi-Fi access till 2013
- > 7,000 hotspots
- 1.5 million unique subscribers
- Innovative services on-the-go
- Centralized Location-Based Engine

THAM YUEN-C trawls the island for some unusual and lesser-known places where you can surf for

free on Wireless@SG

AT THE hawker centre in Tampines
Street 11, visitors can tuck into a
plate of chicken rice for \$1.80 - and
surf the Net for free.

surt the Net for free.

The town centre with 225 stalls and shops is one of a growing, number of places in the heartland where people can expect to use the free Wireless@GG service, a government initiative meant to get a propose the propose of th

government initiative meant to get people here surfing the Internet. "So it is \$1.00 for chicken rice with free Wi-Fi. That is added value for their customers," quipped Ken Chra, chief executive officer of ICell, one of the three roises.

additional country of the country of

New surf turf
The push is part of a step-up to get
Singapore wirelessly connected.

Singapore wirelessly connected.
In June this year, the
Government amounced that it was
pumping in another \$9 million to
give the WirelessleSC service a
boost: It will be extended for
another four years and surfing
speeds will also be bumped up from
\$12kbps to IMbps by September.
The combination of Government

between the Government and three Wi-Fi service providers which comprise QMax, SingTel and iCell. The cost of the network is shared among all parties. In 2006, the Government reledieed \$100 million

for the project.

To date, 1.3 million people have signed up for the free service. On average, 35 per cent of people who use Wireless@SG spend more than

New revenue source Both QMax and iCell have said they will increase coverage in town centres and suburban shopping

hawker centres in Marine Parade, Bedok and Haig Road (near the Paya Lebar MRT station). A SingTel spokesman also said it would provide the service in areas

A SingTel spokesman also said it would provide the service in areas where there is demand, including the heartland.

As the reach spreads, businesses are

So it is \$1.80 for chicken and codening on to providing year-added services.

At the man spread, businesses are spread, businesses are spread, businesses are work and the unmore carefules also unmore carefules.

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added Value
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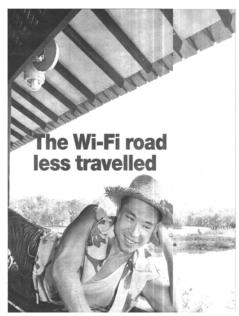
CUSTOME'S.
Ken Chan, CEO of Kolt, one
for the three preview Wift
senice providers here, on
Wift bring envisible or it

which the Wift is meant that the
three Wift is providers.

which goes towards subsidising the service for consumers who get it for free.

"We balance the free service with the paid service for businesses so it is more sustainable," said Ken.
"In the end, we want more people

uenc@sph.com.s



### Six quirky places to surf

1 Sungei Buloh Wetland Reserve (main picture)

Not all areas of the Sungei Buloh Wetland Reserve are covered by the free Wi-Fi network. However, there is a little but — Main Hide 1A – where you can get Wireless@SG signals.

Located right at the entrance to the reserve, after the welcome area, the shady but is where you can sit on high benches and surf while gazing into the modifiats frequented by migratory shorehirds.

Some of the species you can spy include the White-throated Kingfiaber, the Pacific Swallow and the Little Egret. Apart from going online to find out more about our feathered friends, park visitors can also post pictures of the birds on their favourite photo sites. There are lots of little bugs and critters though, so do slather on insect repellent.

on their favourite photo sites. There are lots of little bugs and critiers though, so do slather on insect repellent. Another area where you can receive Wireless@SG signals is the Aerie Tower. A 20-minute track from the entrance, the 18m tall tower gives a ponoranic view of the nature reserve with views of Johor

A word of warning: Oundoor hotspots are more prone to failures because bad weather can disrupt the supply of power needed by the wireless routers. So you might not want to make that trek to the tower with a mission to surf. Rather, just cerior the view.



