

EXECUTIVE SUMMARY

The Mobile DTV Opportunity and Its Role in the Communication Ecosystem

Danielle Levitas
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IDC OPINION

Since the first commercial analog TV broadcast station went on the air in 1939, TV has transformed media, culture, business, and Americans' lives profoundly. This medium has been a critical force in developing news and information services, alerting citizens to critical and emergency information, driving a deeper love of sport, and entertaining nearly all of us. It's part of the fabric of our culture and a critical technology keeping us informed and connected to what's going on around us.

Mobile DTV is a cultural and technical extension of digital over-the-air (OTA) broadcasting and is a spectrum-efficient technology to deliver hugely popular content. But more than this, Mobile DTV allows consumers to also receive local channels, programming, and advertising, as well as relevant local and national news, emergency information, weather, and other alerts. Like OTA broadcasting, Mobile DTV makes possible a one-to-many broadcast that instantaneously can reach millions of viewers.

BENEFITS

The broadcasting service is an integral part of our nation's wireless ecosystem. Free and local broadcast television delivers services — such as local news programming — that are critical to creating a sense of community and that no other video medium provides. Essentially all consumers, whether they receive their stations for free over-the-air or through a pay television service, depend on their broadcast stations for local programming. Broadcast stations produce an average of 4.1 hours of local news per day, and consumers consistently rank local television as their preferred source for news. By and large, cable, satellite, and telco carriers only retransmit this broadcaster programming and do not create their own local programming.

The U.S. broadcasting industry also efficiently provides essential emergency warnings to nearly 100% of the public, through direct news and weather broadcasts and through the Emergency Alert System (EAS). The broadcast industry is now prepared to enhance its role and increase the effectiveness of its emergency messaging capabilities by delivering emergency and public safety messages in its Mobile DTV broadcasts. This is a unique role and capability, given that other wireless

networks can become overloaded during emergencies, and one that is greatly enhanced by its integration into Mobile DTV broadcasts.

It is well documented that broadcasting is highly efficient in delivering popular content and emergency alerts to the public because broadcasting is a multicast technology (single broadcast stream to many users). The unicast (one-to-one) model's technological constraints make it difficult for wireless carriers to simultaneously deliver popular video content to hundreds of thousands or millions of viewers at a time. Clearly, certain types of content — local news and information, top TV shows, live programming — lend themselves particularly well to being delivered via broadcasting. Because broadcasting can help reduce congestion on other types of broadband networks, broadcasting is a complementary, and necessary, component of the nation's communications system. With 97 of the top 100 TV programs originating from broadcast networks in the 2008/2009 season according to The Nielsen Company, it is clear that broadcasters play the leading role in delivering hugely popular content to U.S. households.

The majority of Americans get their news primarily from their local TV broadcaster(s). According to a Gallup poll in December 2008, local TV news was by far the most popular source of news — with more than 1 out of 2 Americans reporting that they tuned into local news broadcasts daily — beating out every other media by at least 11 points or more. A March 2010 study by the Pew Research Center's Project for Excellence in Journalism found that on a typical day, 78% of Americans surveyed get their news from a local TV station, representing respondents' most popular choice.

According to a Magid/OMVC study from December 2009, the top six types of content that people have reported the highest interest in viewing live via their mobile device are those that are typically delivered via local broadcasters and broadcast networks. These programs are breaking news (with 76% of respondents), emergency reports (75%), weather (74%), local/regional news (59%), live events as they happen (56%), and traffic (54%).

Consumers buy many tens of millions of portable consumer electronics products each year, and many of these categories lend themselves very well to delivering a mobile broadcast TV experience. Portable consumer electronics are a diverse group of products and include portable computers, in-car infotainment/entertainment systems, media players, navigation devices, mobile phones, and emergent categories like Internet tablets and smartbooks. IDC forecasts shipments for all of these established product categories to grow from 156 million units in 2009 to 230 million units in 2013 — and this doesn't include new device categories that have yet to ship, which we expect to drive many millions more. This represents annual revenue of \$59 billion in 2009 on portable device expenditures.

Early on, IDC believes that ad-supported free OTA Mobile DTV offerings will play an important role in educating the market and evangelizing Mobile DTV services. From this base, premium services will continue to be added (via broadcasters' spectrum, and potentially Mobile DTV can be coupled with other subscription services) to drive further monetization. Examples of broadcaster options to monetize mobile video include subscription services to premium channels, subscription or a la carte access to other media, information services, catch-up TV services, localized and targeted

advertising, and even more possibilities when a Mobile DTV device is paired with a two-way communications technology that provides a return channel, such as on-demand services and commerce.

Mobile DTV is a complement to other communications technologies. For consumers, it complements both time-shifted content and their home TV sets. We see early inclusion of Mobile DTV receivers in devices ranging from netbooks and portable DVD/TV players to in-car entertainment and navigation devices as mobile phone integration emerges and evolves. And given the popularity of viewing video on portable entertainment devices, we believe they are critical to building the Mobile DTV hardware install base. Mobile DTV is a technology that allows OEMs to add value to existing and new device categories. It allows carriers to offer live popular and local programming without burdening their networks and complements their network-delivered services and capabilities.

CONSIDERATIONS

IDC urges broadcasters to move quickly in supporting Mobile DTV services and expects many to move fast as the start-up cost for a single channel is estimated at approximately \$100,000 for a station already transmitting at full power. The availability of more channels in more markets — for free and for fee — will drive more products into retail, and the cycle's momentum can build on itself.

Audience measurement needs to be effectively executed on, and because the Mobile DTV standard and broadcast equipment are designed to capture viewership and ad impressions, data can be captured on the device and relayed intermittently (i.e., via a WiFi connection or through another Internet-connected device like the PC) or in real time (when designed into a device with a two-way/3G radio).

Mobile phones are the single largest category of mobile devices and represent an enormous market with healthy annual device replacement rates. Competitive mobile video services are often viewed as premium, mobile operator on-deck video services, and such services can benefit from the inclusion of Mobile DTV as a complementary service that delivers local, live, and/or popular programming in a manner that is not feasible over traditional mobile broadband. IDC believes smaller carriers will move first, as they are more likely to view Mobile DTV as a differentiator versus larger carriers that are historically more cautious about integrating new technologies, as we saw with the slow but steady inclusion of WiFi into smartphones over the past five years.

Consumer use of video and technology continues to evolve, and while some consumers are taking advantage of time-shifting, the same consumers are increasingly interested in multi-screen experiences, which includes viewing popular and local content on the go across the many portable devices people increasingly own and use.

CONCLUSION

The era of mobile video services has arrived, and live mobile TV is a core component of a compelling video service offering for consumers. Mobile DTV broadcasts have begun for an estimated 45 stations today, and approximately 150 stations are expected to be on air by the end of 2010. Within three years, it is feasible that several hundred stations will broadcast Mobile DTV, reaching upwards of 100 or more markets.

In these early days, IDC expects broadcasters to deliver ad-supported free OTA access to drive OEM and retailer support and educate consumers about the feature. Longer term, IDC believes increased mobile video offerings across various portable device categories will drive new monetization for broadcasters, advertisers, and potentially OEMs and carriers.

It should not be a question of broadcast or broadband. Both are critical communications technologies that serve a distinct purpose and work better when they are coupled together. Mobile DTV is truly a complementary service to streamed and on-demand services because it can efficiently deliver services and live content that are hugely popular and/or highly localized to consumers, while two-way networks can be integrated onto the same device to offer more personalized experiences and content.

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