

June 2007

FACT SHEET

Updates on Singapore's 10 Year Infocomm Masterplan - Intelligent Nation 2015 (iN2015)

SECTION (1): iN2015 – HIGHLIGHTS AT A GLANCE

iN2015 Key Thrusts	HIGHLIGHTS
Infrastructure Development	<ul style="list-style-type: none"> • Wireless@SG went “live” in December 2006. To date, it has more than 3,400 hotspots covering Singapore to serve some 428,000 subscribers. • 12 companies and consortia pre-qualified to deploy Next Generation National Broadband Network. • National Cyberthreat Monitoring Centre established in March 2007. • National Grid Advisory Council formed in June 2007 to guide Singapore's Grid developments.
Enterprise Development	<ul style="list-style-type: none"> • Infocomm industry revenue increased 20 per cent to S\$45.4 billion in 2006, with export revenue accounting for S\$28.98 billion. • “Infocomm Singapore Innovations in Action” brand for made-by-Singapore infocomm products and solutions.
Manpower Development	<ul style="list-style-type: none"> • Total infocomm manpower increased from 111,400 in 2005, to 119,700 in 2006. • 140 schools now have Infocomm Clubs. 36 National Infocomm Scholarships were awarded in 2006.
Cluster Transformation	<ul style="list-style-type: none"> • <u>Finance</u>: New Singapore Standard for Contactless ePurse Application, for greater convenience in e-payments. • <u>Education</u>: Five “Future Schools” selected by the Education Ministry to test-bed new ways to leverage infocomm for learning. • <u>Healthcare</u>: Since its launch in October 2006, the Integrated Clinic Management System has 315 General Practitioner clinics on board. • <u>Digital Media & Entertainment</u>: Request For Information out till 25 July 2007, for proposals to develop the Digital Assets Marketplace. • <u>Tourism, Hospitality & Retail</u>: Digital Concierge pilot launched today. • <u>Manufacturing</u>: TradeXchange will be ready in October 2007. • <u>E-Govt</u>: To date, more than 150 government services can be delivered via the mobile channel.
Bridging Digital Divide	<ul style="list-style-type: none"> • NEU PC Plus: About 3,400 applications have been received for the S\$285 NEU PC Plus package that comes with three-years of broadband access.

SECTION (2): iN2015

BACKGROUND – WHAT IS INTELLIGENT NATION 2015 (iN2015)

- iN2015 is Singapore's 10-year infocomm masterplan that was launched in June 2006. It holds a bold vision -to transform the country into an intelligent nation and global city powered by infocomm. It recommends the way forward for Singapore, into a future where infocomm will revolutionise and become intrinsic in the way people live, learn, work and play. New possibilities will be unleashed for Singapore's industries, economy, and society, empowered by next-era technologies.

Led by the IDA, iN2015 is a multi-agency effort that engages the people, private, and public sectors.

CONTRIBUTING TO INFOCOMM BUZZ

- **Today, Singapore continues to remain at the top in global rankings:**

International Infocomm Rankings	2006	2007
World Economic Forum Global IT Report	2 nd	3 rd
Accenture's study on government customer service	-	1 st
Economist Intelligence Unit's e-Readiness	13 th	6 th
IMD's Technology Infrastructure ranking (from IMD's World Competitiveness Report)	3 rd	2 nd

- **Since the launch of iN2015 in June 2006, the infocomm sector in Singapore has become more vibrant. Some snapshot figures:**
 - Infocomm industry revenue grew by 20 per cent to hit S\$45.4 billion in 2006.
 - The infocomm export market experienced a record growth of 31.4 per cent to hit S\$28.98 billion in 2006.
 - Infocomm manpower increased by 7.5 per cent from 111,400 in 2005 to 119,700 in 2006.
 - Almost all enterprises (with 250 employees or more) have established Web presence, as well as used the internet and broadband in 2006.
 - 88 per cent of homes with school-going children own computers.
- Similarly, the telecoms sector in 2006 experienced greater buzz, as follows:
 - Basic broadband plans (512kbps, unlimited) are available for as low as S\$22.90 (as of April 2007).
 - Breakthrough in broadband service plans with the introduction of HSDPA (3.5G), WiMAX services, and VoIP.
 - As of April 2007, 68.4 per cent of homes in Singapore are using broadband.
 - Mobile phone penetration has exceeded 100 per cent to reach 108.1 per cent in April 2007.

