

SINGAPORE - *Your Partner in Infocommunications*

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Informatization of S'pore

- ◆ **Singapore's computerisation plan started in 1980**
- ◆ **Achieved high level of "E-readiness" by 1998**
 - ▶ high penetration rates of telecommunications, PC and Internet use
 - ▶ pervasive use of IT by government & businesses
 - ▶ IT-savvy population
 - ▶ national broadband infrastructure with 99% coverage islandwide

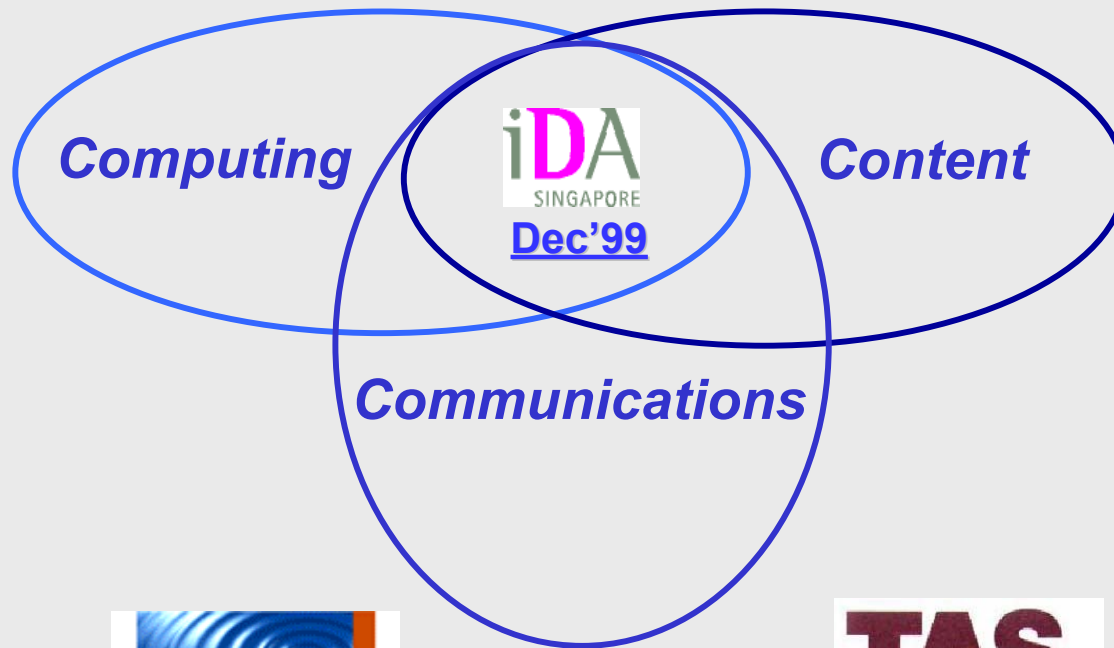


Convergence

Convergence in technologies



*Convergence in businesses;
Dramatic industry restructuring*



National Computer Board



**Telecommunications
Authority of Singapore**

Infocomm 21 Vision



**To transform Singapore into a vibrant
and dynamic Global Infocomm Hub
with a thriving e-Economy and
IT-savvy e-Society**

Infocomm 21 Masterplan

3 key thrusts :

- ① **Bring Singaporeans online**
e-powering the People
- ② **Bring Singapore businesses online**
e-powering the Private Sector
- ③ **Bring Singapore government online**
e-powering the Public Sector

