

**CONNECTING AUSTRALIA!
WIRELESS BROADBAND
MONDAY, 11 NOVEMBER 2002**

**MR CHRISTOPHER PYNE MP
CHAIR, HOUSE OF REPRESENTATIVES STANDING
COMMITTEE ON COMMUNICATIONS, INFORMATION
TECHNOLOGY AND THE ARTS**

I am delighted to bring down this report.

It is a unanimous report and reflects seven months of intense work involving eight public hearings at major Australian cities, several private briefings by officers of government agencies, and the consideration of 60 submissions from the public.

These submissions covered a broad range of views. They included industry participants such as Telstra, Optus, Vodafone, Alcatel, ArrayComm Incorporated, Motorola, Cisco Systems, Nortel, Integrity Data Systems, SR Telecom, m.Net Corporation, Ericsson Australia, AirNet, and Soul Pattinson Telecommunications. They also included community radio groups like Melbourne Wireless.

We heard also from educational bodies like the West Australian Department of Education and the Australian Information and Communications Technology in Education Committee. In addition, we took into account submissions from state, territory and local governments, as well as university researchers.

We heard from organisations representing the hearing-impaired including the Australian Association of the Deaf and Australian Communication Exchange. We also heard from industry commentators and, of course, the ACA.

To all of our submitters, we say thank you.

We also thank the many people who addressed us at the public hearings.

Mr Speaker, our report addresses each of the terms of reference that were set by the Minister for Communications, Information Technology & the Arts when he first suggested the committee initiate an inquiry into wireless broadband technologies.

That was in April this year. So, in tabling today, members will appreciate that the committee has moved speedily to bring down this report.

I want to thank members for their cooperation in this regard.

Mr Speaker, the committee's 14 recommendations are aimed at improving the takeup of wireless broadband in Australia, especially in regional areas and for the hearing-impaired.

The conclusion reached by the committee is that the solution to the 'last mile' service involves a mix of technologies, both wire-line and wireless.

Clearly, however, for regional and remote Australia where wire-line solutions are not economically viable in the short to medium term, the last mile problem could be addressed by a variety of **wireless** techniques.

Two possibilities are Nortel's CDMA2000 and Lucent's 450 MHz CDMA. The committee appreciates that spectrum availability for 400-500 MHz is a problem and so we recommend that the ACA consider allocating spectrum in this range for CDMA-450 on an experimental basis.

Further, a possible way of bringing broadband services to remote areas involves the use of analogue TV bands which will not be employed in the future for digital TV services in Australia.

These TV bands are able to provide long distance services without the need for expensive infrastructure.

They are to be abandoned at the completion of the analogue-digital simulcasts, which will occur in 2008 in urban Australia and somewhat later in regional Australia.

Several groups are working on developing technologies for these low frequency bands including the ANU BushLAN group, Baltech Pty Ltd and ntl (with its Bushnet proposal).

The committee recommends that the ACA and the ABA develop a scheme to allow the trial use of unallocated TV channels for rural wireless broadband links with a view to such spectrum being made available if the trials are successful. This has the

potential to provide a uniquely Australian solution to the worldwide problem of long distance last mile Internet provision.

Mr Speaker, inexpensive wireless technologies such as these longer wavelength technologies and 802.11 (WiFi) could be used to “pull” broadband 3G wireless and wire-line infrastructure to customers by creating the business case for broadband. In this way, a cheap wireless rollout could later be followed by a wire-line rollout providing additional or better services.

For both urban and regional Australia, the most exciting technology for wireless broadband is 802.11. The elimination of a carrier licence on the ISM bands for both commercial and non-commercial operation would be a simple regulatory change which would unleash its potential, and we recommend that this be done.

For those areas of Australia where DSL or other broadband wire-line connections are not yet in place, the committee recommends that the ACA should consider raising the power limits on the ISM bands to the equipment’s rated values. This should encourage the wider availability of broadband services.

In view of the interest that these changes may evoke in the community, the Committee recommends that the ACA provide educational services to interested parties (whether they be carriers or non-carriers).

We also recommend that training programs be developed for prospective wireless operators in relation to the wireless market and to customer requirements.

In the event that these measures lead to much greater use of 802.11 equipment, they may result in co-channel interference and hence the need for a conflict resolution service of some kind to be offered by the ACA. So that is another recommendation by the committee.

Should an organisation using 802.11 establish a business case in a certain area, then a profitable company operating on the ISM band could be given the opportunity to move to licensed spectrum. This may, for example, be a mechanism to prove a 3G-business model. We recommend that the ACA and the ABA develop procedures to

facilitate the migration of wireless activities from ISM bands to adjacent licensed spectrum by streamlining equipment qualification procedures.

Mr Speaker, greater use of the ISM bands increases the possibility that someone might attempt to use them for illegal activities. The Committee considers that the ISM bands should be treated in the same manner as all other telecommunications with respect to the capability for police interception. Therefore we recommend that a standing bureau (or working party) be established to maintain a watching brief on the potential for WiFi and other ISM networks to be used for illegal activities.

In order to facilitate the provision of Internet services by small wireless service providers, the Committee recommends that the ACA and ACCC develop a mechanism to enable such providers to negotiate wholesale prices for Internet backbone connections.

This is particularly important for the delivery of broadband services in areas where DSL/wire-line broadband connections do not yet exist. The committee considers that impediments to the interoperation of wireless ISPs and their access to the Internet backbone should be removed.

The Committee noted concern about the nature of spectrum licensing procedures. Some witnesses were worried that the cost of spectrum licences is excluding small players, and that services are not being provided to non-profitable regions that are under a spectrum licence covering a more profitable urbanised area. Some spectrum allocations have not been utilised owing to the fact that the profitability of the business operation on that spectrum does not justify the price of the spectrum licence in the first place. We call on the ACA and the ABA to establish a spectrum bureau to examine these issues, including considering regionally adjusted spectrum auction reserve prices and financing terms.

Some submitters expressed serious concern about the tenure of spectrum licences. The Committee recommends that the ACA consider improving the system of licence renewal.

Given the trend toward closer convergence of broadcasting, telecommunications and information technology issues, the committee calls upon the government to consider replacing the existing regulatory bodies by just one central regulator.

The committee strongly believes that the benefits of new wireless broadband technology should flow to everyone in the Australian community. In order that the hearing-impaired are not excluded, the government may need to provide some specific encouragement to the industry to take their needs into account—and we recommend accordingly.

To conclude, Mr Speaker.

Wireless broadband has an important role to play in extending the reach of broadband services within Australia. But there is no one particular technology that can solve all of our telecommunication problems. A mix of technologies will be required.

The market should be permitted to determine, over time, which ones best suit particular applications. The government should maintain a general regulatory policy of 'technology-neutrality' (not favouring any particular technology, whether it be wireless or wire-line).

Within this overall setting, it is desirable for specific measures to be implemented to improve the understanding and takeup of wireless broadband. I believe the committee's recommendations, if adopted by the government, will go a long way toward achieving this desirable end.