

## Dealing with demand

by Bill Roult, Vice President Operations, MobiTV Inc

Demand for mobile broadband is increasing rapidly, faster than carriers can add capacity. Some carriers have imposed caps on data tariffs and are using every technology in the book to stretch their resources. Historically, live events - sports, breaking news, entertainment etc. - have driven peak mobile TV usage. To deal with these peaks while building a long-term solution, operators must strike a balance between network performance and demand for media-rich services - including mobile TV and video.



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Consumer demand for mobile broadband and data services is increasing at a rapid rate. This insatiable thirst for mobile applications, Internet browsing and messaging services risks hampering the performance of wireless networks. As a consequence, some carrier operators have imposed caps on data tariffs, and they are investing heavily in network upgrades to address the drain on network capacity. Operators must now strike a balance between sustaining the performance of their networks and capitalising on the demand for rich media services, such as mobile TV and video.

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The consumer demand for mobile TV and VoD (*video on demand*) is being driven by the proliferation of smartphones that deliver personalised and targeted content that can be accessed immediately. Smartphones are equipped to stream content over 3G or WiFi - in fact access to YouTube or other video services is a standard feature on iPhone and Android devices. The iPhone and other

leading smartphones represent a paradigm shift in terms of expectations regarding watching live TV and VoD on a mobile device, educating users to the possibilities that the mobile platform can offer.

Historically live events have driven mobile TV usage. The US Presidential election in 2008 was one of the most publicised elections

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in history, with both parties making full use of TV, the Internet and social media to engage with voters. The televised debates between the candidates were eagerly anticipated events, and voters on all digital platforms, including mobile, watched them. The mobile TV viewership for the debates was unprecedented. Mobile news channels that broadcast the first debate reported a 64 per cent increase over the average daily viewing. The trend continued with figures rising exponentially for each debate, 84 per cent for the second, 111 per cent for the third, culminating in a staggering 373 per cent increase on election night.

Barack Obama’s inauguration attracted a similar sized audience to the one on election night. In fact, on this occasion the American public was so keen to watch their new President deliver his inauguration speech that the Internet collapsed under the pressure of the requests to watch the speech online. However mobile subscribers were still able to tune in over wireless networks.

These viewing spikes are not restricted to politics, as live sporting events have also attracted large audiences. This was reflected by the response to the US launch of the ‘NBA League Pass’, the first dedicated application to broadcast live streaming and on-demand coverage of a major league sport. It provided users with access to a full season of live NBA league matches along with a host of other interactive features, such as highlights, player statistics and integration with social media. Available to iPhone and Android users the application ranked ‘number one’ on the Apple Apps Store. Despite this application’s US\$39.99 cost, price did not prove to be a barrier for this sort of content.

The success of the NBA League pass demonstrated that consumers were willing to pay for premium content and access to live programming. Live Sports have continued to drive mobile TV usage. The 2010 NBA Playoffs on ESPN Mobile TV created significant viewership spikes during the live games. More than twice as many people tuned in to that channel for the playoff matches, as compared to non-game days.

Consumers are also interested in breaking news, live events and entertainment. The mobile channels that broadcast Tiger Woods’ press conference, in which he made his famous *mea culpa* to the world, experienced a three times jump in viewing figures compared to the daily average. The Michael Jackson memorial service also attracted a large audience; FOX News, MSNBC and ESPN Mobile TV all experienced an increase in ratings.

Audience peaks associated with live events drive mobile TV engagement and usage. Consumer appetite for mobile applications and services is already stretching the capabilities of mobile networks. This will force operators and their technology partners to consider new content distribution methods to ensure that subscribers receive a smooth and consistent mobile TV service. Being able to scale capacity to meet the demand for live TV and VoD whenever peaks in mobile TV usage occur, is crucial for the operator’s ability to sustain those peaks and generate additional revenues.

This can be achieved by deploying a redundant and reliable service platform with an architecture that ensures that severe peaks in mobile TV demand can easily be met. There are other variables that operators need to consider when providing live mobile TV services such as overall network capacity and the potential impact on other core services, like voice. By intelligently prioritizing traffic, and utilizing both cellular and Wi-Fi networks for mobile TV services, carriers can minimize network bottlenecks that can negatively impact the quality of the mobile TV experience for end-users. In addition, by deploying specific technologies such as bandwidth adaptation, network awareness and stream switching the bit rates of the streamed data can be dynamically adjusted to match existing network conditions, and provide a consistent quality of service to the mobile TV consumer.

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Germany in 2006 generated a cumulative global television audience of 26 billion, the question this year was not will people be watching, but *how* will they watch. The World Cup provided the mobile industry with a perfect opportunity to demonstrate its potential as a platform for live streaming and on-demand services. The mobile platform was equipped to deal with the challenges associated with broadcasting a schedule of live events to a worldwide audience. People in different time zones were tuning in at odd times, driving sports fans to find other ways to watch besides sitting at home, which made mobile television a natural outlet to catch their favourite teams.

The experience in the US indicates that there is a growing market for mobile TV, and that consumers are finally switching on to TV on their handset. By ensuring that their networks can scale to meet the demand for mobile TV driven by live events, operators will be in a strong position to sustain the consumer appetite for TV and on-demand content. The World Cup in South Africa provided the opportunity for operators to capture new audiences and build a platform for premium TV services. Access to mobile TV meant that dedicated football fans, and even fair weather supporters had the chance to tune-in to watch matches irrespective of their location, or the time of day. A vuvuzela was an optional accessory.

The World Cup is an international event that takes place every four years, and it was possible for operators to plan for the expected impact upon their networks. However, the luxury of this level of predictability will not always be the case. The next big usage-driving event could be a live event or even be a piece of viral content that viewers are clamouring to watch over and over again. One thing is for sure, the data capacity issue will not disappear overnight and the operators will need to adopt longer-term strategies to cope with the increase in data traffic. ●