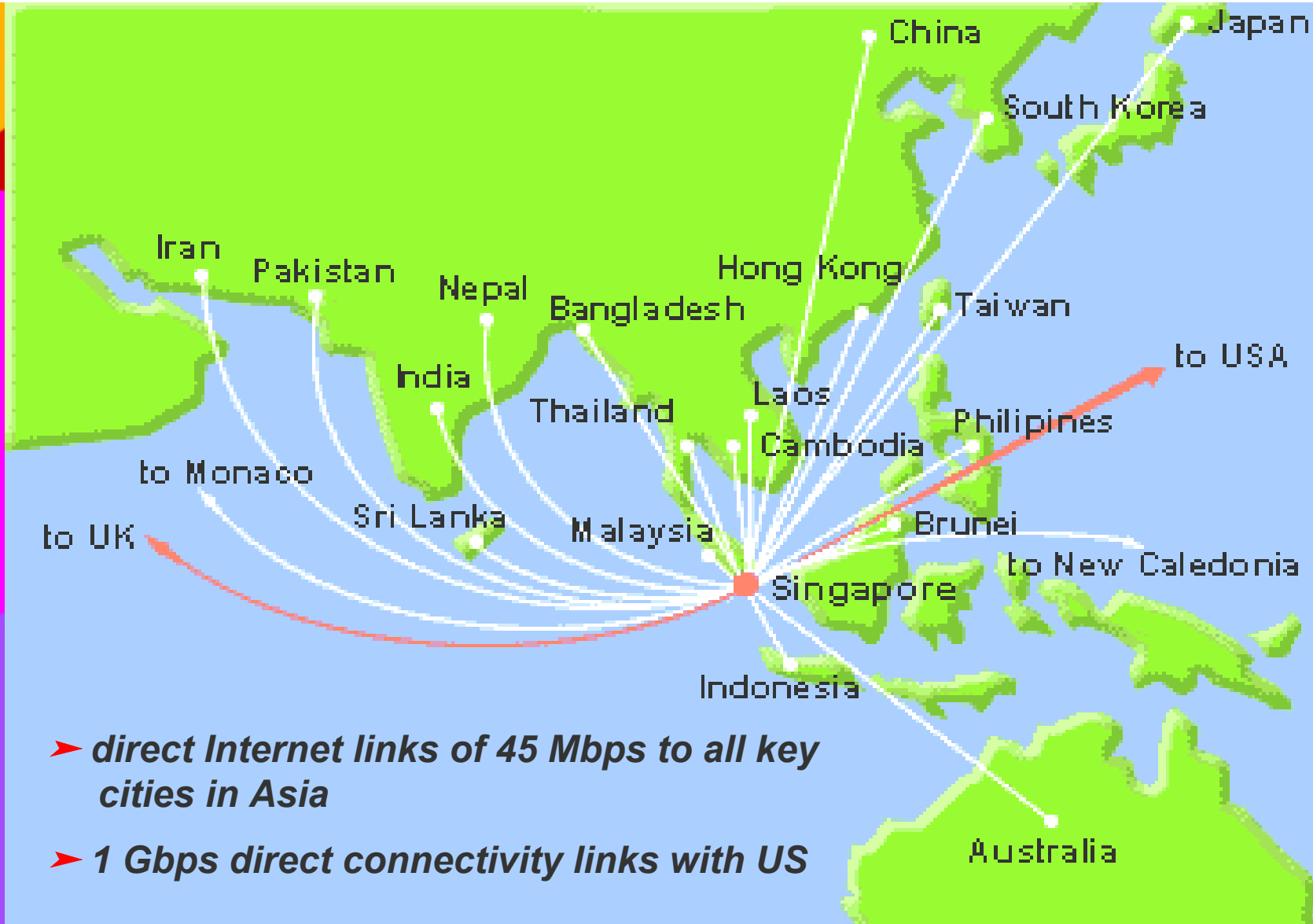


Liberalisation of Telecoms Sector

- ◆ Fully liberalised on 1st April 2000
- ◆ Over 200 licenses issued to facilities-based operators and services-based operators
- ◆ Total capital investment of US\$0.5 billion over next five years

