



6 April 2004

Mr Andrew Haire  
Senior Director (Policy and Competition Development)  
Infocomm Development Authority of Singapore  
8 Temasek Boulevard  
#14-00 Suntec Tower Three  
Singapore 038988

Dear Sir

**Feedback On Consultation Paper “Deployment of Wireless Broadband Technologies in Singapore”**

Thank you for the above paper which was well written and comprehensive. There are some comments and views that I would like to share with the IDA. Before doing so however, I'd like to give a brief background of my company so that the following comments/views can be seen in context.

SurgoSystems is a Singapore-incorporated company which provides a secure data storage and retrieval service for small and medium enterprises over broadband Internet. It has developed its own software for the above purpose. It has been marketing its service, called “SafelyAway”, locally for the past three years and is currently exploring setting up similar services in Malaysia, Philippines and Hong Kong.

The following are my comments:

*Views and comments on the potential of and benefits arising from the deployment of wireless broadband technologies, the likely services/applications to be deployed and the potential demand from businesses and consumers.*

It is quite apparent that substantial amount of work still needs to be done before deployment of wireless broadband can be realised. Not only do you have issues pertaining to technology to contend with but also the complex spectrum auctioning process.

Taking into consideration the geography of Singapore and the excellent wired infrastructure already in place, the potential of and benefits arising from wireless broadband are not immediately apparent especially weighed against the implementation effort and risk. Perhaps only a handful of services or applications can benefit from it. Furthermore, if the resulting differential cost between wired and wireless is high, it will undoubtedly dampen the latter's demand.

Please note that I have visited a Malaysian ISP currently rolling out wireless broadband in the Klang Valley on both the 2.5 GHz spectrum (for consumers up to 512 Kbps) and 3.5 GHz spectrum (for corporate up to 3 Mps) and came away suitably impressed with the performance. However, they should not be used as a model as Malaysia, unlike Singapore, does have significant problems in the "last mile".

In my view, from a practical and business perspective, there is no urgency in deploying wireless broadband in Singapore until implementation risks fall to an acceptable level.

*Respondents are also invited to comment on any other issues not covered in this consultation document but which are considered to be relevant in the deployment of wireless broadband technologies.*

On a technical note, although a wireless base station can cover several square kilometers, equal consideration should be given to the so-called “return path”. To elaborate, since communication is a two-way process, the user’s computer also needs to transmit signals back to the base station. However, it probably will not have sufficient power to do so. Therefore, intermediate receiver stations needs to be set up over the Island to effect the return path. Perhaps this issue can be addressed in subsequent papers.

If going “wireless” is considered an alternate to “wired”, then it must be strongly emphasised that the full potential (in terms of speed and cost) of wired broadband has not been fully exploited in Singapore. The download speed of 512 Kbps from our ADSL modems does not even qualify as being broadband in some countries! Take Hong Kong (see Pacific Supernet) for instance, only speeds in excess of 1,500 Kbps is considered “broadband”. In Japan (see [bbpromo.yahoo.co.jp](http://bbpromo.yahoo.co.jp)), speeds up to 8,000 Kbps have been advertised and at US\$28 per month!

The point I am making is that the viability of wireless broadband deployment should be evaluated in the light of a scenario where wired broadband functions at 10 times the current speeds and at say one-third the current prices.

### ***Summary***

In summary, if the goal is to enable more innovative broadband value-added services to businesses and consumers, then the path of least regret is to first fully exploit our excellent existing wired infrastructure before embarking on the wireless route.

Thank you for giving me this opportunity to express my views/comments and I wish IDA well in its initiatives.

Yours faithfully  
**SURGO SYSTEMS (SINGAPORE) PTE LTD**

Richard Fam  
Chief Executive Officer