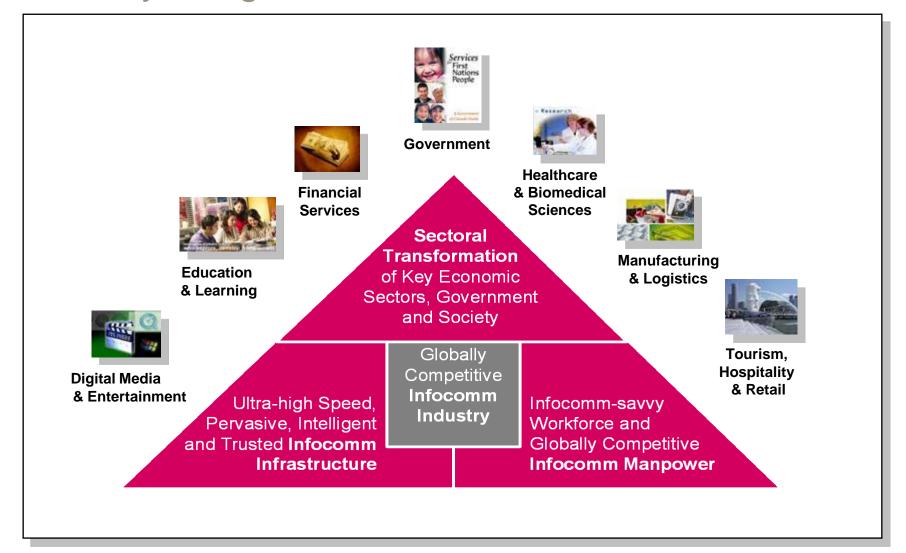








## Transform Key Economic Sectors, Government and Society using Infocomm



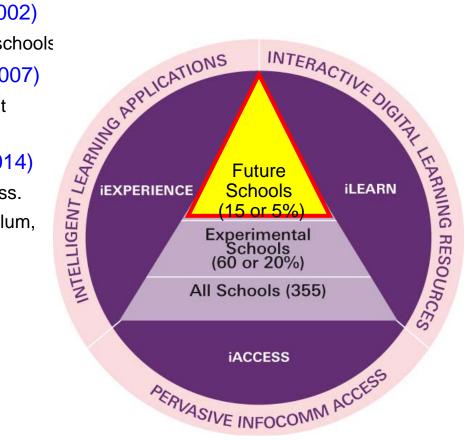
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### Transforming Education & Learning

Vision: Foster an engaging learning experience to meet the diverse needs of learners in Singapore, through the innovative use of infocomm

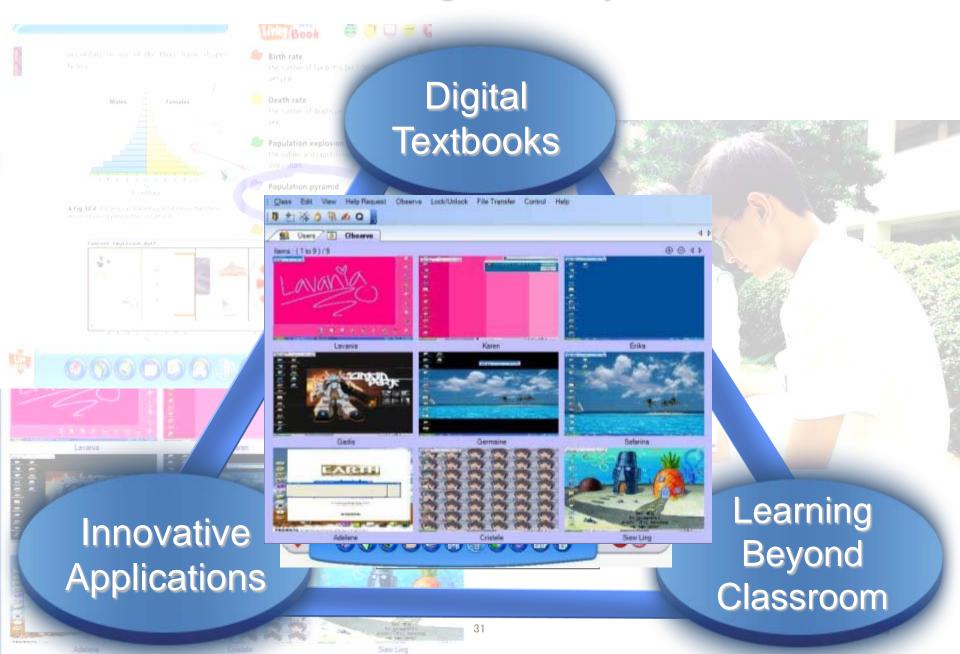
- 1st Masterplan for IT in Education (1997 2002)
  - To build an IT-rich learning environment in schools
- 2nd Masterplan for IT in Education (2002 2007)
  - To integrate IT into curriculum to bring about engaged learning
- 3<sup>rd</sup> Masterplan for IT in Education (2009 2014)
  - To make ICT central to the education process.
  - Strengthening integration of ICT into curriculum, pedagogy and assessment







### BackPack.NET - New Age Literacy



### Digital Opportunities for All and Building an iNclusive Digital Society

### Elderly



**Needy Students** 



People with Disabilities



CitizenConnect to provide Internet access and personal onsite support to those with difficulties transacting online

Consumer Education- Helping Bridge the

Digital Divide



BOOSTING I.T. MANPOWER ST-27

### Govt to pay for career switch





got to be connected



BT, 27/04/2000, P 13

**Multilingual** 

Content

### \$20m scheme for infocomm 'converts'

Programme to train professionals from other disciplines

The Strategic Manpower Conversion Programme (SMCP) is one of the programmes under the Man- is a global shortage," said power 21 (M21) Blueprint. Chan Heng Kee, deputy divi-Tanashad in Assesset lost size of diseases MOM

be enough, "It is not easy to attract foreign talents, especially IT talents where there

E-ambassador **E-communities** 

> To date, 29 organisations have expressed interest in the scheme. They include CPF Board, Informatics, National Computer Systems, SingTel, DBS. AsiaOne. Andersen



### Some Key Learnings

- ICT is a strategic <u>enabler</u> in economic development and Government plays a leading role in the exploitation of ICT
- eGovernment is about leveraging ICT to deliver value to its customers and citizens
- Planning & implementation of eGovernment require a <u>"whole-of-government"</u> mindset
- Strong <u>partnerships</u> with the ICT industry, private and people sectors are essential to success



### Thank You

For more information, please contact:

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