



IP Video to the Nth Screen

Advertising Goes Mobile

Whitepaper

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Advertising Goes Mobile

Trends in both the advertising industry and the wireless industry are driving the emergence of a vibrant, albeit nascent, mobile advertising market. Advertisers and media companies are seeking new advertising channels as consumers shift their media consumption behavior. Meanwhile, the mobile industry is driving towards premium content, including Video, Music and Games, to drive new revenue streams. Eric Berger, vice president of mobile entertainment for Sony Pictures Television, said it best when characterized the environment, "Data fees are still pretty high for mobile TV services, so everyone is looking at alternative models to bring fees down and spur consumer adoption. The industry is exploring ad support for both specific pieces of content and data platforms as a whole, and looking at whether and how to bring subscriber costs down with ads. The challenge is triangulating the demands of consumers, content owners, advertisers and carriers all together."

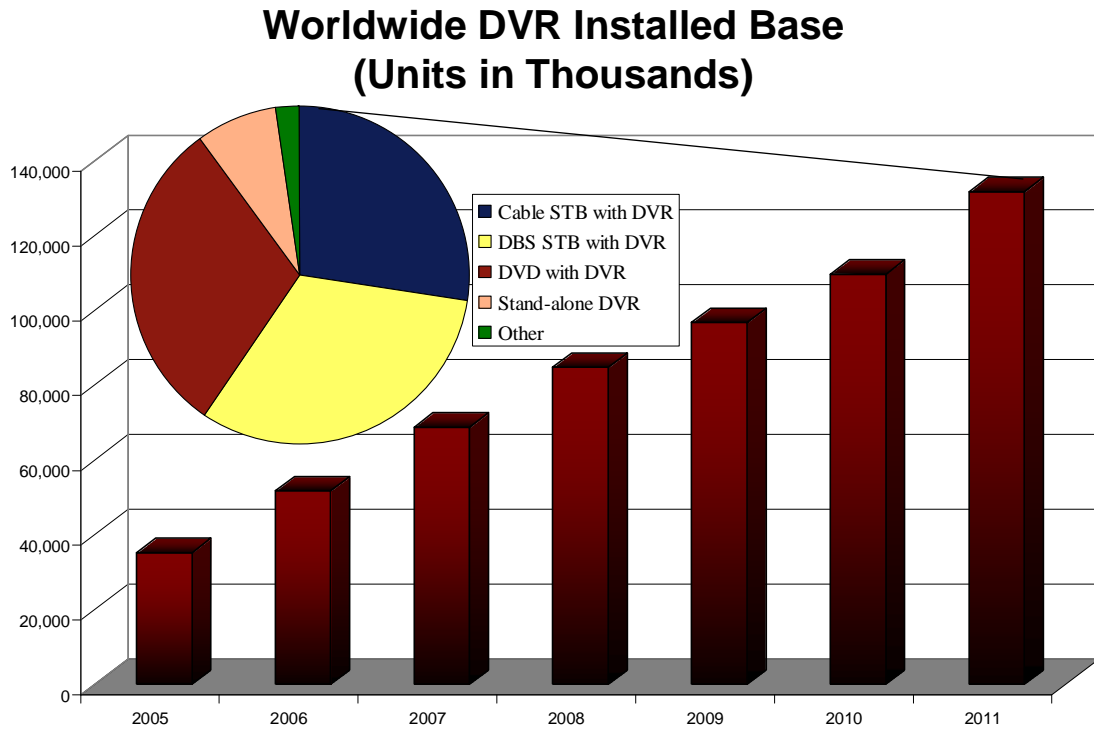
Advertising drives to mobile

A variety of trends are aligning to create the "perfect storm" in traditional media and advertising. An array of new channels, platforms and networks are enabling new ways to reach consumers. Meanwhile, many traditional advertising channels are becoming less effective. This is driving the search for new advertising models, with mobile being among the primary targets. The following are among the drivers and trends in the advertising industry:

- Digital video recorders (DVR) and time shifting content are undermining TV advertising models and advertiser confidence.
- Consumer media behavior is changing
 - More time on Internet
 - Internet-based user-generated content
 - Social networks
 - More time on video games
- Internet and DVR technology empowers consumers in their media consumption
- Consumer expectations for control and personalization are evolving and growing

Growth of DVR usage and Internet advertising are the key catalysts for the shift in advertising. The following chart shows the growing installed base of DVRs worldwide.

