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17 April 2005

Submission on Introduction of Digital Radio Issues Paper – a consumer perspective

Dear Sir / Madam,

I am responding to the Introduction of Digital Radio Issues Paper issued by the Department in December 2004. I am not associated with any organisation in the radio industry, but am interested in the outcomes as a listener/consumer.

PART A: THRESHOLD ISSUES FOR DIGITAL RADIO

Digital radio platform

Comment is sought on the Study Group's conclusions that Eureka 147 would appear to be the appropriate platform for Australia to adopt for terrestrial digital radio services. Comment is also sought on whether a hybrid Eureka/DRM should be considered to address regional and remote coverage issues.

Having recently spent time travelling around Tasmania on holidays, plus being required to spend time in country Victoria for work, there are numerous occasions on the road where the only stations that can be heard are AM stations. For instance around Cradde Mountain, only 7BU and 7NT are able to be received. Consequently, a hybrid Eureka / DRM system would be the most appropriate for a country such as Australia with a low population density. Such an approach is also consistent with the Government's successful approach of adopting a dual system for mobile phones (ie GSM and CDMA). Given the existing congestion of radio frequencies, consideration should be given to investigating the opportunity for simultaneous analogue / digital DRM transmission on the same frequency.

Approaches to implementation

Comment is sought on the appropriate model for the introduction of terrestrial digital radio services in Australia. Comment is also sought on whether digital radio should be considered as a replacement technology for existing analog radio services and, if so, the likely timeframe within which replacement can be expected to take place (and factors that would be relevant to that timeframe).

Similar to digital free to air television, I would expect that ultimately that digital radio would replace analogue radio. However the conversion period would need to be extensive - say 24 years, based on twice the average age of vehicles on the road in Australia. This is because cars are important locations for listening to the radio. Obviously the acceptance rate for digital radio will need to be considered, and therefore periodic review should be undertaken, say every 10 years, to re-assess the time frame for discontinuing analogue broadcasting.

It would be expected that national, community and commercial broadcasters would all convert to digital with an increased number of channels per broadcaster so as to increase the level of diversity in broadcasting for listeners. Whilst there is an argument that digital radio provides an opportunity to introduce significantly more broadcasters, it is unclear as to whether this will increase the overall revenues of the radio industry and therefore is viable. This especially needs to be considered for regional and rural areas, where the experience with television market aggregation resulted in more choice at the cost of less local content.

In order to ensure the development of digital radio, existing broadcasters would need to be given a use it or lose it timeframe for commencing digital transmission. This could be supplemented by a small number of new operators in major markets, such as Melbourne and Sydney, where the commercial capacity to absorb new competitors may exist.

As the introduction of digital radio is expected to involve conversion of most current broadcasters, the current system of local licensing areas should continue. Because of the experience with television aggregation, no national licences should be offered.

Spectrum availability and performance

Submitters are invited to comment on, and provide any information in relation to, issues associated with the availability and performance of spectrum for terrestrial digital radio services.

The primary focus in selecting frequencies should involve adopting a frequency range that matches that already used in Europe. This is essential to keeping the cost of receivers down. The impact of inappropriate frequency selection has already been experienced in Australia where the FM band was initially allocated to television stations operating on channels 3 to 5A.

It is understood that the major bands used in digital radio in Europe are equivalent to television channels 11 and 12. To ensure consistency with this, the digital television frequency allocations may need to be reviewed and the analogue frequency of some stations transmitting on channel 10 adjusted slightly. This benefit of cheaper

receivers far outweighs the cost of these changes, especially given the current low penetration rates of digital television in Australia.

PART B – REGULATORY ISSUES

Multiplex Operation and Regulation

Bit rate allocation

Comment is sought on the issues associated with audio bit rates, audio quality, coding systems, and the numbers of services that may be made available in Australia. In providing responses, submitters are asked to also address the constraints on channel availability noted in the previous section.

To maximise the flexibility of digital radio, the following is proposed:

- each multiplex should be divided into 6 notional channels of 192kb
- licencees would be allocated a quantum of kb rather than a number of channels (although the quantum would be based on a number of notional channels)
- each channel must transmit with a minimum of 96kb
- licensees can re-allocate “surplus” kb between channels (including potentially establishing additional channels or using the capacity for datacasting)

By adopting an approach of licensing kb rather than channels, broadcasters would be provided the flexibility to take full advantage of the nature of digital radio. For instance, the operator of 2EC/Power FM could introduce an additional channel operating only in summer for Victorian tourists to the Merrimbula / Eden area.

