

# MOBILE TV NEEDS MAGNIFICATION

MOBILE TELEPHONES WILL NOT MOVE FULLY INTO THE LIVE TV MARKET UNTIL THE STANDARDS ARE AGREED AND THE BUSINESS MODELS CLARIFIED.

The success of Apple's iPod video player and Sony's PlayStation Portable suggests that there is user demand for mobile TV services. Mobile telephone operators could be the ultimate beneficiaries of this new market, although a number of barriers exist. Overcoming competing technologies and the development of unique content will be key, as is consumer acceptance.

So you think you'll never watch mobile TV? Then how is it that the iTunes Music Store sold just over one million music videos, TV episodes and short movies in just 20 days?

The mobile TV market is surging, with the mobile phone emerging as a credible platform. With mobile phone penetration among adults in the western world almost total, and with handset sophistication improving, it is unsurprising that content producers and operators see this as a major opportunity.

Operators have not held back. Orange provides 50 channels of TV to its French customers; Verizon's US vCast service has been offering video content since January 2005; and Vodafone in the UK is collaborating with BSkyB to provide 19 TV channels, that includes MTV and The History Channel.

All of these suppliers are exploiting the latest, higher bandwidth capabilities of their networks – such as 3G in Europe – to serve video to mobile phones.

But there is a problem, and it is quite a major one: 3G networks are not suited to TV.

"3G does not have the bandwidth simultaneously to supply handsets with the quality real-time content that users want," says Peter Cochrane, former chief technology officer of BT. "The handsets still suffer poorer battery life and performance than their 2.5G counterparts. And bandwidth turns out to be closer to 56Kbps for reasonably populated mobile coverage."

Most specialists think that true mobile TV will require a technology similar to broadband. There are currently a number of competing



standards, all with their advantages and disadvantages (see box *Competing standards*). Japan has its own standard, STD-B24, while Qualcomm, originator of the Code-Division Multiple Access (CDMA) mobile phone technology, has gained some traction in the US with its proprietary MediaFLO technology. But a lack of support from handset manufacturers means that MediaFLO is likely to stay US-only or die out reasonably quickly.

## DIFFERENT STANDARDS

With the market still nascent, the standard that looks likely to win is Digital Video Broadcasting to Handsets (DVB-H), a technology derived from Digital Video Broadcasting Terrestrial (DVB-T). Its main competitor is Terrestrial Digital Multimedia Broadcasting (T-DMB), an extension of the digital radio Digital Audio Broadcasting (DAB) standard.

"There are advantages to both," says Andrew Moloney, marketing manager of Radioscape, a radio software provider. "DVB-H makes more sense for urban areas," he says, "whereas T-DMB is better suited to remote areas."

But while T-DMB requires less of the radio spectrum to work compared with DVB-H, making it more suitable for areas with fewer transmitters and for countries that have little free radio spectrum, this acts against it for revenue generation. "T-DMB's small bandwidth means you can only fit in four channels," says Yannick Levy, CEO of specialist processor manufacturer Dibcom. "To offer 30 or 40 channels will cost four to five times as much as it would with DVB-H."

Of the two standards, DVB-H also has the most support from handset manufacturers. Motorola, Sagem and BenQ have all demonstrated DVB-H handsets, as has Nokia.

Nokia's decision is likely to be key. It has already promised to roll out DVB-H across all its products and Anssi Vanjoki, executive vice president of Nokia, has stated on the record that T-DMB support will not be forthcoming.

As a result, says Dibcom's Levy, most regions are likely to adopt DVB-H. "It's more standardised, it's solved more of the technical issues thrown up, it's being used in more trials and there are more and more DVB-H phones being produced."

#### TV TRIALS

Only one major trial has used T-DMB. South Korea tested it during 2005 in Seoul and plans to offer free services in 2006. A second trial in Germany will launch in 2006 and is set to last two years. Smaller trials are planned or are ongoing in France, Germany and the UK.

In contrast, DVB-H trials are already under way in Australia, France, Germany, Italy, the Netherlands, Norway, Portugal, Spain, Taiwan, the US and the UK, with more scheduled for 2006. Switzerland, Indonesia, Thailand, Germany and Russia are all set to deploy DVB-H in 2006 as well.

The biggest DVB-H trial occurred in Finland in 2005. It involved 500 people in Helsinki and gave access to national TV as well as others like CNN and Euronews. In general, users spent approximately 20 minutes a day watching mobile TV, although more active users watched 30 to 40 minutes per session.

#### COMPETING STANDARDS

##### • 3G

*Strengths:* Networks already exist and have customers.

*Weaknesses:* Does not scale well; better suited for clips than longer content.

*Likelihood of success:* Weak in the long-term.

##### • DVB-H

*Strengths:* Low power consumption. Data throughput four times T-DMB. Can be included in DVB-T multiplex.

*Weaknesses:* Requires more infrastructure investment than T-DMB; greater bandwidth requirements mean it's harder to find free spectrum for DVB-H services.

*Likelihood of success:* Strong, although unlikely to achieve universal dominance.

##### • MediaFLO

*Strengths:* Draws on strengths of other technologies such as DVB-H; backed by originator of CDMA standard.

*Weaknesses:* Has little support (none outside US).

*Likelihood of success:* Slight.

##### • STD-B24

*Strengths:* Already in use.

*Weaknesses:* Not adopted anywhere outside Japan.

*Likelihood of success:* Small.

##### • T-DMB

*Strengths:* Easy to adopt into existing DAB network.

*Weaknesses:* Offers fewer channels to content providers; requires more power.

*Likelihood of success:* Moderate – will capture some regions, but not the majority.

Nearly half said they were willing to pay for the service in the future. Members paid €4.90 a month, although half thought €10 was a reasonable charge, preferring a fixed-priced model for the most part. Some were interested in a pay-per-view model for buying access to specific content such as football matches.

#### CONSUMER RESISTANCE

However, the trial did not highlight some of the consumer resistance to mobile TV. While those that used it did admit to liking it, other research suggests a majority of consumers are unwilling even to try it.

Online researcher Entertainment Media Research found that 70% of UK consumers have no interest in watching TV on their mobile phones, citing poor quality and high prices as deterrents. Analyst firm Forrester found that only 5% of European consumers would look for TV functions in a new phone.

Peter Gardner, communications sector partner at 3i, has a pragmatic view. "Our belief is that TV on the handset will be a tick list item, like a camera or a colour screen, which is why we invested in Dibcom."

Network and content providers therefore need to make mobile TV a must-have, offering unique content, in addition to existing TV channels. Some already have such plans: Verizon will offer specially created episodes of the hit TV show *Lost* in 2006, an improvement on the one-minute 24 'mobisodes' offered by Fox in 2005.

In conjunction with that approach, the portability and interoperability offered by the iPod needs to be embraced by the mobile TV world, says Jim Olson, CEO of SkyStream, a supplier of Internet Protocol (IP) video delivery hardware. "Consumers are really excited by that – by being able to visit relatives, show them their videos and play them their music, whether it's on a stereo, a computer or a TV."

Olson suggests that a 'push' model, where content is downloaded during periods of network calm, can augment the live streaming of TV channels, improve the quality of the videos, reduce bandwidth requirements and give consumers this freedom – within certain digital rights management restrictions.

Gary Hughes, chief executive of Digital 5, provider of home media centre software, agrees that portability of content will be one of the main draws for consumers. "In the long term, there's going to be convergence. People are going to bring their mobile phones into their homes and they're going to be control points on a seamless home network." He feels that for mobile TV to become a success, consumers will need to be able to seamlessly move content from phone to home entertainment system to PC and back. ■

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