



From broadcasted to personalized TV Consumer in control



Photo courtesy of Ericsson.

The mobile TV tipping point

By this time next year, Mobile TV will have truly arrived in Europe with established mobile companies such as T-Mobile and 3 already offering services and Dublin-based Solaris Mobile launching in Q1 of next year. The question is, are all the pieces in place to make mobile TV a success in the region? Helen Jameson investigates further.

A recent venture between SES and Eutelsat has resulted in a new mobile TV company. Solaris will be the next mobile TV service to launch in Europe. Mobile TV has seen winners and losers in the region. The first mobile TV service was launched by 3 Italia and has been a success. On the other side of the coin, BT's Movio was shelved recently. However, now satellite is getting involved and SES and Eutelsat are convinced that their hybrid approach of satellite and terrestrial video delivery will be a winner. Mobile TV presents a huge opportunity. Certainly in Europe the vast majority of people own a mobile telephone and this is where companies see the business taking off. Internet services have already been added to phone capa-

bilities along with music and radio so, for mobile operators and handset manufacturers the thought is, why not add TV to that package? It is just the next logical step isn't it?

Along with IPTV it is the buzzword of the moment. Mobile TV was first rolled out in Europe in Italy by the 3 network and since then, further providers have joined them. 2008 is an Olympic year and the Games are expected to be a catalyst for demand for mobile TV services. However, mobile TV is consumed in a very different way to conventional TV. Whereas conventional TV may be watched in large chunks by the family, over the course of an evening for example, the way Mobile TV is used is very different. People may use it simply on



public transport whilst completing their daily commute. Perhaps they may use it at lunchtime. It is down to lifestyle as to when they use the mobile device to access television. Then the user will probably have to view advertisements before gaining access to the programmes they wish to watch. It is a whole new ballgame.

However, the business model for the service does not appear to be in place, or at least to the extent that it should be. Where will the monetary value of mobile TV come from – will it be through advertising, through subscriptions, will people want to trawl through numerous advertisements to get to the main feature? In addition, the costs of deploying an efficient mobile TV network via satellite integrated with terrestrial networks are very high. To begin with, it will perhaps be useful to look at what has been happening in Asia.

Mobile TV: the Asian experience

Initial reaction to Mobile TV in Asia is not conclusive by any means. TU Media were the pioneers of the mobile TV concept in the region and brought it to market last year but in the process they have announced substantial losses and though Mobile TV could be a great success, particularly in the Asian region, there are challenges that have not yet been overcome. The Cable and Satellite Broadcasting Association of Asia (CASBAA) recently commissioned a report on Mobile TV and this identified the ten main points that would need to be taken into account for Mobile TV to become a commercial success. They were:

1. The network;
2. Ease of use;
3. The ecosystem;
4. Devices;
5. Coverage;
6. Revenue;
7. Regulation;
8. Content;
9. Advertising; and
10. Lifestyle.

There can be no doubt that mobile TV holds huge potential for revenue for broadcasters and advertisers but before this revenue can be realised there are many pieces of the jigsaw that must be pieced together and that must work effectively next to one another. The CASBAA report highlighted the fact that the Asian market is expected to provide the biggest subscriber base with 76.3 million subscribers by 2012 out of a projected global total of 156 million. At present, the number of subscribers stands at 15 million. To make this impact, the business model has to be right. The CASBAA report encourages integration between content providers, network operators and device manufacturers. Each must understand the other and the user to achieve their collective aim.

In Asia, Mobile TV is at a crucial tipping point. The ultimate aim must be to provide smooth and efficient Mobile TV services. From a technical standpoint, it is ready to be deployed but both the advertising and subscription services are not yet advanced enough to cope and we must remember that Asia is a vast continent with a fragmented population and a wide spectrum of difference from one market to the next. Different technologies are available, different devices, and some markets are more advanced than others. There are then issues connected to infrastructure. Surely it will matter whether you live in a big city or rural area as to whether you can even receive Mobile TV, unless there is a satellite component.

In-Stat, a Arizona-based high technology market research firm with offices in Asia-Pacific and China, has found significant fragmentation in standards for digital mobile broadcasting. Several standards are being used, several in certain countries, and this is predicted to continue in the future. In-Stat's recent research concluded that DVB-H is the most widely used digital mobile TV broadcast standard in terms of operators having launched services. They also dis-

covered that the most popular mobile TV broadcast services are those offered without a subscription such as those in Japan or South Korea. However, mobile TV broadcast services are viewed by many as a way to generate revenue, so many services will be subscription-based. The actual market for digital mobile TV broadcast services is expected to produce revenue of US\$12 billion in 2012.

In-Stat also addressed the broadcast mobile TV market in China and predict that the service will take off in earnest in 2009. This year will be key as broadcasters deploy and optimise networks and also explore new business models. Then, next year, terminals and equipment will be ready for rapid deployment. It is expected that subscribers for mobile TV in China will grow from 300,000 in 2007 to 36.2 million in 2012 and that China's digital mobile TV chipset revenue will grow from US\$1.5 million in 2006 to US\$196.9 million in 2012. At present, In-Stat believes that CMMB and DMB-T/H are the two most mature mobile TV technologies in China and that the analogue TV market will peak around 2009.