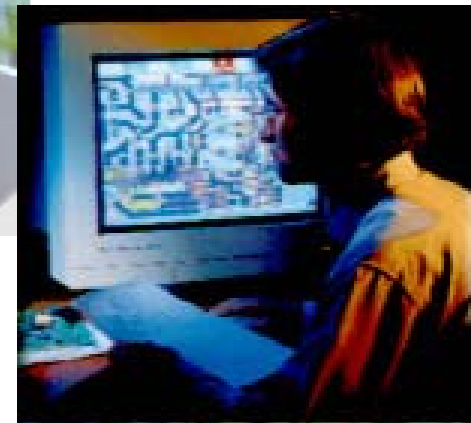


High Speed Connectivity, Extensive Global Reach



Development Programmes

- ◆ **Programmes were implemented to attract leading Infocomm players to Singapore**
 - ▶ Key Sectors : Telecommunications, Wireless, Digital Media, Software & IT Services and Internet Data Centres
- ◆ **Provide platform for companies to participate in projects & pilots**
 - ▶ Facilitate market access development through joint market research activities
 - ▶ Jumpstart the development of new and innovative technology & services



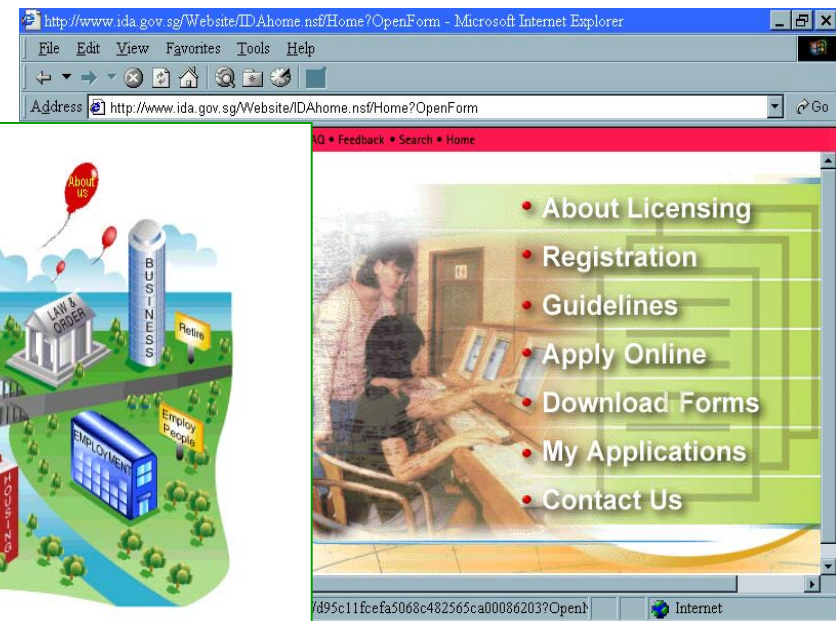
E-Powering the Government

◆ Aim to be one of the best eGovts in the world

- ▶ Widest range of online government services
- ▶ User-centric rather than Agency-centric
- ▶ Integrated one-stop service

