

## ATUG FOCUS 22/04/09

This week's ATUG Focus is on APECTEL 39 held in Singapore last week. The topics of interest to ATUG were Broadband, International Mobile Roaming, Submarine Cable Protection and Industry Developments.

Verizon observed in the Industry Roundtable organized by INTUG on SME adoption of infocomms technologies that: "Countries that experience the greatest productivity and economic gains from ICT are those that successfully and deeply integrate it within the daily activities of diverse segments of society." In the end it's not the network, it's what you use it for.

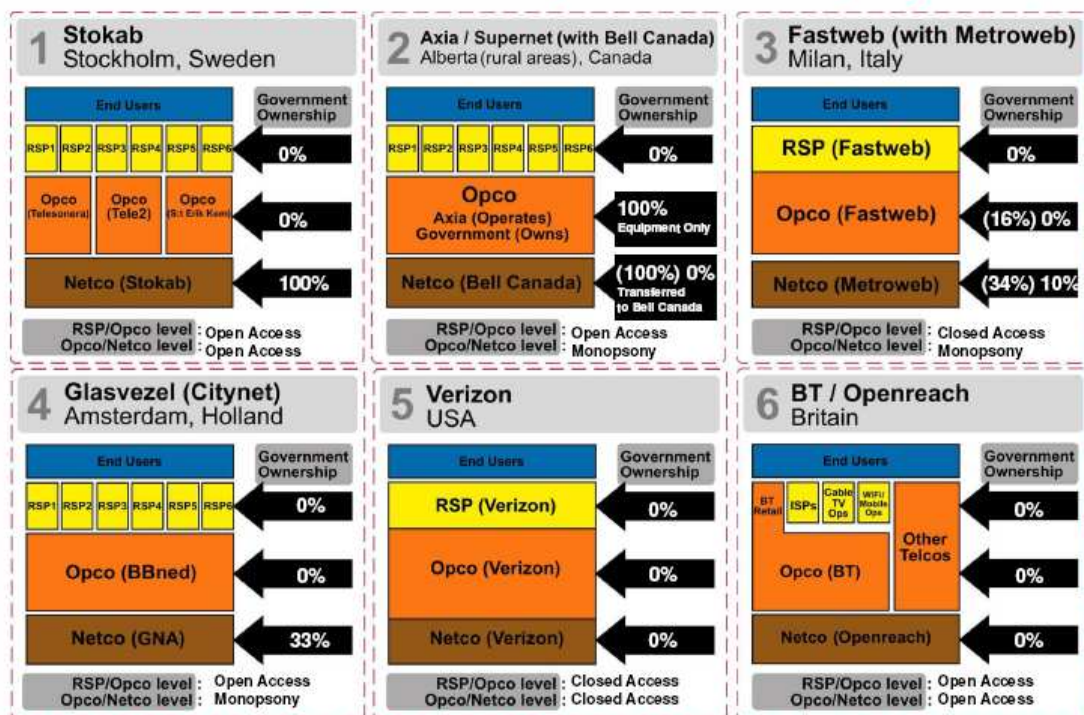
### Singapore

Singapore as the host country for this meeting outlined their objectives and plans for Next Generation Infrastructure. To compete in the global Knowledge Based Economy, broadband is a critical enabler. As a source of competitive advantage, broadband is an infrastructure and not a luxury. Singapore has continually invested in infrastructure to prevent economic growth from being constrained by infrastructure bottlenecks.

The plan is for 95% coverage by 2012 and Universal Service by 2013 with NetCo wholesale prices of \$15 per month for residential services and \$50 per month for business grade services (100Mbps symmetric - 1 Gbps symmetric).

### Other economies

## Government Ownership in FTTH Deployments



Peer to peer traffic (communications!!) is now driving bandwidth demand in Singapore, 50-65% of downstream traffic and 75-90% upstream. The average P2P file size is growing constantly, dominated by video traffic. File sizes in Asia are materially bigger on average than the rest of the world. The demand for upstream capacity especially has proved a huge challenge for DSL.




A major objective for Singapore's new network is to engage SMEs in adopting ICT. There's a world wide disparity between big corporations and SMEs in uptake. The coming of age of Software as a Service is one incentive for smaller businesses to become ICT users, so the development of the new network is most timely.

In parallel to the network development, Singapore has embarked on a program to stimulate SME uptake inspired by the vision "Singapore – An Intelligent Nation, a Global City, Powered by Infocomm". The program involves workshops, hands on training and trials at a nominal fee and subsidies for up to 70% of the cost of SMEs' ICT innovations including manpower, professional fees, equipment and software. And by clustering companies in groups of like commercial interests, it applies peer pressure to slow adopters.

