

## **RESPONSE ON BEHALF OF THE NSW GOVERNMENT**

INQUIRY INTO THE UPTAKE OF DIGITAL TELEVISION IN AUSTRALIA  
House of Representatives Standing Committee on Communications, Information  
Technology and the Arts

Prepared by

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## Executive Summary

Below is a summary of New South Wales Government's recommendations and responses to the House of Representatives Inquiry into Digital Television uptake.

### Rollout process for Digital Television in Australia

- While initial consumer acceptance for free-to-air Digital TV has been slower than in some international markets such as the UK, Australia still leads many markets such as the US in rollout of Digital TV services and their acceptance and take-up.
- Consumer acceptance and take up of Digital TV will ultimately depend upon the price and ease of use of receivers, the creation of new content and channels, and greater consumer awareness.

### Options for further encouraging consumer interest in uptake of DTV

- More consumer awareness and understanding about the benefits of free-to-air Digital TV is needed for uptake to accelerate and smooth the transition.
- Regulatory certainty regarding digital broadcast spectrum will promote new investment by broadcasters and datacasting in infrastructure and programming.
- Datacasting licences including spectrum allocation be provided to State and Territory Governments at nominal cost for the operation of Government and public information services.

### Technological issues relevant to the uptake of digital television

- New video compression technologies present opportunities for greater bandwidth efficiency and better quality services but also present standards transition issues that need to be managed.
- Interactive television technologies offer Australian viewers significant opportunities for new services including:
  - Personalised television services (such as transport information based on your journey) via the now agreed standard for Australian free-to-air enhanced television - Multimedia Home Platform (MHP).
  - 'Hybrid' interactive TV where DTV is integrated other channels, such as SMS voting, is already in widespread use by Commercial broadcasters

### Future options

- Digital Television in Australia has significant potential as a platform for delivery of public and government information and services especially in the areas of health, education and open government.

## **Introduction**

The NSW Government Chief Information Office, Department of Commerce is responding to the House of Representatives inquiry on Digital Television uptake on behalf of the New South Wales Government.

The response draws from the New South Wales Government's:

- Ongoing interest in and support for the rollout of Digital Television in Australia;
- Current role as producer of Channel NSW the Sydney-based pilot in using Digital TV to deliver public and government information, and the;
- Current policy position, which is consistent with that expressed in previous submissions on datacasting and digital television.

## **Growing Australia's Digital TV industry**

The broadcasting industry is one of Australia's largest and most strategic service industries. Australia is home to seven home-grown billion dollar broadcasting related enterprises: News Corporation, PBL, Seven, Sky TV, Ten, Foxtel and Austar. Media more generally is an area of relative Australian comparative advantage as witnessed by a recent comprehensive UK study, where Sydney emerged as "the clearly dominating world media city in Asia Pacific"<sup>1</sup>.

Australia's international track record in innovative and creative screen production is well known. From award winning films such as Moulin Rouge to the children's television phenomena, Bananas in Pyjamas, to the successful global syndication of the format rights to The Block.

Australia also has a growing track record in award-winning media technology, research and innovation. Australia has enormous future export potential in both screen content production and technology smarts.

In the last five years, Sydneysiders have been awarded three Academy Awards for Technical and Scientific Innovation. Proximity, a start-up technology company in Sydney suburb of Balmain also collected last year's Emmy Award Technical Innovation in television.

Innovation begets innovation.

Technology and screened entertainment are long-time bedfellows. In 1939, the microelectronics industry sprang from the US garage of Bill Hewlett and Dave Packard, founders of HP, to serve the needs of another innovator, Walt Disney, who was at the time producing the world's first animated feature films. Together, these two companies helped provide the foundations for what are now two of the United States' largest export earning industries. On the global stage, these information and communication technology and media industries are now among the world's largest - each with annual expenditure of over a trillion dollars per annum.

Digital television is at the intersection of creative, technology and business enterprise in a domain where Australia already has significant competitive advantage. It is a natural and important area of our future economic and cultural growth.