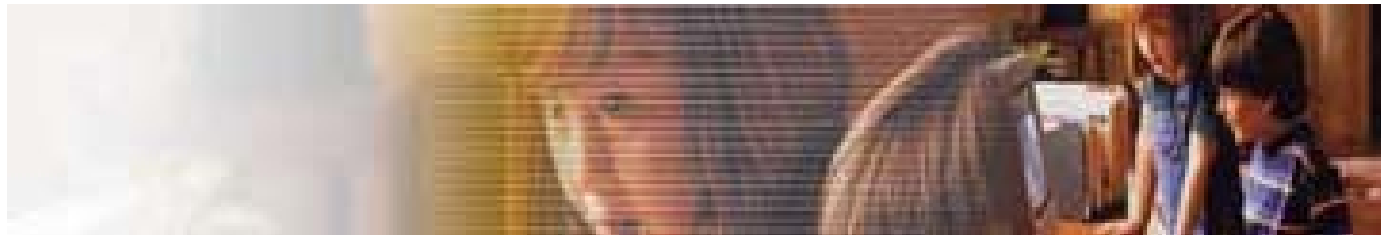
◆ e-Government Action Plan

- ▶ Launched in Jan 2000
- ▶ US\$1 billion in investment



Infocomm-savvy Society

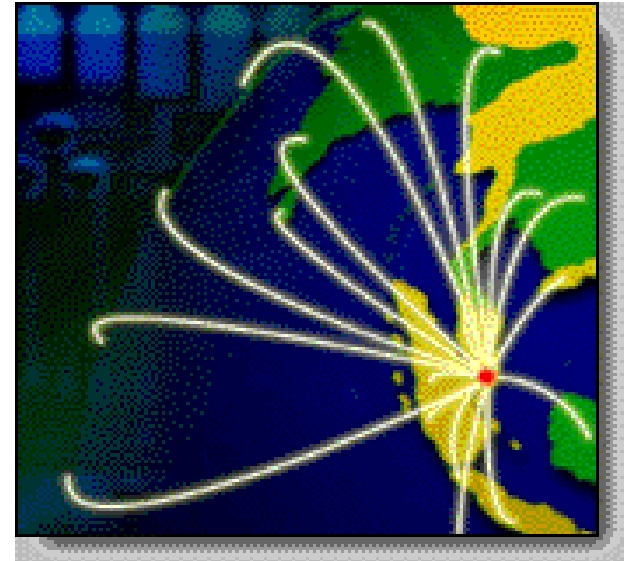
- ◆ All Universities and Polytechnics are wired campus-wide
- ◆ Student to PC ratio of 2:1 in secondary and primary schools
- ◆ 30% of school curricula to be IT-based
- ◆ Basic IT literacy training for workers, retirees, housewives, unemployed and disabled
- ◆ “Easy PC Plan” for low-cost PC purchase



Where We Are Today



- ◆ **Recognised by Economic Intelligence Unit (EIU) in May 2001 for high standard of e-readiness**
 - ▶ **S'pore ranks “Top in Asia” for e-readiness**
 - ▶ **Placed No.7 globally among 60 countries**



Looking Forward

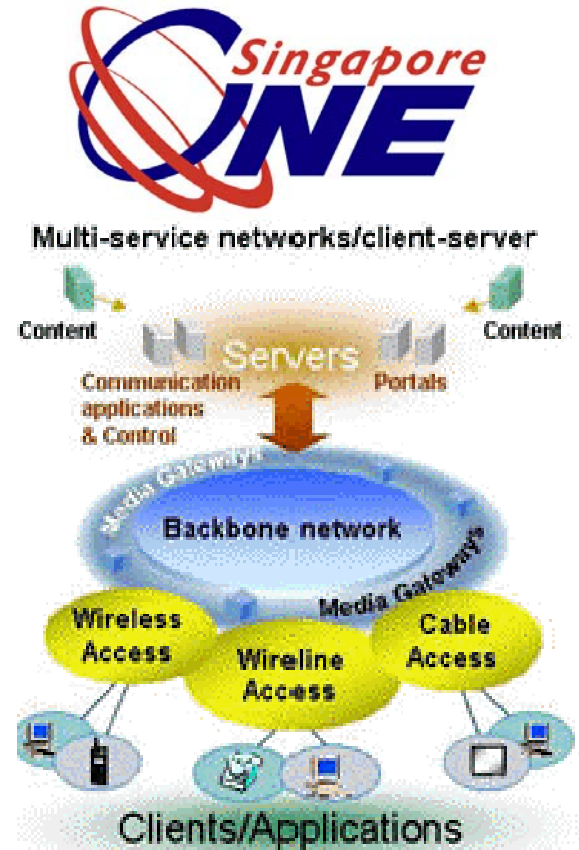
◆ Key Sectors of Development :

- ▶ Broadband
- ▶ Wireless
- ▶ Internet Data Centres
- ▶ E-commerce
- ▶ E-government



Broadband Industry

- ◆ **Mass Adoption Phase :**
 - ▶ 99% islandwide infrastructure
 - ▶ Over 300 industry players
 - ▶ 300,000 users
- ◆ **Six access service providers**
- ◆ **Multiple access options**
 - ▶ Fibre to the Curb, ADSL and Cable modem access, ATM backbone
- ◆ **Local capability spanning from content & applications development to delivery**