Using satellite for mobile TV in Asia

At CommunicAsia and BroadcastAsia 2008 in Singapore, Speedcast and Alcatel-Lucent announced plans to jointly market, deploy and operate a shared, hosted DVB-H platform for mobile TV operators in Asia. The objective of the collaboration is to enable the seamless delivery of digital video content to operators for transmission to devices supporting the DVB-H mobile TV standard.

Alcatel-Lucent and Speedcast will leverage their respective technologies, infrastructure and content delivery solutions to provide operators around the region with a state-of-the-art DVB-H head-end. This hosted service will enable mobile TV service providers to deliver more than 20 TV channels via satellite (in the Ku-band and in the C-band) to their transmission towers for terrestrial broadcast (in the UHF band) to DVB-H handheld devices.

The solution combines all the elements required for a successful mobile TV service including the service platform, a security and encryption technology, the platform for encoding into a DVB-H compatible format, the satellite delivery to terrestrial infrastructure and a very large number of TV channels with world-class content – across the major genres spanning news, music, sports, lifestyle and entertainment – which can be customised for different ethnic audiences.

"This hosted mobile TV broadcast offering will help lower the risk to service providers associated with introducing a new service, while at the same time giving them the opportunity to provide their customers with attractively priced services and richer content offerings," said Pierre-Jean Beylier, Chief Executive Officer of Speedcast Limited.

The new service has been developed with cost-effectiveness a major priority. It also boasts a faster time-to-market.

Europe

So, this gives us an idea of the state of play with regard to mobile TV in Asia, but what about in Europe? Several mobile TV services have been launched across the continent. In 2007, T-Mobile launched a re-vamped mobile TV service that gave customers access to Premiership football, hit TV shows and video on demand. 3 Mobile has a well-established mobile TV in operation in Italy that has proved very successful. So there are precedents to build upon. However, there are still many obstacles that must be overcome before mobile TV can prove itself.

The availability of spectrum will be the key to successful deployment of mobile TV in Europe. In 2007, Mobile network operators in Europe called for more spectrum to be made available for the provision of mobile television, echoing one of the findings in the final report of the European Mobile Broadcasting Council (EMBC), an initiative of the European Commission. While the EMBC report highlights the great variety of technical solutions for the provision of mobile broadcast services, such as 3G network-based video streaming, MBMS and DVB-H, DMB and satellite broadcast solutions, it



Photo courtesy of Broadcast Australia.

notes that a lack of spectrum could limit the development of some of the new mobile TV platforms available.

"Availability of frequencies and flexibility to allow suitable spectrum to be used for mobile TV have to be addressed as a matter of urgency in order to launch services as soon as possible," said Kaisu Karvala, Chair of GSM Europe, the European interest group of the GSM Association. The provision of DVB-H services, in particular, requires the use of spectrum in the UHF broadcasting band. This spectrum is still heavily utilised in Europe for analogue and digital broadcasting, but some countries have succeeded in freeing up appropriate frequencies and GSM Europe calls on the rest to make their best effort to do so.

"It is important, however, that the availability of spectrum for mobile TV in the UHF band does not compromise the availability of the digital dividend for a wider range of services, including mobile broadband," Karvala said. GSM Europe believes that part of the spectrum that will be released by the switchover from analogue to digital television should be harmonised as widely as possible for usage across Europe for mobile telecommunications services. "We are at a crucial point in time. The market window is open now, spectrum can feed the evolution of exciting services and innovative technical solutions - for the shorter term as well as for the long run," Karvala added.

GSM Europe believes that mobile TV could be an important service proposition for the customers of its members. Initial mobile TV commercial offers and trials show sufficient interest from users to justify further development of the services already launched in some countries. Mobile TV services can be offered through a variety of platforms and technologies and increasing convergence allows multiple technologies to coexist in one service proposition. This allows mobile operators to combine different technologies into an interac-

tive mobile TV service.

DVB-H Standard accepted by EU

The European Commission recently decided to add DVB-H to the European Union list of standards and this move is hoped to create a foundation for the harmonised provision of telecommunications across the EU. Adding DVB-H to the list is seen as a step towards the establishment of a single market for mobile TV in Europe, therefore enabling all EU citizens to watch TV on the move. Predictions indicate that mobile TV could reach a total of 20 billion euros in revenue by 2011 and could serve some 500 million customers worldwide. The Commission considers 2008 to be a crucial year for Mobile TV take-up in the EU due to important sports events, such as European Football and the Summer Olympic Games, which will provide a unique opportunity for raising consumers' awareness and for the adoption of new services.

Viviane Reding, EU Commissioner for the Information Society and Media said, "For mobile TV to take-off in Europe, there must first be certainty about the technology...the next steps for implementing the EU strategy on mobile broadcasting will include guidance on the authorisation regimes as well as the promotion of rights management systems based, as is DVB-H, on open standards."

