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OPINION PIECE

The future of handheld services

By Clive Morton, Broadcast Services Director, Broadcast Australia (*Based on keynote presentation at BroadcastAsia 2006 International Conference*)

In April this year, the US National Academy of Television Arts and Sciences announced a new '*Oscars of Television*' Emmy Award category—a category specifically for programming on non-traditional viewing platforms, including 'mobile'. The category attracted the most entries of any in the 2006 Emmy series. This alone is an indication that the all-powerful Hollywood machine has sanctioned the concept of mobile TV. But does this mean that mobile TV will be the next killer application?

While we have come a long way, there are six largely inter-related areas that need to be addressed in order to establish mobile media services as a commercial reality.

1. Technology platform choices: In many countries, mobile TV services are already available on third-generation (3G) wireless networks. This mode is strictly a 'one-to-one' connection. Even with future multicast enhancements (MBMS and HSDPA), 3G technology presents long-term cell capacity limitations. As a result, 3G video is regarded as an 'interim technology'.

By contrast, the broadcast technologies offer a 'one-to-many' capability, with no increased demand on capacity, whether there is one consumer or several million consumers demanding concurrent access to the source. There is a multiplicity of broadcast-based standards to choose from—prominent among these are DVB-H, T-DMB, ISDB-T and MediaFLO. To a significant extent, the availability of spectrum is likely to be a key deciding factor between these technologies, along with any business model optimisation opportunities.

Big picture-wise, 3G will still play an important part, due to its suitability for one-to-one interactions such as on-demand video, mobile broadband and personalised downloads. By contrast, broadcast systems are ideally suited to mass viewing content such as live events, news and sport. A hybrid

solution is likely to be the outcome, where general information is carried over the 'broadcast' channel, and personal information is carried on the 3G 'telco' channel.

2. Handsets: In the traditional broadcast environment, technical standards have generally been developed collaboratively well ahead of full commercial services. Mobile TV development is starkly different, where the commercial products development and the traditional evolution of a standard appear to be in a competitive race.

Commercial deployment could drive handsets in one of two directions: it may force a de-facto standard, or it may drive the handsets and terminals into full compliance with an endorsed standard.

The current situation with DVB-H provides an ideal case-in-point. While it enjoys a single defined RF channel standard, there are currently two standardisation efforts for the data layer, plus two separate encoding standards. These issues become increasingly complex as additional platform standards—such as T-DMB, MediaFLO and ISDB-T—come into the mix.

If different countries, or country regions, select different technical configurations there will be major interoperability issues. Across Asia, mobile phone users have come to expect that they can roam easily wherever they travel. What a great shame it would be if the mobile TV service doesn't enjoy similar flexibility.

It is my view that it will not be long before the handset manufacturers develop multi-standard capable handsets. Ultimately, there needs to be convergence on a single interoperable specification to create a global market, as there has been generally with other DVB equipment.

3. Content rights: This will be a major battleground, as content houses fight to assert their rights to new income streams. Many of these rights were set down well before the concept of mobile media was contemplated. For this reason, many aspects of the content rights are unclear. At the 2005 IBC Conference, Ray De Renzo of MobiTV (USA) reported that in 50 per cent of cases they encounter, the rights holder for the video content is clearly authorised to deploy it to mobile TV. In 25 per cent of cases the opposite situation is apparent, while in the remaining 25 per cent of cases the situation is unclear.

4. Regulatory environment: Content, spectrum and standards, plus spectrum access are the three main elements to consider here.

With respect to content, many of the regulatory content rules were constructed in the analogue era, rather than today's more challenging multi-channel digital environment of itinerant service offerings. In Australia, for example, different rules apply to the use of content in a telco, broadcast or Internet environment. But with a mobile TV handset, it is all of these in one device, making the old boundary rules artificial. This may prove to be a major challenge for regulators.

The availability of spectrum is likely to influence the choice of platform technology and standard. Largely for historic and administrative reasons, standards specifications have prescribed specific spectrum blocks for particular delivery technologies. As a result, restricted access to certain spectrum blocks can reduce the technology options.

Access to adequate spectrum capacity will also be a key issue. Where several spectrum blocks are available, there could be the opportunity for multiple bids. Where spectrum is less plentiful, management will be more challenging, and may be through regulatory determination, or through access based on commercial terms. My message to the regulators (who are naturally conservative and risk-averse) is to create a framework that is not unnecessarily restrictive to opportunities that future technology can bring.

5. Consumer behaviour: Determining precisely what the consumer wants will be vital. Results from Broadcast Australia's Sydney DVB-H trials and other market research, have provided an initial snapshot of consumer reaction. In some cases, it is turning up unexpected results. The level of in-home viewing has been quite significant (approximately 25 per cent), showing a clear need for in-building penetration. In our own Sydney trial (and similar trials in the UK and US) we've found that the vast majority of users opt for a 'favourite four or five' services, chosen from an eclectic mix of content comprising approximately 16 services.

It is also believed that mobile TV has the potential to reduce subscriber churn. This typically runs at around 20 per cent in the mobile sector, as compared with a well run pay-TV network, which exhibits churn of only round 10 per cent.

6. Business model: The general view is that mobile TV will be an enhancement of today's mobile phone. In this regard, development of the mobile TV business model requires core business knowledge in three distinct business areas: content mix, bundling and branding; the nature of the existing mobile phone consumer relationship; and the required broadcast network infrastructure including single frequency network expertise. How these groups come together will be an important question, as will be the question of who is best positioned to drive the consumer relationship—the big-brand telco, the big-brand content house, or the broadcaster? If it is a broadcaster, how will this

work in a multi-sourced competitive content environment? Other factors that impact on the business model include access to spectrum; content rights, exclusivity issues and charges, and the commercial impact of patent pool fees for elements of particular mobile TV standards.

Progress on these six fronts will play a major role in transforming the technology of mobile television into a global business success. If carriers, content creators and media outlets battle each other for customer ownership, then such progress will be thwarted. The future, in my view, is bright. We have the technology, the broadcast infrastructure and the creative genius to produce compelling mobile content. We also have a world of consumers hungry for multimedia products and services. All we need now is for the lawyers, politicians and business executives to develop an environment of collaboration that will allow mobile television to reach its full potential.

Clive Morton – Broadcast Services Director

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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