Broadband Development

- ◆ **Local companies in collaboration with international industry players from China, Japan, US, Korea & Australia**

MEDIACORP



- ◆ **Over 40 schools integrating broadband in teaching & learning**
- ◆ **Broadband trials currently being conducted**
 - ▶ Singapore Power and SP Telecommunications in trial projects involving Voice over IP, LAN and High-speed Internet Access services

Wireless Industry



◆ **Allocated 3G licenses to 3 telco operators**

◆ **The “Wired With Wireless” Programme was launched to:**

- ▶ Proliferate technological innovation
- ▶ Develop exportable wireless products & services
- ▶ Develop leading edge mobile and communications manpower
- ▶ Promote mass adoption of a wireless lifestyle



Wired With Wireless

◆ **Assists local & international players to use S’pore as a test-bed for innovative developments**

BLUETOOTH™



Wireless Developments



- ▶ US\$18 mil investment on Global Wireless Internet Centre for development of wireless Internet and mobile commerce products/services
- ▶ Joint Partnership with Cisco System, iPin, Nokia, Oracle, Portal Software, Sun Microsystems etc
- ▶ Focus not only on existing technology but also on future services for GPRS, Edge and 3G



- ▶ Joint project with Centre for Wireless Communications to develop "DelphiPad", a 3G mobile terminal prototype
- ▶ Another project with goMobile to develop "Wired Mobile", a telematics product for the US & Europe market



- ▶ Developing wireless applications with Nanyang Polytechnic for use on mobile devices such as WAP phones or PDAs



E-Commerce

◆ Aim to grow S'pore into a global e-business hub

	<u>1999 (USD)</u>	<u>2000 (USD)</u>
▶ B2B transactions	\$21 billion	\$ 50 billion
▶ B2C transactions	\$80 million	\$0.6 billion

◆ Encourage use of secure e-business infrastructure such as Public Key Infrastructure

- ▶ encrypts and authenticates online transactions



Bringing Businesses Online

◆ Formed Security Standards Technical Committee

- ▶ recommends IT security standards



◆ Some success stories include:

▶ Smartcards by NETS

- ▶ CashCard, the nationwide e-purse
- ▶ can be used for cash withdrawals, payment of carpark fees, payphones, mobile phones, in-vehicle units etc



▶ Digital Rights Management

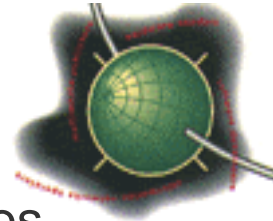
- ▶ clearing house & backend solutions by Mecurix for online and offline distribution of music & published content
- ▶ one of the first in Asia to provide DRM services



Bringing Businesses Online

▶ PORTNET by PSA Corporation

- ▶ single point-of-entry from ordering, documentation, facilitation of fulfilment, tracking to community services
- ▶ 7000 users; over 69 million transactions
- ▶ extended to overseas partners, incl. DaLian Container Terminal



▶ Intelligent Building System by Eutech Cybernetics

- ▶ An integrated building system solution that allows remote monitoring of facilities in multiple buildings



Internet Data Centre

◆ Singapore - an ideal hub for IDCs

- ▶ excellent broadband infrastructure
- ▶ good international connectivity
- ▶ a multi-racial and cultural population
- ▶ large number of MNCs



◆ Over 20 IDCs that support whole spectrum of services

- ▶ Provide Web to ASP hosting, Content Delivery, Co-location, Management Services, Security & Disaster Recovery
- ▶ Content hosting space expected to grow 6x to 1.5 million sq ft by 2001 (Business Times, Sept 2000)
- ▶ Regional and international Points of Presence able to serve overseas markets

