**June 2008**

## FACT SHEET

## Updates to the Next Generation National Infocomm Infrastructure

The Next Generation National Infocomm Infrastructure (Next Gen NII) was announced by Prime Minister Lee Hsien Loong in February 2006. It is one of the four strategic thrusts that supports the ten-year iN2015 master plan to transform Singapore into an intelligent nation and global city, powered by Infocomm. Next Gen NII comprises the complementary Next Generation National Broadband Network and the Wireless@SG networks to ensure Singaporeans enjoy seamless connectivity both wired and wireless.

### (A) Next Generation National Broadband Network

### Open Access Industry Structure

The Next Generation National Broadband Network (Next Gen NBN) will ready Singapore for an infocomm-enabled future. It will offer pervasive, competitively priced ultra-high broadband speeds of up to 1Gbps and beyond to business users at the workplace, as well as to Singaporeans at home, schools and learning institutions, and other premises. It is a strategic enabler that will transform the way we work, live, learn and play.

It is envisaged that the Next Gen NBN will comprise three key conceptual industry layers. Undergirding the Next Gen NBN is the Network Company (Next Gen NBN NetCo), which will be responsible for the design, build and operation of the passive infrastructure layer. Leveraging the Next Gen NBN NetCo's passive infrastructure would be the Next Gen NBN Operating Company (Next Gen NBN OpCo), which is responsible for the design, build and operation of the active infrastructure to provide wholesale broadband connectivity to other operating companies and downstream operators, in particular, Retail Service Providers (RSPs). These RSPs will in turn compete to provide innovative services to end-users.

To spur greater vibrancy and competition at the services layer to benefit end-users, it is critical to ensure for the Next Gen NBN to ensure effective open access to the infrastructure by downstream operators. As a policy, the Government therefore decided on separation between the different layers of the Next Gen NBN to achieve this.

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The Next Gen NBN NetCo will therefore be required to be Structurally Separated from downstream operators. Similarly, the Next Gen NBN OpCo would have to be Operationally Separated from the downstream entities and treat them equally, on a non-discriminatory basis.

## Project Timeline

The Next Gen NBN NetCo and OpCo Request-for-Proposals (RFP) were issued on 11 December 2007 and 7 April 2008 respectively. The Next Gen NBN NetCo RFP closed on 5 May 2008 with submissions from Infinity Consortium and OpenNet Consortium. IDA is now evaluating the submissions and expects to appoint the Next Gen NBN NetCo in the third quarter of 2008.

Key project dates are as follows:

| Milestones | Timeline |
| --- | --- |
| Issue of the Next Gen NBN NetCo RFP | 11 December 2007 |
| Issue of the Next Gen NBN OpCo RFP | 7 April 2008 |
| Next Gen NBN NetCo RFP Submission Deadline | 5 May 2008 |
| Next Gen NBN OpCo RFP Submission Deadline | 20 August 2008 |
| Award of Next Gen NBN NetCo RFP | Q3 2008 |
| Award of Next Gen OpCo RFP | Q1 2009 |

## Next Generation Services

Nationwide availability of Next Gen NBN is expected by 2015 although enterprises and consumers can begin to look forward to a range of new and exciting next generation services from as early as 2010. Next Gen NBN will allow RSPs to deploy services easily on the network, catalysing the development and growth of the services market which will in turn lead to a myriad of choices for end-users. Some of the next generation services that could ride on Next Gen NBN include:

**End-User Services Selection Portal** - The End-User Services Selection portal (SSP) is an interactive electronic services menu accessible via computer and TV screens, which will allow end users the freedom to choose and subscribe to their next generation services (for e.g. IPTV, Voice-over-IP and video conferencing services) on an on-demand basis. With the SSP, end-users will be able to access multiple RSP service menus to view all available services before deciding which are the ones they want to subscribe to or unsubscribe from.