- 3G subscriptions have reached about 1.14 million in April 2007.

SECTION (3): POWERING THE ECONOMY

REALISING THE VISION

The iN2015 masterplan is being rolled out along four strategic thrusts, with updates as follow:

STRATEGIC THRUST (1)

Establish an ultra-high speed, pervasive, intelligent and trusted infocomm infrastructure

- To prepare Singapore for even greater digital opportunities from 2015, Singapore's Next Generation National Infocomm Infrastructure will comprise a wired network that will provide individuals with ultra-high broadband access speeds of 1Gbps in every home, school and business, and a high-speed, pervasive wireless network for connectivity everywhere else, islandwide.

UPDATE – A FUTURE-PROOF INFOCOMM INFRASTRUCTURE

- **Wireless@SG** – This is the Government's wireless broadband programme to extend broadband access to public places islandwide, grow the local wireless broadband market, and catalyse broadband adoption. Proposals from iCELL Network Pte Ltd, QMax Communications and Singapore Telecommunications Ltd, were accepted by the IDA to deploy the wireless network.

Wireless@SG was launched a month ahead of schedule in December 2006, and its free access period was extended by the three operators from two to three years. Singaporeans and visitors to Singapore can now enjoy free access until December 2009.

Wireless@SG's deployment will be completed by September 2007.

Numbers to Note:

- The number of Wireless@SG hotspots in Singapore is set to increase by more than eight times, from 600 to about 5,000 by September 2007. There are more than 3,400 Wireless@SG hotspots around the island today.
- The number of Wireless@SG subscribers has exceeded the original target of 250,000. As of May 2007, there are more than 428,000 subscribers. The number of active users has also grown from 31,582 in Dec 2006 (18% of subscriber base) to 121,440 (28% of subscriber base) in May 2007.

- Since Dec 06, Wireless@SG users have been clocking longer hours of usage - from an average of 2.1 hours per month in December, to about 3.1 hours per user per month today. Usage centres on e-mails, Instant Messaging and Web browsing.
- **Next Generation National Broadband Network (Next Gen NBN)** - This is the wired component of Singapore's Next Generation National Infocomm Infrastructure that is envisaged to offer ultra-high speeds of over 1 Gbps and more. In December 2006, IDA issued an invitation to industry players to participate in a Pre-Qualification Exercise and Competitive Dialogues. That process was the first step in the preparation for a formal Request For Proposal (RFP) for the Next Gen NBN. Following that, 12 companies and consortia have been pre-qualified to deploy the network and the Competitive Dialogues are underway. The Competitive Dialogues allow the pre-qualified bidders to provide feedback on a proposed set of RFP parameters and specifications, which will serve to refine the eventual RFP. The formal RFP will be issued in August 2007. The formal RFP is expected to be awarded by the end of this year.

Numbers to Note:

- 95 per cent of all homes and businesses will have access to the Next Gen NBN by 2012.
- **National Trust Framework (NTF)** - The NTF was announced alongside the Next Gen NII in June 2006 to address identity, security and privacy issues. Two key projects to be rolled out under the NTF are the National Authentication Framework and the National Cyberthreat Monitoring Centre.

The National Authentication Framework (NAF) aims to enhance online security and increase the confidence of individuals accessing online services such as Internet banking. IDA is spearheading the programme, together with 60 industry captains and government agencies, to guide the development of governance, business, technical, legal and operational frameworks that will form the NAF. IDA is currently exploring the development of a NAF that addresses both authentication and identity-related issues.