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<sup>1</sup> [http://www.bauhaus-dessau.de/kolleg/servecity/pdf/studies/Syd\\_sum.PDF](http://www.bauhaus-dessau.de/kolleg/servecity/pdf/studies/Syd_sum.PDF)

## Diversity central to the strength of Australia's broadcast industry

- The quality, strength and diversity of Australia's broadcasting industry is renowned and internationally recognised. Its strength stems in part from distinct sectors that act to complement each other:
  1. commercial;
  2. national;
  3. community;
  4. subscription; and
  5. **public information** (datacasting).
  
- Australia has greatly benefited from innovation and diversity in the broadcasting industry. Each sector complements each other and provides specific contributions to programming and services offered. It is a balance of competitive tensions both within and between these sectors that drives innovation in the industry as a whole. These innovations relate to programming content as well as to management and technology.
  
- There is clear evidence of healthy competition and innovation by these different sectors of the broadcast industry. Foxtel has launched its digitisation program which involves significant investment in new technology and enhanced services.
  
- The free-to-air broadcasters have also initiated a number of new digital television services and enhanced programming to retain their existing audiences.
  
- For example, community television provided an early career stepping stone for artists such as Rove McManus. Our national broadcasters have long been pioneers in the development of talent and program formats later picked up by the commercial industry.
  
- Our National broadcasters, the ABC and SBS are part of Australia's national cultural fabric and celebrated internationally. Commercial broadcasters are robust and dynamic and form a substantial part of our media and entertainment economy. Emergent community broadcasters fulfil another important role providing an access and a voice for communities.
  
- Datacasting represents another important next step in innovation for the broadcasting sector. It opens a new stream of content and services for the public.
  
- New South Wales Government believes the Australian broadcasting industry would be strengthened as a whole by further validation and growth of this fifth category of broadcasters — Government and public information services.

## **Consumer Acceptance of DTV in Australia**

### **Australia's DTV take-up rate**

- As noted in the Inquiry's Background Discussion Paper, initial consumer uptake of Digital Television has been slower than in some overseas markets such as the United Kingdom. It should be noted however, that Australia still leads many markets such as the United States in the take-up of digital television.

The often cited success of digital television in the UK with a penetration of around 60% of homes comprises a range of platforms, including satellite and cable pay-tv services, only one of which, is free-to-air digital television. Free-to-view Digital Terrestrial TV (DTT) in the UK is growing rapidly and but accounts for only around 18% of homes (UK Digital TV Update, March 2005). In Finland, the situation is reversed where the majority of Digital Television uptake is from Digital Terrestrial TV.

At Channel NSW, projections for the take-up of Free-to-air Digital Television in Sydney are slightly more optimistic than those quoted in the discussion paper. Channel NSW research, based upon trend projections year-to-date historical digital set-top-box sales (DBA figures) suggests as many as 70% of Sydney homes could have free-to-view Digital TV by 2008 (Channel NSW DTV Uptake Projections, Sydney Market, April 2005) .

- Ultimately however, the consumer interest in free-to-air Digital TV in Australia and its acceptance and take-up will depend on a number of factors including:
  1. Greater consumer awareness and understanding of free-to-air digital television
  2. The price, availability and ease-of-use of digital television receivers
  3. Providing viewers with access to new content and channels that complement the existing analogue free-to-air offerings.

### **Regulatory certainty as catalyst for further investment**

- Once the Commonwealth provides greater certainty regarding free-to-air Digital Television licenses and spectrum allocation, this will enable broadcasters and datacasters alike to invest over a longer horizon in content and technology platforms. Note in the subscription sector, certainty enabled an investment estimated at over \$500 million to upgrade analog cable to digital.
- New South Wales recommends datacasting licences including spectrum allocation be provided to State and/or Territory Governments at nominal cost for the operation of Government and public information services.

