

## > Introduction - Mobile TV (broadcast & streamed)

**Live broadcasts, on-demand streaming and video downloads; just what does 'Mobile TV' mean, when will it be available and will it be any good?**

### Mobile TV Defined

Mobile TV is the broadcast of live TV to an adapted mobile phone handset *or* the streaming of an on-demand programme to a 3G phone. Mobile video downloads are the equivalent of buying the programming outright as you would a DVD or video cassette and so should not be included in the definition of mobile TV.

TV 'broadcasting' is also known as linear television as the broadcaster determines the schedule; think BBC and ITV. 'On-demand' (or parallel) programming is more like Pay-per-View; you pay to watch once. Both are mobile TV.

### Broadcast vs. Streamed

Two linear (broadcast) mobile TV technologies are currently competing for dominance: 'Digital Video Broadcasting-Handheld' (DVB-H) – a mobile version of the format behind Freeview on a regular TV or PC – and 'Digital Multimedia Broadcasting' – a version of DAB (the digital radio technology). These services are truly 'broadcast' in the sense that the same signal is broadcast across a large area regardless of whether anyone is watching.

In the other corner, streamed mobile TV is on the one hand a cellular service (as are mobile voice calls) and also like watching a movie clip on the Internet. Like streaming over the Internet, which uses Internet Protocol (or IP), streaming over the mobile phone networks is capacity constrained. Unlike broadcast

mobile TV, there is a direct relationship between the number of people watching and the bandwidth of the mobile phone networks' streaming servers.

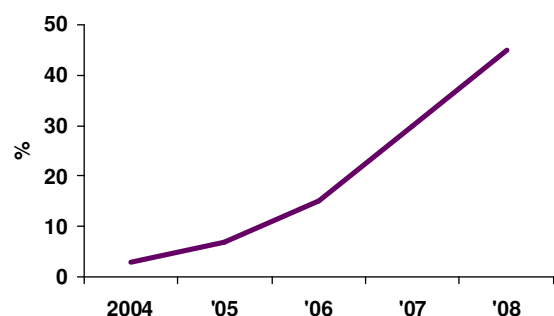
Therefore streaming to a few viewers is cheaper than broadcasting to a few and streaming to many is more expensive than broadcasting to many. But then again the way people watch linear and on demand TV differ; the former being subject to peaks, the latter being more continuous since there is no schedule to follow.

### Hardware Differences

This is a key difference as well. To pick up a broadcast mobile TV programme (e.g. DVB-H) a handset needs a 'second aerial'; the first to handle the everyday functions of the phone and the second to pick up the TV signal. Streamed mobile TV is sent in data packages rather like an SMS using existing cellular circuitry.

For this reason streamed 3G (on-demand) mobile TV has arrived already – indeed several services were launched this year – though

**3G Penetration of UK Handsets**



usage remains low given the low penetration of handsets. Upper forecasts for streamed 3G mobile TV services must be bound by the forecasts for number of 3G handsets themselves (see above chart).

Quite how far below the penetration curve of 3G will streamed mobile TV fall is unknown. However since a large minority of consumers are threatening never to switch to digital TV in their homes, it is quite a leap of faith to assume everyone who has a 3G mobile will watch TV on it. On the other hand broadcast (live) mobile TV is not likely to arrive much before 2010 by the time the new infrastructure is built

## The Viewing Experience

Screen size and battery life are unlikely to be affected much by whether the programme is broadcast live or streamed on-demand, however streamed mobile TV is likely – and does so far – suffer from the same ‘buffering problems’ that can be experienced watching TV on the internet.

Live broadcast technologies like DVB-H and DMB deliver a smoother experience, though since the handsets are not on general release yet it has to be assumed that the better picture comes at the cost of a larger handset since there are essentially two devices inside it.

## Content Owners & Advertisers

The business model has yet to be proven and will be as much to do with how consumers use mobile TV as what is technically possible. If an advertiser or content owner wants to reach viewers of live broadcast mobile TV they will need to approach the licence holder; the mobile equivalent of BBC or ITV.

If they want to reach viewers of mobile TV streamed over 3G networks they will need to approach companies like Incentivated who will use the mobile internet to deliver the content and advertising. Whether the mobile TV programme is sponsored or interspersed with advertisements is a commercial decision.

With the possibility of a proliferation of mobile TV services there is likely to be more programming paid for entirely by advertisers.

## How Will Users Watch Mobile TV?

Incentivated believes mobile TV will forever be a second choice medium for watching TV. Viewers will continue to make appointments for broadcast (live) TV and make sure they get home in time for their favourite soap opera on the main box. On demand TV is by definition always available and therefore most people will choose the richer experience of a larger screen.

Don't forget the audio part of mobile TV. The sound is likely to be drowned out unless the viewer is wearing earphones and therefore the experience is never going to be a group one.

However mobile TV will be a very useful way of re-watching a short clip that warrants a repeat, ‘snacking’ to fill ‘grey time’ or catching part of a programme on the move; for example if the viewer's commute is delayed and they are prevented from getting home in time.

There will of course be many times when without a mobile phone you would be unable to watch a live programme, e.g. a football match, but portable analogue televisions were supposed to become mainstream and they never did (ok, everyone has a mobile phone already!)

## What Will Be Available To Watch?

We've answered this last as we think the direction of causation will be as follows. With 10-20% of the pixels (resolution) of ‘normal’ TV and 1-2% of the pixels of HDTV, mobile TV is likely to represent a small fraction of total TV viewing.

Therefore with limited viewing figures, mobile TV revenue from advertising or subscriptions will be correspondingly low and production budgets will remain focused on ‘normal’ TV as a result.

We are not saying that programmes will never be made just for mobile TV. What we are saying is that most programmes that appear on mobile TV are likely to have been either shown on ‘normal’ TV first (for on-demand services) or made for ‘normal’ TV and also reformatted for live mobile TV because it is relatively easy.



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