The National Cyberthreat Monitoring Centre went 'live' in March 2007 as scheduled. One of the first in Asia, the centre monitors the Government networks for cyber threats real-time and round-the-clock.

- **National Grid** – The IDA is currently in talks with Government agencies and industry players to develop a commercial Grid infrastructure that will equip enterprises with on-demand access to compute resources, such as software, CPUs and storage, on a pay-per-use basis. When ready by end-year or early 2008, the "National Grid" will place high performance computing, software-as-

a-service, and huge storage capabilities in the hands of businesses, at lower costs than if they were to spend on and maintain the numerous servers themselves. This means that grid computing becomes more affordable for SMEs too. The National Grid, together with Next Gen NII, will complete the nation's infocomm infrastructure and enable our industries to truly harness ICT for growth.

A high-level National Grid Advisory Council (NGAC) was formed earlier in June 2007, to guide Singapore's Grid developments, including that of the National Grid.

STRATEGIC THRUST (2)

Develop a globally-competitive infocomm industry

- iN2015 will enhance the capabilities of Singapore's infocomm enterprises, to ensure their continued competitiveness, as well as advance, and entrench their standing in the global playing field.

UPDATE – MORE LOCAL INFOCOMM ENTERPRISES VENTURE ABROAD

- **Infocomm Enterprise Programme** – In January 2007, this programme was launched to help iLEs (infocomm local enterprises) develop their capabilities, as well as create intellectual property that can be exported to the world market. IDA will continue to encourage more partnerships between MNCs and iLEs to create intellectual property, and at the same time, will also facilitate the release of government-held intellectual property to iLEs.
- **Internationalisation Efforts** – In 2006, IDA facilitated in the overseas ventures of more than 70 companies, including ventures in Middle East and China. A second Singapore Solutions Centre (SSC) was also set up in Hangzhou in November 2006, to facilitate business collaborations in China. The first SSC is in Shanghai.

IDA has announced its intention to set up an office in Doha, Qatar to strengthen support for local enterprises keen on entering the Middle East market.

- **“Infocomm Singapore Innovations in Action”** – This unified brand was launched in January 2007 for “made-by-Singapore” infocomm products and solutions, in a bid to help Singapore's local infocomm industry collectively garner greater global mindshare. To date, a Singapore Infocomm Industry

Portal has gone 'live', providing a global platform to showcase our local enterprises' products and services.

Moving forward, there will be more concerted efforts with the Singapore Infocomm Technology Federation (SiTF) to push the brand to international markets, and enterprises can look forward to more overseas missions and participation in key international infocomm events.

- **Infocomm Industry Continues to Grow** – In 2006, Singapore's infocomm industry revenue increased by 20 per cent to hit S\$45.4 billion.

(Please refer to "Infocomm Industry Survey for 2006" for more details)

STRATEGIC THRUST (3)

Develop an infocomm-savvy workforce and globally-competitive infocomm manpower

- Infocomm talent is critical to drive the nation's economic competitiveness, especially when infocomm technologies are becoming increasingly intrinsic in our lives. iN2015 will groom a sustained, and growing pool of infocomm talent, as well as build an infocomm-savvy workforce who can innovatively use infocomm technologies to grow the economy.

UPDATE – SINGAPORE'S POOL OF INFOCOMM TALENT GROWS

- **Continued Infocomm Manpower Growth** – The number of infocomm manpower increased from 111,400 in 2005 to 119,700 in 2006. The infocomm workforce also continues to be highly-qualified, with 83 per cent equipped with tertiary education.

(Please refer to "Infocomm Manpower Survey for 2006" for more details.)