## Consumer awareness and simplicity

- More consumer awareness and understanding about free-to-air Digital TV is needed for uptake to accelerate and to smooth the transition to digital.
  - Despite being on-air for over four years now, many Australians associate digital television with solely subscription television in Australia and are unaware of free-to-air digital services or have yet to see its benefit.
- While there are now a wide range of set-top-boxes on the market (over 50 models) from numerous vendors, many are more complicated to install and operate than a DVD player or VCR.
  - Simple options for consumers to convert to digital television are needed including a wider range of Television sets with integrated digital receivers.
  - More information and simple consumer how-to information would assist in Australian Digital TV diffusion.

## Technology Issues

- New digital video compression technologies
  - While digital television is currently based around MPEG 2, newer generation compression technologies and standards such as MPEG4 will mean more efficient use of bandwidth and more channels within a given spectrum or better quality services within the same spectrum.
  - Consideration of the benefits and opportunities for phased introduction of MPEG4 with legacy support for viewers with MPEG2 set-top-boxes should be reviewed. Some software based digital television receivers may enable smoother future upgrades and technology transitions.
- Enhanced TV services
  - Enhanced TV services offer viewers the ability to access real-time information-based internet-like services via television such as flight arrival times, localised current weather and traffic updates.
  - Now there is industry wide agreement in Australia on a standard known as Multimedia Home Platform (MHP) as the free-to-air standard for interactive enhanced TV services, progress can be made on a unified front.
  - To promote use of these interactive services and DTV in general, there is:
    - A need for a range of compelling and useful MHP applications and services to stimulate consumer demand
    - A need for MHP capable set-top-boxes, which are yet to appear in Australian retail stores.
  - To resolve the 'Chicken and egg' situation, supply-led approach is needed — services need to be developed to promote consumer uptake.

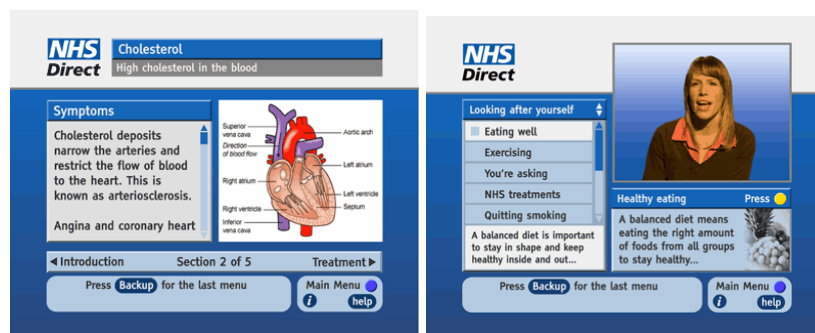


## Future options

- Growth of DTV interactive services
  - Personalised television services such as local weather, route-specific transport and traffic information using MHP
  - Transaction services such as paying for your car registration through hybrid technology backchannels such as a mobile phone
- Growth of Health, Education, Open Government DTV channels

There is significant opportunity to develop channels based around the delivery of public information particularly in the areas of:

- Public health information and services, similar to as the UK Government's NHS Direct Interactive TV service (examples below);



- Curriculum education services as well as professional teacher development, such as UK Government's [Teachers TV](#) service and
  - Expansion of the existing audio coverage of Federal Parliament on Digital TV to include video coverage as well as coverage of State Parliament (Noting the success of US Parliamentary TV service C-SPAN which is in 85 million homes and watched by 28 million people each week — nearly twice the viewers of the popular drama *West Wing*)
- Digital Television's integration with other information and service channels and media such as the web and wireless data and voice services either directly through new digital television standards designed to work with mobile phones (such as DVB-H) or indirectly through hybrid-media applications (such as using your current mobile phone to interact with government while watching Digital TV).

## **Digital TV as a channel for Government and public information**

The NSW Government has previously expressed a strong interest in using datacasting as a means of delivering government information and services. The NSW Government submission to the 2002 Federal Government review of datacasting identified that the transmission of government electronic services using digital television will be a major method of reaching the wider public and improving service delivery.