An EU-wide adoption of DVB-H will provide operators and industry with the necessary market scale to launch mass Mobile TV services across the EU. A European common standard will also benefit consumers, who will be able to watch TV on their own phones or mobile devices at any time, anywhere across Europe. After publication of the Commission's decision in the EU's Official Journal, Member States will be required to encourage the use of DVB-H. This clear support to the DVB family of standards is also an important signal



given to other countries about to take a decision on the technology for digital and mobile broadcasting, using DVB-T, DVB-H and DVB-SH.

DVB-H is currently the most widely used standard for Mobile TV in the EU. It is currently between trials and commercial launch in 16 countries. Commercial DVB-H services are already available in Italy, with further launches expected in Finland, Austria, France, Switzerland and Spain.

A transparent intellectual property rights regime, based on fair, reasonable and non-discriminatory terms and allowing low price of devices, is key to the success of Mobile TV. The Commission will therefore continue to closely monitor progress made. Efficient procedures for authorising Mobile TV operators are also essential for the fast take-up of the service. In February 2008, the Commission discussed best practice for Mobile TV authorisation with industry and Member States, asking for contributions on the issue from all stakeholders. Guidelines on best practice are currently under preparation to help Member States to deploy Mobile TV without delay. Clear licensing regimes will give industry the legal certainty they need to launch their Mobile TV services without undue impediments.

Solaris – the new kid on the block

Solaris Mobile is the joint-venture company formed by Eutelsat and SES ASTRA to provide services in the S-band. The company has officially established its corporate headquarters in Dublin, Ireland. The S-band payload, to be integrated onto Eutelsat's W2A satellite and due for launch in early 2009, will provide TV, video and radio plus two-way communication to a variety of handheld mobile devices such as phones, laptops and portable media players. Solaris has been officially and enthusiastically welcomed by the Irish Minister for Enterprise, Trade and Employment, Mary Coughlan who commented, "This project is the first investment in Ireland by international satellite operators and as such is a unique investment for the country, particularly as it is being made by two of the highest profile brand-name companies in the global satellite communications industry." It is also projected that 50 high-skilled jobs will be created by the new company over the next three years.

Solaris Mobile will operate in a 2.00GHz frequency band. The S-band is reserved for the exclusive use of satellite and terrestrial mobile services and sits alongside UMTS frequencies that are already used across Europe for 3G terrestrial services. At an event in Dublin arranged to mark the establishment of the company in the city, a demonstration of mobile TV service was provided by Alcatel-Lucent, one of the world leading companies developing the enabling technology.

The infrastructure will have the capability to deliver a wide range of broadcast and multimedia services on an anytime-and-anywhere basis. Satellite networks will now be able to compete with, and complement, terrestrial networks in the provision of broadcasting services to the mobile sector. The Dublin headquarters will handle all corporate responsibilities for Europe including regulatory support, sales and marketing, brand awareness, finance, and compliance and legal issues. It will identify new business opportunities, and negotiate and manage partnerships with broadcasters, content developers, network operators and handset manufacturers.

Steve Maine, Solaris Mobile CEO, said: "This venture is of major strategic importance to our parent companies as it ensures a first mover advantage in Europe for satellite broadcast services to the mobile industry. As this is the first joint venture between SES ASTRA and Eutelsat, it was vital to find the right location for the company HQ. "We assessed several possibilities but decided that Dublin would deliver this project to our tight deadlines and with access to the right resources and communication lines."

Solaris is also compatible with the Galileo satellite system, due to become operational in 2013, that will give interactive and location-based services to Solaris customers.

Solaris anticipates that it will also provide services for authorities and civil protection such as data gathering from vehicles, moni-

toring of rescue operations and the restoration of communications in the event of terrestrial outages. Solaris also believes that it will be a catalyst for a wide range of sectors including broadcasting, telecoms, transport, network operators, equipment manufacturers, content producers and the automotive industry.

Keys to success

The case for mobile TV appears to be a strong one. The amount of mobile voice and data subscribers has to be an indicator of the popularity that mobile TV could potentially realise. Surely it must when so much investment, development and trials have gone into the new networks, services, content and terminals. In order for mobile TV to succeed, there are several levels to look at. Firstly, watching mobile TV must be an enjoyable experience for the user. To be flooded with advertisements is often not what the average user would prefer. Content will need to come across extremely well on a small screen and will need to be specially adapted for mobile TV use. Decisions need to be made on how the service is to be monetised – will it be through advertising and subscription? There is also the issue of spectrum.

In order to launch the mobile TV services, the availability of frequency and flexibility to allow suitable spectrum to be used for mobile TV must be addressed. This may be made easier when the digital switchover frees up spectrum.

Mobile TV services can be offered through a variety of platforms and technologies and increasing convergence allows multiple technologies to exist in one service proposition, allowing mobile operators to combine different technologies, as we have seen with Solaris, into an interactive mobile TV service.

Photo courtesy of Nokia.

