

ATUG Focus – Broadband developments

ATUG 2009 will see lively discussion on broadband in Australia – just ahead of the NBN decision! ATUG has welcomed the Government's continued focus on ensuring competition and benefits for end users from its \$4.7 billion support for NBN, Australian style.

[ATUG 2009 Broadband Awards and Excellence Awards](#) reflect the uptake by all sectors of broadband services. The next generation services made possible by the NBN in coming years will be game-changing for every aspect of business, community and social networking. The Awards presentation will be in 12th March.

[ATUG 2009 Update Conference](#) will also focus on broadband NBN style – for consumers, for competition, for investors. The conference will look at developments overseas, technology trends and policy directions – all on 13th March.

Two reports caught ATUG's focus this week:

- ACMA on household use of voice communications – the flights from fixed
- ITIF on US Next Generation Networks – the need for speed

The Flight from Fixed – Australian style

http://www.acma.gov.au/WEB/STANDARD/pc=PC_311644

A new Australian Communications and Media Authority report, *Australian household consumers' take-up and use of voice communication services*, has confirmed that young Australians are increasingly choosing **not** to connect a fixed line phone when moving out of their parental home, relying instead on mobile technology.

The study presents research findings into the attitudes and behaviours of household consumers concerning their voice communications.

It indicates that while 90 per cent of consumers use both mobile and fixed line phones to stay in touch, **many Australians aged 18 to 24 are abandoning the traditional phone in favour of more flexible technology.**

Younger adults are leading Australia's shift away from fixed-line communications, with many choosing not to connect a fixed-line phone in their new residence when they move out of the parental home. The level of mobile service take-up in this demographic is among the highest in the country, at 95 per cent of 25- to 35-year-olds.

The report shows a strong relationship between age and consumer attitudes to communication technology and, in particular, reluctance by Australians over 50 to relinquish their fixed line phone.

Key findings of the Australian household consumers' take-up and use of voice communication services report:

- Younger consumers show a clear preference for mobile communications, with 79 per cent of 18- to 24-year-olds using their mobiles more often than a fixed-line service. Among older Australians, a strong preference for fixed-line phone calls is seen, with those aged over 70 years most often using their fixed-line phones to make voice calls.
- When asked why they did not use a mobile phone, the most frequent response from older Australians was that they did not see the need (44 per cent). This underscores the disinclination by this section of the community to change long-established communication habits, or to adopt new technology without compelling cause.
- Emerging technologies such as VoIP are yet to be adopted by Australians at mainstream levels. However, with over three-quarters of Australian households connected to the internet and a growing awareness of how VoIP services are accessed, the take-up of broadband telephony is likely to grow. The potential of the VoIP market has been recognised by industry, with 47 per cent of internet service providers offering VoIP services as part of a bundled broadband package.

The Need for Speed – US style!

<http://www.itif.org/files/2009-needforspeed.pdf>

The speed.....

This report from the Information Technology and Innovation Foundation lays out a vision of what the Internet could look like with the ubiquitous deployment of next-generation broadband service.

Ubiquitous next-generation broadband access is defined as available to, but not necessarily adopted by, at least 90 percent of the population. The report does not define ubiquitous broadband as 100 percent coverage because, at least for the foreseeable future, the cost of connecting the most remote homes to next-generation networks would be prohibitively high.

In this report, fiber to the home (FTTH), fiber to the node (FTTN),³ and DOCSIS 3.0 cable technology are considered next-generation **fixed-line broadband deployments**.

With regard to **next-generation wireless broadband**, so-called 4G, or “fourth generation,” wireless technologies, particularly WiMax and LTE (or “Long-Term Evolution”), are emerging, bringing very fast mobile Internet services.

The leading edge of 4G rollouts has begun with WiMax deployments and will accelerate with Verizon LTE deployments in 2010, with mainstream technology rollouts and market adoption picking-up in 2011 and 2012. Next generation wireless technology such as LTE can under ideal conditions have the same capability as next-generation wired broadband technologies. In particular, 4G wireless can be a good alternative to fixed wireline in rural areas where subscriber density is low and fixed outdoor antennas are used to maximize radio signals.

Just as with speed, mobility—the ability to access Web-based resources at high-speeds from cell phones, PDAs, laptop computers, or other devices—will be vitally important in envisioning the future of the Internet.

The Need.....

... a paradigm shift occurred during the beginning to middle of this decade, as users increasingly adopted broadband at speeds of up to 1.5 Mbps. Critically, this paradigm shift resulted not merely from moving to an “always-on” environment, rather it arose because broadband enabled a wealth of services and applications that simply were not practical at the lower speeds, such as blogging, e-commerce, social networking, discovering health information, podcasting, distance education, voice over Internet Protocol (VoIP), and many others. Thus, the jump to broadband speeds represented an inflection point making possible a myriad of services that were previously impractical.

Next-generation broadband enables several transformative functionalities that support the development of more compelling, powerful, and useful Web-based applications capable of delivering substantial benefits to consumers, society, academic institutions, businesses, and the economy. The four main functionalities are:

- 1) dramatically faster file transfer speeds for both uploads and downloads;
- 2) the ability to transmit streaming video, transforming the Internet into a far more visual medium;
- 3) the means to engage in true real-time collaboration; and
- 4) the ability to use many applications simultaneously.

The Role for Government.....

.....policy is justified to address the “chicken-or-egg” conundrum which slows deployment of next-generation broadband: consumers may be reticent to buy next-generation broadband service because there are not enough compelling applications that leverage high-speed networks; at the same time, would-be developers of those applications are hesitant to develop them if they fear an insufficient market exists. By aggressively supporting the deployment of next-generation broadband networks, the governments of Japan, South Korea, Sweden, and others have short-circuited this paradox, and caused the future to arrive faster by fostering an environment where the development of next-

generation Web applications could occur without concerns that customers would lack the requisite infrastructure to take advantage of them.

Supporting investment.....by suppliers and buyers

Many nations, including Japan, South Korea, and Sweden, have spurred the deployment of faster networks through direct subsidies, including grants, low-interest loans, and accelerated depreciation on network investments. For example, the Japanese government allowed incumbent provider NTT to rapidly write off the cost of its new fiber broadband networks. The South Korean government did the same for fiber investments in South Korea. Austria and Sweden allowed individual consumers to deduct broadband expenses from their taxes. Canada recently increased by fifty percent its tax incentives for investments in broadband, Internet, and other data network infrastructure equipment.