Add to all that, 7500 Wi Fi hot spots with free connectivity in most CBDs, shopping centres, and food and beverage outlets, and Singapore is a very switched on InfoCity

The regulatory approach in Singapore stresses competitive open access arrangements:

## Characteristics of Each Layer & Need for Separation to Achieve Open Access

<p><b>Retail Service Providers (RSPs)</b></p>  <p><b>Broadband Services</b> Internet access, IPTV, Video Conferencing, Surveillance etc)</p>	<p><b>Competitive Market (&gt; 50 providers)</b></p> <ul style="list-style-type: none"> <li>•Low capital investment (~\$50-100 Million), Economic lifespan of 5 - 7 years</li> <li>•Service provider business with expected returns of equity of &gt; 20%</li> <li>•Main business to provide broadband services to end consumers</li> </ul>
<b>Separation to Ensure Open Access &amp; Minimise Discriminatory Conduct</b>	
<p><b>Operating Companies (OpCos)</b></p>  <p><b>Active Equipment</b> (switches, routers, access equipment etc)</p>	<p><b>Limited Competition (~2-4 large providers)</b></p> <ul style="list-style-type: none"> <li>•Medium level of capital investment (~\$400M - \$700 Million), Economic lifespan of 5 - 7 years</li> <li>•Traditional Telco-like business with expected return of equity of 16% – 19%</li> <li>•Main business to provide broadband access to RSPs</li> </ul>
<b>Separation to Ensure Open Access &amp; Minimise Discriminatory Conduct</b>	
<p><b>Network Company (NetCo)</b></p>  <p><b>Passive Infrastructure</b> (ducts, dark fibre etc)</p>	<p><b>Natural Monopoly (~1 national provider)</b></p> <ul style="list-style-type: none"> <li>•Capital intensive (~\$2 Billion), Economic lifespan of 25-30 years for fibre and 40-50 years for ducts</li> <li>•Utility-like business with expected return of equity of 9% - 11%</li> <li>•Main business is to deploy and provide dark fibre connection to OpCos</li> </ul>

### South Korea

South Korea has 12% of homes now signed up as FTTH subscribers, and broadband passing 100% of rural homes. Take-up is at 31.2%. Since 2006, Korea's policy emphasis has been on completing a BcN or Broadband Convergence Network with speeds of 50-100M per household in rural Korea. The plan now moving forward is to a UBcN or Ultra Broadband convergence Network with 1G speeds on fixed lines or 10M on wireless. This is expected to be complete by 2012/13.

### Chinese Taipei

Broadband communication is now increasingly seen as a right. A "broadband in villages" project was completed a year ahead of schedule with speeds of 2Gbps, leading Chinese Taipei to claim the status of one of the world-leading broadband economies. This proliferation in rural areas is enabling ecological tourism, agricultural development, and employment. It is encouraging young people to return to their home towns, promoting culture and handcrafts, and developing tribal economies.

### Mobile

A great deal of attention was focused on mobile issues. More work is planned on international roaming charges with Singapore suggesting the time has come for government action to reduce these to fair prices for businesses and consumers. A number of other economies were interested and a further workshop has been planned for TEL 40 in September. By this time work underway at the OECD and ITU may have progressed.

It is clear from APEC economies that wireless broadband and mobile broadband have an important role to play in achieving universal access to broadband. Topics for discussion include spectrum availability, infrastructure sharing, coverage obligations, industry structure (eg Vodafone/3 proposed merger) and spectrum/licence fees.

#### Australia's NBN

In Australia the Government has determined to build the National Broadband Network and to create a competitive market structure for communications. From ATUG's perspective, time is now of the essence as we see developments in our Asia Pacific region. Much thinking has already been done as part of the NBN RFP process and that work should be carried forward quickly to allow the National Broadband Build to begin.

ATUG is working on our submission to the Discussion Paper - National Broadband Network: Regulatory Reform for 21st Century Broadband. The major issues are:

#### Regulatory environment for the National Broadband Network and the roll-out of fibre

- National Broadband Network governance, ownership and operations
- National Broadband Network access regime
- Facilitation of fibre roll-out
- Consultation process

#### Telecommunications competition framework

- Part XIC access arrangements
- Anti-competitive conduct provisions
- Separation arrangements for Telstra
- Facilities access regime
- Spectrum allocation

#### Telecommunications consumer safeguard framework

- Universal access
- Connections and fault repair
- Retail price controls
- Community safeguards
- Opportunities for red tape removal
- Enforcement

ATUG is interested in member views as part of our submission on behalf of business users of communications services, email [rosemary.sinclair@atug.org.au](mailto:rosemary.sinclair@atug.org.au)