Multiplex licensing and spectrum allocation

Comment is sought on the introduction of the multiplex operator into the radio value chain, and in particular the implications for Australia’s broadcasting market and regulatory frameworks. In particular, comment is sought on the appropriate arrangements for allocation of multiplex licences and associated spectrum.

Multiplex licensing

From a consumer perspective, it is unclear how the introduction of a multiplex operator adds any value to the broadcasting industry. As profit-making enterprises, the profits required by the multiplex operator will feed through to the costs of broadcasters resulting in more ads. As a listener, less ads are preferable.

In addition to the consumer aspect, there could be significant potential disputes between the operator and broadcasters, especially in regional and rural areas, because of uneven negotiating power and the long term relationship between the organisations. (In some ways, this is similar to airports increasing landing fees for airlines). As an alternative, the body corporate structure commonly used in apartment blocks could be adopted as the “owner” of the multiplex. This provides a mechanism to ensure that the operations of the multiplex are aligned to the needs of the licensed broadcasters. To an extent, this situation already exists with some FM broadcasters sharing transmission facilities in Melbourne through a joint-venture company.

In terms of the number of multiplexes, this would be expected to be tied to market size. One of the implications of digital radio, may be the definition of standard market sizes, rather than individual assessment as to the appropriate number of licences per area. This could be as follows:

Size	Multiplexes	Example
Rural (Solus)	1	Western Victoria
Regional	2	Albury
Small City	3	Adelaide
Large City	4	Melbourne

Spectrum allocation

By using a 192kb notional channel allocation, a standard multiplex would be expected to comprise six notional channels. It is proposed that this would be split threeways – 3 commercial (576kb), 2 national (384kb) and 1 community (192kb) channels. Applying this to the standard multiplex markets identified above, the number of notional channels would be:

Size	Multiplexes	Commercial	National	Community
Rural (Solus)	1	3	2	1
Regional	2	6	4	2
Small City	3	9	6	3
Large City	4	12	8	4

However, as discussed above it is proposed that broadcasters would be licensed for spectrum size rather than number of channels. The following are the proposed limits within a market:

- commercial – 576kb (based on three notional channels and continuing the concept of solus markets)
- national – 960kb (based on SBS/RPH having notional channels in cities)
- community – 192kb (based on each community broadcaster continuing to be licensed separately)

Consistent with the existing limit of the number of commercial licences that any broadcaster can hold, there should be a limit to the amount of licensed spectrum any one broadcaster can control throughout Australia - say 9,600kb (or 50 notional channels).

As noted previously, it is desirable that DRM be implemented, especially for regional and rural areas. It is therefore proposed that all existing AM licences (including the ABC) would simulcast between AM, DRM and Eureka. Commercial and national broadcasters would have flexibility to choose whether other channels would be simulcasted.

One major consideration with this approach is how to ensure equality in the conversion of existing analogue licences. For a rural (or solus) market, this is not expected to be an issue – as the full commercial spectrum would be allocated to the incumbent. For other markets, it will be necessary to establish a ratio of spectrum allocation to number of analogue licences.

Where a broadcaster holds two analogue licences it would automatically receive one digital licence for 576kb, whereas one analogue licence would equate to 288kb. To the extent that there is any residual commercial kb available, this would be auctioned under the current broadcasting auction system. New players who meet broadcasting standards would be permitted to bid.

Consistent with the basis that each AM licence will simulcast on AM, DRM and Eureka, the AM/DRM/Eureka simulcast licences would be allocated evenly between multiplexes. This may result in one broadcaster owning spectrum on two multiplexes. This would be expected to resolve itself through market forces.

In some regional markets, such as Geelong, the AM frequency has been vacated and therefore consideration should be given as to whether the market should either be classed as Rural or a new AM/DRM/Eureka licence issued. This is important to ensure that regional listeners covered by the relevant licence have a DRM service. It may be appropriate to take further submissions from commercial broadcasters in relation to this.

National and Community Broadcasters

Comment is sought on the role of the national broadcasters and the community broadcasting sector in the introduction of digital radio. In particular, comment is invited on the possible arrangements for the implementation of digital services by the non-commercial sector, including access to multiplex facilities and (in the case of the community broadcasters) licence allocation.