- **Grooming Talent: Infocomm Clubs** – In June 2006, there were just 40 schools that had Infocomm Clubs as part of their co-curricular activities for students. Today, there are 140 schools with Infocomm Clubs, totaling 6,443 members. Infocomm Clubs seek to nurture infocomm-savvy youths and cultivate their interest in infocomm as a career. The members come from primary schools, secondary schools, and junior colleges across Singapore. Infocomm Club students have had the chance to participate in many activities to expand their infocomm horizons, including engaging in spirited discussions with industry speakers from Lenovo, Cisco and Microsoft.

- **Grooming Talent: National Infocomm Competition (NIC)** – To add on to the efforts by the Infocomm Clubs, the NIC, held in 2006, attracted more than 2,000 students from over 100 schools, and saw the winners setting foot on Microsoft’s Redmond campus this June to meet with Bill Gates.
- **Grooming Talent – National Infocomm Scholarship (NIS)** – 36 NISs were awarded in 2006. In addition, IDA launched three flagship infocomm Master’s programmes, in collaboration with Singapore’s three local varsities and top overseas universities, to provide more learning opportunities for those keen on developing an infocomm career.

STRATEGIC THRUST (4)
Spearhead the transformation of key economic sectors, government, and society through more sophisticated and innovative use of infocomm. The key areas of focus are:

Digital Media & Entertainment	Education & Learning	Financial Services	Government Services	Healthcare & Biomedical Sciences	Manufacturing & Logistics	Tourism, Hospitality & Retail
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Empowered by infocomm, these key economic sectors can realise new business possibilities, expand their markets, and contribute towards greater economic growth for Singapore.

UPDATE – IN2015 INCREASES INFOCOMM USAGE & INNOVATION

- **Financial Services Sector** – In June 2006, the new Singapore Standard for Contactless ePurse Application, SS 518 CEPAS, was launched. Available for industry use, the SS CEPAS is a world's first nationwide interoperable micro-payment platform that bridges multiple sectors - in particular the transit and retail e-payment space. For Singaporeans, this means that they will soon enjoy the convenience of having a single card for making transit, motoring and retail payments instead of having multiple cards for the similar purpose of e-payment. This standard also levels the playing field for more card issuers such as banks and merchants to participate in the e-payment space.

Moving forward, IDA will be embarking on efforts to develop the next generation e-payments infrastructure. The aim is to reduce the number of paper-based transactions and double the transaction value of card-based payments, e-money schemes and mobile payments from S\$25 billion to S\$50

billion by 2010. IDA will focus on promoting the adoption of interoperable e-payments solutions, and supporting the development and deployment of innovative solutions for online commerce. We will also work with the industry to establish common standards and put in place common infrastructure for payment solutions that leverage new technologies like Near-Field Communications. More details will be shared by end 2007.

- **Education & Learning Sector** – Under the “Future Schools@Singapore” initiative, five schools were selected by the Ministry of Education in 2007, to test-bed new ways to innovatively leverage infocomm to enhance learning. By 2015, the number of “Future Schools” will grow to 15, and they will lead the rest to harness infocomm for learning. IDA issued a Call-For-Collaboration in May 2007, for the IT industry to architect and deploy infocomm solutions and infrastructure to meet the needs of the “Future Schools”. IDA expects to award the CFC end-2007.
- **Manufacturing & Logistics Sector** – Under IDA’s Collaborative High-Tech Manufacturing Programme that was launched since 2004, 10 major local manufacturers have connected to over 40 local suppliers and several hundred regional suppliers, to enable nearly S\$3.2 billion worth of annual transactions and cost savings of over S\$41 million.

Come October 2007, the sector can further look forward to TradeXchange, a one-stop integrated platform for companies to access B2B and B2G trade services.

- **Healthcare Sector** – In October 2006, a S\$15 million, four-year infocomm programme was launched to allow General Practitioners from different clinics to plug into the national healthcare network. The Integrated Clinic Management System programme enables seamless update and retrieval of patients’ records, and allows doctors to provide better care of their patients through real time access to timely and accurate patient information. To date, 315 GP clinics out of a total of 1,400 are participating in the programme.