“The NSW Government has a strong commitment to provide communities throughout NSW access to a wide range of information services, through a variety of access platforms. Datacasting using the digital television broadcasting medium has always been seen as an appropriate mechanism to provide a substantial number of Government’s constituents, particularly those located in rural and regional NSW with cost effective access to Government information and services.”<sup>2</sup>

The types of government services that can be datacast include:

1. Bus, ferry and train timetables, special event transport arrangements, park and ride services.
2. Roads and traffic conditions in regions and areas, traffic tips, alternative routes, safe driving practices.
3. Details of health services, timetables for specialist visits in regional areas, poisons information, medical alerts
4. Information on emergency services information such as bushfire alerts and updates, road closures
5. Tourist information, up and coming events, points of interest, accommodation, restaurants, bookings etc.
6. Information on Government jobs, tenders and contracts
7. Government and public announcements on current water restrictions
8. Coverage of government proceedings, parliament and committee hearings
9. Interactive payment of traffic infringements, service purchases.

These applications have the potential to provide government with new approaches to the delivery of information and services. For example in the health area, applications such as interactive remote diagnostics, where citizens are provided with a simple trusted source of health information matching symptoms to possible causes. And in the education arena, information such as remote interactive learning applications, on line access to the TAFE handbooks and on line enrolment for courses could be provided by datacasting.

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<sup>2</sup> From NSW Government response to Review of the Operation of Schedule 6 of the Broadcasting Services Act 1992 (Datacasting Services), 2002.

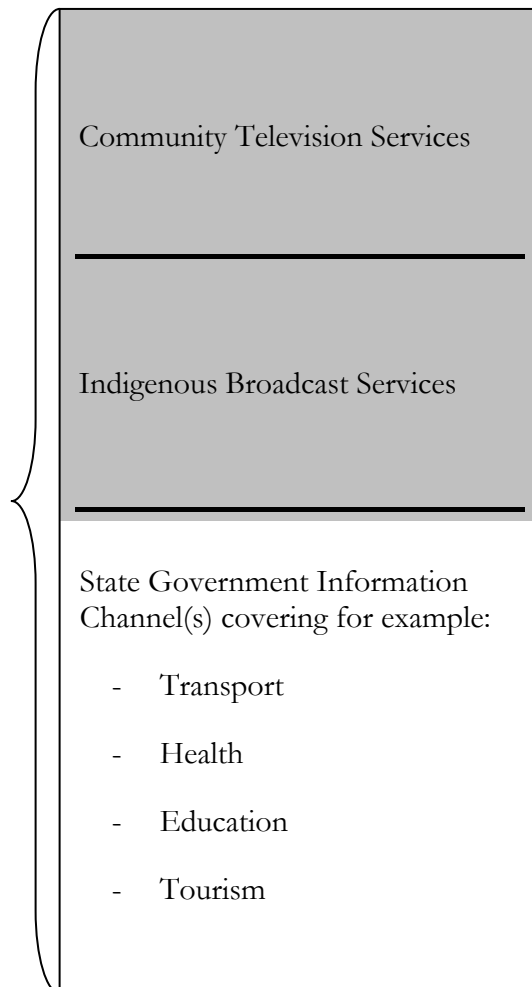
Local governments could use datacasting to advise and inform the community about upcoming developments, community services, community and cultural programs and other matters having a direct bearing on their areas of responsibility. Local government could also use the interactive features of datacasting coupled with a back channel (possibly the telephone) to engage the community in meaningful debates and gauge community responses to issues.

Given the limited amount of spectrum, competition purely on price is not considered appropriate, as it will limit potential providers to those that can afford the purchase price. Further, the NSW position is that the Commonwealth must ensure that decisions about spectrum allocation and use include conditions to guarantee that Commonwealth and State Governments can use datacasting to deliver online services without additional cost to government.

