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OPINION PIECE

TV delivery: the new commodity

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With television growing beyond the free-to-air experience, terrestrial broadcast infrastructure is no longer the heart of broadcasting—it's now just one of multiple delivery modes. This paves the way for broadcast transmission specialists to relieve this burden from content providers.

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The emergence of digital broadcasting has reaffirmed the extent to which television has pervaded our lives. More choice, say the people. More programs in more locations. Whether it's World Cup football on the mega-screen in the park, the latest US sitcom in the pub, or music videos on a handheld, the overwhelming cry from consumers is for more TV in more places.

On a technical level, this is more easily achieved with digital technology compared with analogue. But there are commercial opportunities as well. There will always be those consumers who want the option of World Cup football on the handheld, or in the pub—as well as in the park. Ultimately, the same content will need to be delivered by multiple platforms, such as digital terrestrial, or satellite, or the Internet, or even 3G.

The aim is to reach the consumer in any way possible. In such context, content is king and delivery infrastructure the latest commodity.

This places the role of 'the broadcaster' under stark scrutiny. Traditionally, broadcasters have played the dual role of content provider and deliverer; but with so many delivery options available it no longer makes sense to invest in any one particular vehicle.

Consider the migration to digital terrestrial, which involves two quite disparate undertakings: the development or sourcing of digital content, and the deployment of transmission infrastructure. The first holds all the glamour and excitement of high definition, data-streaming and interactivity. Its challenges include the upgrading of studios and studio-equipment and conversion of existing

content into digital format. In contrast, the deployment of a digital broadcast network involves the systematic, site-by-site upgrade of every transmission site across the licensed region.

Enter the neutral host

In an industry where most commercial broadcasters compete on the basis of content, it makes sense to invest in content development. Yet the challenges associated with a digital terrestrial network are also vast, requiring significant capital investment and technical expertise. Moreover, by investing in digital terrestrial broadcast technology alone, commercial broadcasters limit their options. Multiple delivery modes undoubtedly provide greater access to markets.

This shift in philosophy has undoubtedly been amplified by the migration to digital—both from the point of view of delivery platforms available, and the capital investment required to achieve them. In the terrestrial arena at least, infrastructure companies that take responsibility for the ownership, operation and ongoing maintenance of transmission sites have already emerged, with broadcasters entering into a contract for the delivery of their content.

In such cases, the specialist infrastructure company applies its capital and technical expertise to deploying, operating, maintaining—even owning—the network, thereby freeing the broadcaster to focus on the content part of the digital equation. The significant issue is that the infrastructure company—or broadcast transmission provider—is independent of the broadcaster, and acts as a ‘neutral host’ of its services.

This paradigm shift in the broadcast industry reflects many other industries, where the global trend is towards skills refinement, specialisation, and outsourcing. As broadcasters morph into ‘content providers’, the efficiency and performance of ‘content delivery’ is similarly streamlined and perfected.

In addition to honing its broadcast transmission expertise, the neutral host is in the prime position to share infrastructure among multiple content providers. This not only minimises costs, but addresses the escalating issue of environmental impact and greatly facilitates the control of interference—particularly where adjacent channels and single frequency networks (SFN) are in use. The issue will be even more pertinent for mobile television networks, which potentially require a more sophisticated infrastructure and a greater number of transmission sites.

Three orders of sharing

Typically, there are three orders of infrastructure sharing. ‘First order infrastructure sharing’ is almost certainly the most common, comprising basic site co-location—towers and equipment

rooms hosting multiple transmission systems. It is often a site belonging to a particular broadcaster, from which others lease tower real-estate.

‘Second order infrastructure sharing’ is more intimate; this is where multiple transmitter channels are broadcast through a single antenna system using RF combining technology. This form of infrastructure sharing usually requires some form of central management—whether a team formed by a consortium of broadcasters (as seen in Taiwan and Australia for DTV) or a neutral host. As an infrastructure specialist, the neutral host is in the ideal position to ensure that all its clients’ services are delivered seamlessly.

The unique possibilities of digital broadcasting have spawned ‘third order infrastructure sharing’: the common multiplex. The efficiency of digital coding permits multiple services to be provided within the same amount of spectrum that a single analogue channel occupies. This means, for example, that six television services can be multiplexed together prior to being delivered into the transmitter.

The question then arises as to who owns and operates the multiplex and spectrum license. The neutral host can step into this role, permitting a single multiplex to offer varied content from different content providers.

Digital television heralds exciting times for the broadcast industry, particularly given the surging interest in mobile TV. But with opportunity comes change, and the philosophy shift confronting broadcasters is a large one. Once content providers embrace the possibilities of multi-mode delivery, and accept that terrestrial transmission infrastructure no longer need be the heart of broadcasting, even more opportunities will arise. Thus does the vehicle for TV delivery become a commodity and the meaning of ‘broadcaster’ head irrevocably towards redefinition.



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Company background

As the owner and operator of one of the most extensive terrestrial broadcast transmission networks in the world, Broadcast Australia provides transmission services for radio and television (analogue and digital) broadcasters and offers site sharing and infrastructure services.

With over 70 years broadcast transmission experience, Broadcast Australia plays a strategic role in developing new and emerging technologies—including Infocasting, Digital Radio and Mobile TV. The company's aim is to provide world-class broadcasting solutions throughout the Asia Pacific region by working with strategic partners, including wholly owned subsidiary, The Bridge Networks.

Broadcast Australia is a 100% owned subsidiary of Macquarie Communications Infrastructure Group, an entity listed on the Australian Stock Exchange (ASX code: MCG). Its sister company, the UK-based Arqiva, specialises in providing broadcast transmission solutions for fixed and mobile media applications.

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