In addition, the Ang Mo Kio-Thye Hua Kwan Hospital has successfully piloted an electronic nursing notes system. Nurses there can now make use of RFID technology to match the drugs to the right patients.

Tan Tock Seng Hospital is also trialing an alert system that enables their doctors to get critical lab test results via SMS. It will be quicker than the current manual system, to allow for rapid decision-making for treatment.

- **Tourism, Hospitality & Retail Sector** – When ready in 2008, the Digital Concierge will give every visitor to Singapore his “own concierge” service, with access to personalised information and services, anywhere, anytime, via

mobile networked devices. *(Please refer to Fact Sheet “Digital Concierge” for updates)*

- **Digital Media & Entertainment Sector** – IDA is currently inviting the industry to collaborate on initiatives to grow the sector. For a start, a Request For Information is on-going till 25 July 2007, to seek project proposals to develop the Digital Assets Marketplace programme.
- **Government Services Sector** – Since its launch last year, today, more than 150 Government services are now accessible via mobile devices. By 2008, IDA targets to provide close to 300 mobile Government services. To bring greater convenience for our customers, the One SMS initiative was introduced to provide the public and public agencies with a common SMS number, “74688” or SGOVT, to facilitate the deployment of SMS-based mobile Government services.

The number of CitizenConnect Centres have expanded from the initial five in November 2006 to 27 today. Citizens or residents who do not have access to, or need help in using the computer or the internet, can find aid at such centres in their neighbourhood Community Clubs.

The MyeCitizen portal has also been upgraded to allow both public and private sector services to be accessed from this single website. Since the launch in 2002, the number of subscribers has grown to more than 76,000. By September 2007, the portal will also be able to “recognise” its user’s profile and usage patterns to allow for greater personalisation.

Plans for a Unique Establishment Identifier (UEI) are underway. When ready by January 2009, the UEI will be issued to all establishments in Singapore – akin to the NRIC number for individuals – to make transacting with the Government easier. A multi-agency working committee has been formed to drive this project and a tender for the development of a UEI issuance system is expected to be awarded in the third quarter of 2007.

A GENIE (Government Executives in the New Information and Knowledge Era) showcase was launched in August 2006, to demonstrate technologies that are still under research and development, and to give a glimpse of how public officers’ work experience can be enriched with infocomm. By the fourth quarter of 2007, public officers can experience new technologies that will be incorporated by the partners of the GENIE showcase. By 2009, the showcase will exhibit 30 new technologies, have at least three new technologies piloted at public agencies, and see at least two new technologies adopted.

The IDA is leading the development of a Standard ICT Operating Environment (SOE) for the public sector. The SOE will bring about a common desktop, network and messaging environment to enable public officers to

work as One Government, and also improve operational efficiency. The tender for this closes on 21 June and is expected to be awarded by October 2007. The SOE will be fully implemented across the public sector by the fourth quarter of FY2010.

INFOCOMM FOR EVERYONE

- iN2015 will build an inclusive digital society by reaching out to all facets of society, so that no one will be left behind as Singapore moves towards realising its vision of an “Intelligent Nation and Global City, powered by infocomm”.
- **Update on Reaching Out to the Needy** – Since iN2015 pledged to help the needy cross the digital divide in June 2006, about 3,400 applications for the NEU PC Plus package have been received. The NEU PC Plus package comprises a desktop computer and three years of free broadband access for just S\$285.

Moving forward, IDA will introduce a further “plus” to the existing NEU PC Plus programme by Q1 2008. Called the INSPIRE Fund, this new scheme will allow 4,000 needy students over three years, to do community work in exchange for a fully-paid-for NEU PC Plus package.

- **Infocomm@SME** – IDA is also keen to help SMEs adopt infocomm, so that they can exploit infocomm to sharpen their competitive edge.

(Please refer to Fact Sheet “SME Infocomm Adoption Programme (Infocomm@SME)”, and “Business Infocomm Usage Survey for 2006” for more details)

FOR MORE INFORMATION

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