Comment is also sought on the resource implications for national and community broadcasters of digital radio implementation.

The non-commercial sector should be integrated into multiplexes with half the spectrum allocated to the commercial sector and half to the non-commercial sector. It is proposed that for every 3 notional national channels allocated to the ABC, one notional national channel would then be allocated to SBS or RPH. It is proposed that the commercial sector will fund the cost of operating the multiplex and this will assist the non-commercial sector in converting to digital. In consideration, this may require an adjustment to the radio fees charged to commercial operators.

Consistent with the body corporate structure outlined above, each multiplex body corporate will have a board of 7, comprising an independent chairman and a representative for each notional channel.

Drivers of Take-up and Content Regulation

Consumer interest in digital radio

Comment is sought on the key drivers that are likely to be important in support of the take-up of digital radio in Australia. In particular, comment is invited on the issues associated with the provision of new and niche audio services and innovative data services.

As noted in the Issues Paper, the price of receivers and the content will be the key drivers. The expectations of consumers are better quality sound, more variety and at an affordable price. Therefore this proposal effectively allows for an increase in

commercial channels by one-third or more (depending on bit-rate usage). As noted above, alignment with European frequencies is desirable to minimise the cost of receivers.

Audio services and simulcasting

Comment is sought on whether specific regulatory measures are necessary or appropriate to manage content and services on digital radio, including simulcast requirements, limits on non-audio services or limits on new digital-only audio services.

The only requirement should be that converting services operating on the AM band would be required to transmit in AM, DRM and Eureka simulcast – this ensures that consumers will always have one commercial and one national service available wherever they are, whatever technology they have.

The extent of simulcast for other services should be at the prerogative of the broadcaster, thereby encouraging broadcasters to assess what is appropriate for each licence area.

Data-only services

Comment is sought on the potential for data-only service providers to operate on digital radio platforms.

The experience with digital free-to-air television in this area has not resulted in any significantly useful datacasting services and consequently, as a consumer, this would appear to have limited use.

Other Regulation Issues

Submitters are invited to comment on any matters they consider relevant including any regulation issues that may be raised by Government decisions discussed above.

As noted in the Issues Paper and above, the introduction of digital will increase the variety and number of channels. This will result in an increasing convergence between commercial and HPON licences. As a result, the need for the HPON class of licences should disappear. Such stations should not be given an opportunity to convert to digital unless their HPON licence is converted to a normal commercial licence. Of course, the current HPON licence holder could always negotiate with the commercial broadcaster holding the digital licence to use a portion of their allocated spectrum.

In order to implement digital radio as described above, the structure of licensing will need to be changed with concepts such as kb allocation, multi-channel operation and multiplex body corporates incorporated into broadcasting legislation.

There should be periodic reassessments of the success of the digital licensing regime (say every 10 years) which could also examine the appropriateness of issuing additional commercial, national and community spectrum.

PART C: DIGITAL AUDIO SERVICES

Satellite radio

Comment is sought on potential role for new, digital audio platforms and on whether additional regulatory measures are necessary to facilitate or encourage new platforms (including satellite) and whether measures are needed to ensure services do not replicate terrestrial business model.

Comment is also sought on the potential for the L-Band to provide sufficient capacity for satellite delivered digital audio services while also meeting the requirements of terrestrial digital radio.

There should be restrictions on other distribution mechanisms until terrestrial digital radio is established. As Australia is a country with a small population, a so-called “systems war” between terrestrial and digital radio will discourage consumer acceptance and potential waste limited resources.

PART D: SAMPLE CONVERSION

In terms of a practical example, the following is a hypothetical situation for the implementation of digital radio in Western Victoria.

A single multiplex of 6 notional channels for 192kb would be issued, split as follows:

- 576kb allocated to ACE Broadcasters (3WM/Mixx)
- 384kb allocated to the ABC
- 192kb allocated to a community licence holder.

The national and commercial broadcasters would be required to simulcast their AM stations (3WM and 3WV) on AM, DRM and Eureka.

GENERAL

This submission has been prepared without reference to any other submissions, so hopefully it has some innovative comments and suggestions that are of use in establishing a framework for digital radio in Australia. If you require further elaboration on any of the content, please do not hesitate to contact me.

Yours faithfully,

Robin John Clough