

Pay television: the case for direct broadcasting by satellite

Leighton Farrell, Corporate Relations Manager of AUSSAT puts

AUSSAT's Case for the introduction of pay television and the adoption of satellite as one of the delivery technologies.

In recent years there has been considerable attention at Government policy level focussed upon television broadcasting in Australia. This attention has especially been directed toward the introduction of new and expanded services designed to extend coverage to the population who live outside our capital cities. The introduction of satellite technology with the successful launch of AUSSAT's first satellite has had a significant impact, revolutionising the traditional means of distributing broadcast services.

Characteristics of this technology such as point to multipoint transmission and cost independent of distance has created the capability to extend genuine national networking of services throughout the entire continent. It is, of course, these same characteristics which make satellite technology highly attractive as a means of distributing pay television (that is, subscription television) services.

The public appetite for a wider range of video services is, I believe, amply demonstrated by the growth in recent years of video outlets and video recorders. In this regard Australia has one of the world's highest penetration rates of VCR's per head of population.

Pay television presents a way to extend new services on a widespread basis across Australia.

The significance of the subscription nature

In considering pay television, it should be recognised that such a service is essentially a retail service; the relationship and the revenue flow is between the service provider or operator and the end consumer, the existing parallel being the hire of video movies from the corner store.

The relationship is quite unlike that existing in the free-to-air television service, where the revenue flow is between the service

provider and the advertiser. Given this recognition of pay TV as a retail service, AUSSAT's view is that the introduction of the service should be accompanied by the minimum possible regulation.

AUSSAT believes that the successful introduction of pay television into Australia will depend upon maximising subscriptions in the early stages through rapid penetration of the market place. The unique attributes of satellite technology, ie instantaneous near-nationwide coverage from day one, and the prospective availability of low-cost domestic satellite receivers make satellite broadcasting a logical choice as the primary medium for pay television delivery, at least initially.

AUSSAT's new satellites

The two AUSSAT-B satellites to be launched in 1991 and 1992 have been modified to provide a high performance beam which has the ability to transmit television signals to very small antennas suitable for direct-to-home delivery in urban areas. A particular feature of the high performance beam is that the primary coverage region includes not only the major capital cities but also the populated regions along the whole of the south-eastern seaboard and hinterland from Adelaide to Brisbane, and also extends as far north as Townsville and Cairns.

This feature ensures a very high proportion of the Australian population. Some 98%, will be able to receive television pictures delivered direct-to-home via satellite from day one of the service.

In locations where there is no direct line of sight to the satellite due to terrain or building blockage, and in areas where the signal strength is too low for a small domestic satellite antenna, the use of alternative, or secondary, delivery mechanisms (including satellite master antenna television reception system, cables or terrestrial multi-point distribution) will be necessary. The choice of second delivery system will no doubt be de-

termined by technical and cost considerations.

Encryption options

The security of the pay television signal is a fundamental requirement for any commercial pay television service.

A number of alternatives exist for formatting and encrypting the signal and providing a means of conditional access to subscribers.

Three candidates for an Australian pay television direct broadcast transmission system could be:

- B-MAC which is currently used in the delivery of The Homestead and Community Broadcasting Satellite Service, Remote Commercial Television Service and Special Broadcasting Service and provides the necessary addressability and encryption for a pay television system. These features are already built-in to the existing Australian B-MAC system.
- D-MAC which is the format to be used by British Satellite Broadcasting Ltd in the UK when they commence service in early 1990. The D-MAC decoders have a conditional access unit added to provide the required security and receiver addressability.
- Encrypted PAL with conditional access features is proposed for the Sky Television system for the delivery of pay television services throughout the UK (and Europe). Sky Television's conditional access systems, unlike other over-the-air systems, uses smart cards as a means of payment and facilitating consumer access to programmes.

The introduction of pay television in Australia will provide an opportunity for the public to have access to a wide range of new programmes material meeting specific needs of the community in a way not possible with the present broadcasting industry structure. AUSSAT can offer a variety of approaches to both commercial and technical aspects of