NSW Government recommends the Commonwealth permanently allocate some of the non-simulcast digital spectrum in metropolitan and regional Australia for Government and public information services, community television services, indigenous television services and new commercial datacasting services. Datacasting licences should also be provided to State Governments at nominal cost for the operation of Government and public information services. See below for the potential spectrum allocation proposed in NSW Government Submission to Commonwealth review of datacasting spectrum, August 2004.

### Potential spectrum allocation scenario

New South Wales Government recommends at least one permanent datacasting licence be issued in at least one of the planned 7MHz spectrum allocations in each metropolitan and regional area for use by Government, community and indigenous groups.



## NSW Government experience in DTV

The strong interest and positive feedback from over twenty-nine NSW government agencies participating in the trial and direct from comments over one hundred viewers, suggest it holds great promise as a channel for delivery of public information and services.



*ChannelNSW Traffic TV: RTA is providing up-to-the-minute visuals as part of the trial from traffic hotspots around Sydney.*

The first few months of the Channel NSW datacasting trial has demonstrated digital spectrum is:

- An innovative and flexible way to provide public and government information harvested from a range of sources including the web;
- A timely way to provide a growing audience of DTV viewers with up-to-the minute public information and data;
- An additional cost-effective government communications platform.

More is planned for the two remaining years of the Channel NSW pilot including: coverage of major public forums, such as the Sydney Futures Planning summit; Cultural events such as The Sydney Writers Festival, ArtExpress, Sculpture by the Sea and expanded secondary education material such a school student news and current affairs program, and Teachers TV — programs for professional development.

Conversion of the current trial licence to a permanent licence would encourage further expansion of the Channel NSW service and investment required to support:

- Expanded on-air material for schools, public health and emergency services
- Evaluation of a state-wide rollout of Channel NSW to regional NSW
- Introduction of interactive services such as personalised transport information

## International experience with Government TV services

The UK Government has already established a Government Information Channel (UK Online Interactive) using datacasting to reach digital television receivers. They state that datacasting "provides a new way of providing government services to a wide range of citizens – particularly those who up to now have been unable or reluctant to use services over the internet".

In December last year, the UK Government released a Digital Television policy framework which nominates **Digital Television as a primary service delivery channel** in their commitment to make all government services available electronically by 2005.

In the UK "by the end of 2003 more households are expected to have DTV than have internet access." The UK Government has committed to DTV becoming a means to provide all citizens with access to e-government services.

—UK Government, Office of the e-Envoy, December 2003

The UK Digital Television market has grown rapidly is a more mature than the market in Australia. In the UK, Digital TV is in 59.4% of all households, representing the total Digital TV uptake figure which includes cable, satellite or free-to-air services. ([source: Ofcom, Dec 2004](#))

The United States has a long tradition of Government television. Since assuming the office of Mayor of New York City, Michael Bloomberg has rejuvenated and relaunched the Government's television service NYC TV:

"...viewership is up 180% since we took over and there are about a million people who have seen the channels over the past year."

— Channel NSW in conversation Seth Unger, Creative Director NYC TV, June 2004

NYC TV is an analogue 24-hour civic television service viewable on cable television by 3.1 million New York citizens and watched by around 700,000 New Yorkers: Nielsen 2004.

While the City pays for the production and management of the material on the channel, the service is transmitted at no cost to the Government by the licensed cable television companies operating in New York City as part of their "must carry" public access legislation. NYC TV is produced by the New York Department of Information Technology & Telecommunications (DOITT).

<http://www.nyc.gov/html/nycmg/nyctv/html/home/home.shtml>

## Further information on Channel NSW

Over the course of the trial, GCIO will be continuing to test the technical and presentation quality of the digital television service. For further information about the Channel NSW trial visit the website at [www.nsw.gov.au/channelnsw](http://www.nsw.gov.au/channelnsw) or contact Paul McCarthy on (02) 9372 8286 or via email [paul.mccarthy@commerce.nsw.gov.au](mailto:paul.mccarthy@commerce.nsw.gov.au).