**Telemedicine** – Next Gen NBN will enable the seamless and secure exchange of information among major hospitals, clinics and patients at home. Singapore's

healthcare providers will also be able to leverage the pervasive and ultra-high speed Next Gen NBN to improve home medical care through services such as remote medical consultation, ensuring healthcare continuity while eliminating the need for patients to be present physically.  Remote consultations through high-definition video conferencing will reduce the frequency of a patient's visit to the clinics, providing increased convenience for home-bound patients especially for those with chronic diseases.  This will be timely and beneficial with Singapore's ageing population.

**High Definition IPTV (Internet Protocol Television)** – With the ultra-high speed broadband on Next Gen NBN, consumers will be able to watch their favourite High-definition TV channels with enhanced interactive features such as on-demand movies, polling, time-shifting and electronic programming guides.  End-consumers will also be able to personalise their TV viewing to suit their lifestyle requirements.

**Fast Upload/Download Speeds** – With blazing speeds scalable to 1Gbps and beyond, sharing and uploading/downloading of files will now be significantly faster on Next Gen NBN.  For example, users will be able to download movies in a matter of minutes rather than hours. The ultra-high speed network also means users can utilise several high-bandwidth applications simultaneously. Among the many applications are Software-as-a-Service, remote data backup and file restoration, and online gaming.

**Homeshoring** – Homeshoring is the use of home-based workers to field various types of desk-bound work such as customer call centres and technical helpdesks.  Not only will employees have the flexibility to work from home, stay-at-home mothers, the disabled and retirees will also able to leverage Next Gen NBN to work as "virtual agents" from home.  This can help reduce labour and facility costs for enterprises and at the same time lower transportation expenses for individuals**.**

## (B) Wireless@SG

Wireless@SG launched its services in December 2006 with the aim of extending broadband access beyond homes, schools and offices to public places.  As at April 2008, there are more than 7,200 hotspots covering Singapore, offering everyone free wireless access in public areas.  This includes high human-traffic areas such as at the Changi International Airport, Central Business District, downtown shopping belts like Orchard Road and residential town centres.

Currently, there are some 850,000 subscribers with access to the network and on average, Wireless@SG users are each chalking up almost three hours every month on the network, using it to work, check e-mails, blog and surf the Internet.

The Wireless@SG operators continue to look for ways to enhance the network, including offering more services and exploring innovative applications that could

ride on Wireless@SG. Together with various industry partners, including Microsoft, Nokia and SecureAge, the three operators are now:

(i) Offering all Wireless@SG users a Virtual Private Network service; and
(ii) Conducting a trial on a Seamless and Secure Access service

## (i) Wireless@SG Virtual Private Network Service

Virtual Private Network (VPN) is a security service jointly provided by SecureAge and the three Wireless@SG operators. It is now available to all Wireless@SG users for free until December 2009.

The VPN service provides secure wireless access by encrypting the data transmitted over the Wireless@SG network, so that users can have greater peace of mind while surfing the Internet and using applications such as e-mail, instant messaging and file-sharing.

For details on how launch and use the VPN service, log onto www.infocomm123.sg

## (ii) Seamless and Secure Access Trial

Seamless and Secure Access (SSA) is an alternative method of accessing Wireless@SG. It enables user devices to connect to the network automatically whenever it is in a Wireless@SG hotspot, without the need to key in any user credentials. Data transmitted over the network is also automatically secured.

Working with Microsoft and Nokia, the Wireless@SG operators are offering this SSA trial to 300 existing Wireless@SG subscribers who own devices that can support SSA. Trial locations include Suntec City Mall, Vivo City and Wisma Atria.

Wireless@SG subscribers interested to participate in the trial, can vist their respective operators' web sites for registration procedures, trial locations, list of supportable devices and guide on how to start using SSA.

| Wireless@ SG Operator | Website |
|---|---|
| iCELL Network Pte Ltd | http://www.icellwireless.net/single-access |
| QMax Communications Pte Ltd | http://wsg.qmax.com.sg/ssa.aspx |
| Singapore Telecommunications Ltd | http:// www.singtel.com/wirelessSG |

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