Manpower Development

◆ Critical Infocomm Technology Resource Programme

- ▶ to produce 1,000 professionals in emerging, critical and specialised skills

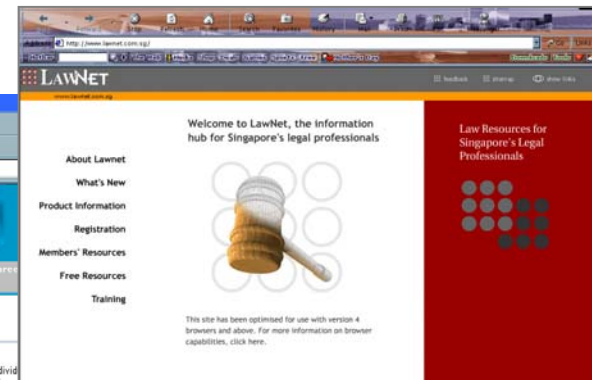
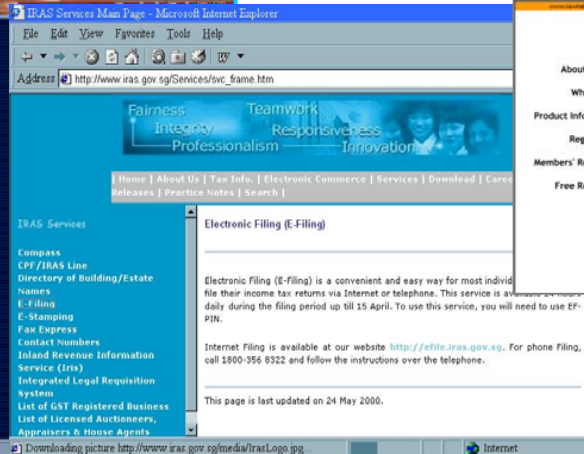
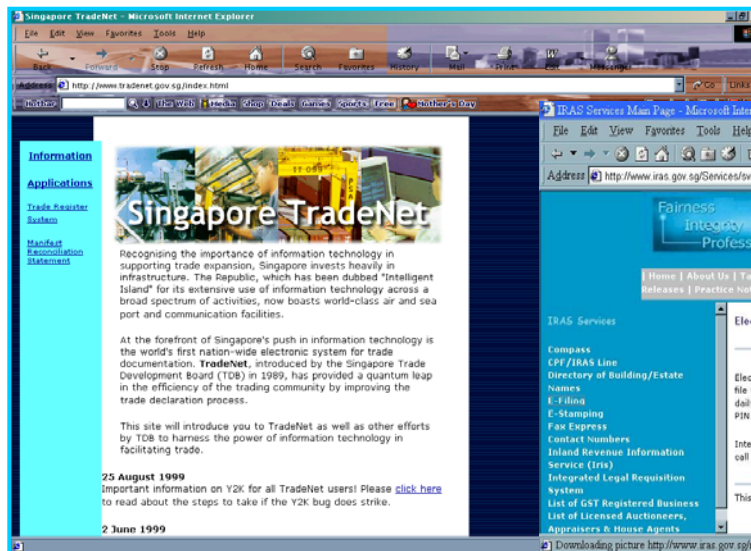
◆ National Infocomm Competency Centre

- ▶ joint effort between IDA, Singapore Computer Society & Min of Manpower
- ▶ to certify specific competencies and skills of Infocomm professionals
- ▶ covers Internet Development, Security Management & e-Business



Bringing Government Online

- ◆ **Electronic Service Delivery by govt agencies**
- ◆ **TRADENET by S'pore Network Services (SNS)**
 - ▶ a multiple award-winning electronic trade documentation system for Singapore's imports & exports
 - ▶ SNS also implemented LawNet & online services for Central Provident Fund, Inland Revenue Authority



Conclusion

- ◆ **Singapore is well-poised to be a global infocomm hub for the Asia Pacific**
 - ▶ Leverage on our excellent infrastructure, international connectivity, pro-business environment & skilled manpower to explore business opportunities
- ◆ **We welcome joint partnerships between Singapore, China and Asia in infomatisation projects**





**Singapore , Your Partner in
Infocommunications**

Thank You

www.ida.gov.sg