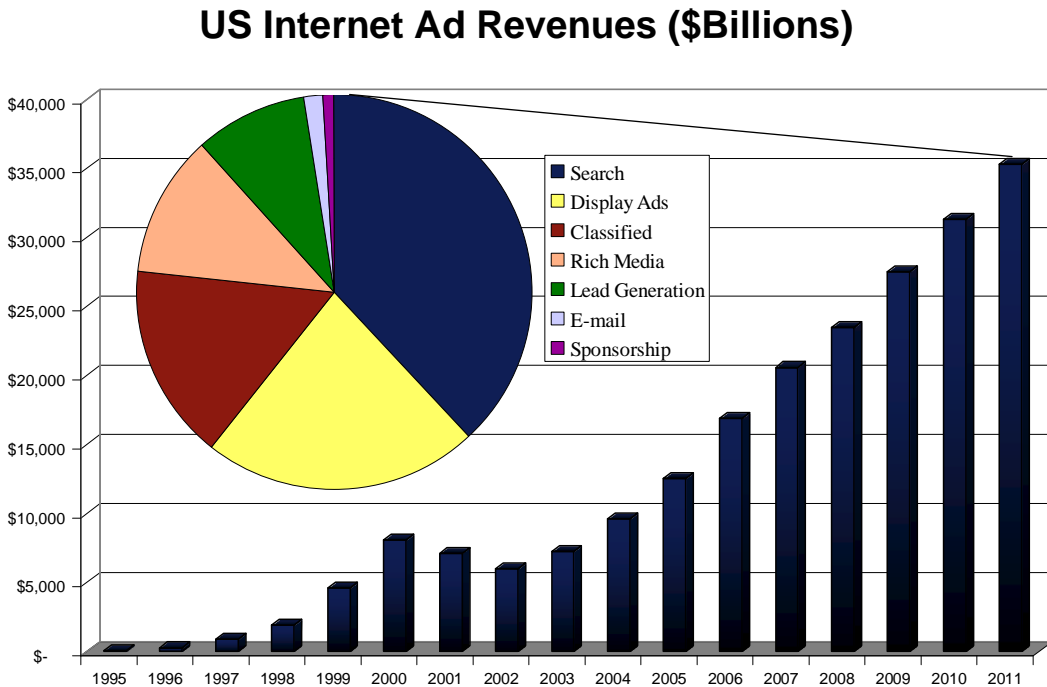
Figure 1: Worldwide DVR Installed Base



Source: MultiMedia Intelligence

The chart that follows shows Internet Advertising growth through 2011.

Figure 2. US Internet Advertising Revenue



Source: IAB, MultiMedia Intelligence

Advertisers are shifting their marketing and advertisement dollars to better engage and entice their customers. In addition, the media consumption trends are driving media companies to shorter release windows for media properties. In a multi-screen world, including TV, Internet and Mobile, advertisers need to reach consumers on all platforms and in all locations. With nearly 3 Billion mobile phones in consumers hands worldwide, the mobile market presents a lucrative target.

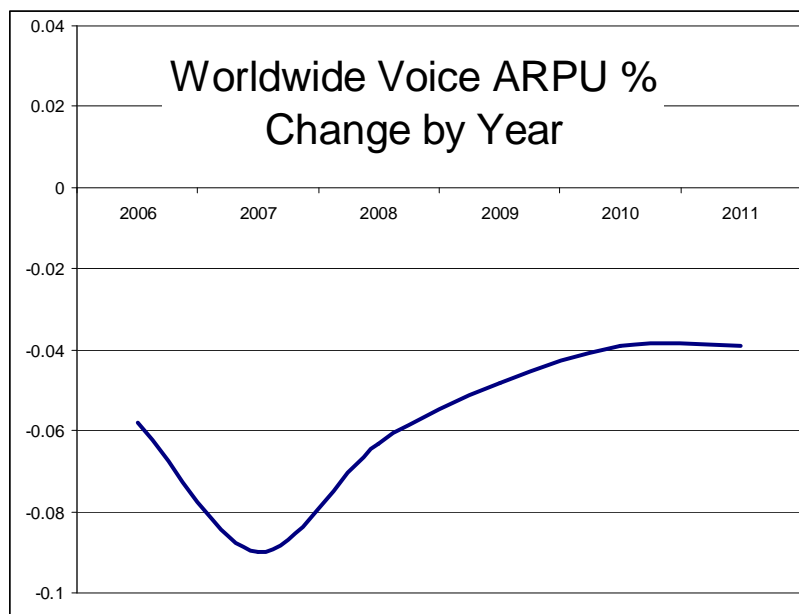
Mobile Drives to Advertising

The mobile industry itself is facing a shifting landscape. Traditional mobile voice services are seeing increasing commoditization, as many developed countries approach 100% subscriber penetration. The following are among the drivers and trends in the mobile industry:

- Overall, voice ARPU (average revenue per user) is falling.
- Mobile operators are driving toward an increasingly rich array of data services to sustain growth.
- Premium content and media are among the key new data revenue drivers.
- Mobile handsets are becoming increasingly powerful media devices, capable of providing a rich media (and advertising) experience.
- The Internet is emerging on mobile devices and mobile networks.
- Advertising is a prominent business models for both media and the Internet. As a result, mobile media and mobile internet = mobile advertising.

The following figure shows the challenge mobile operators face as voice services are commoditized and ARPU falls.

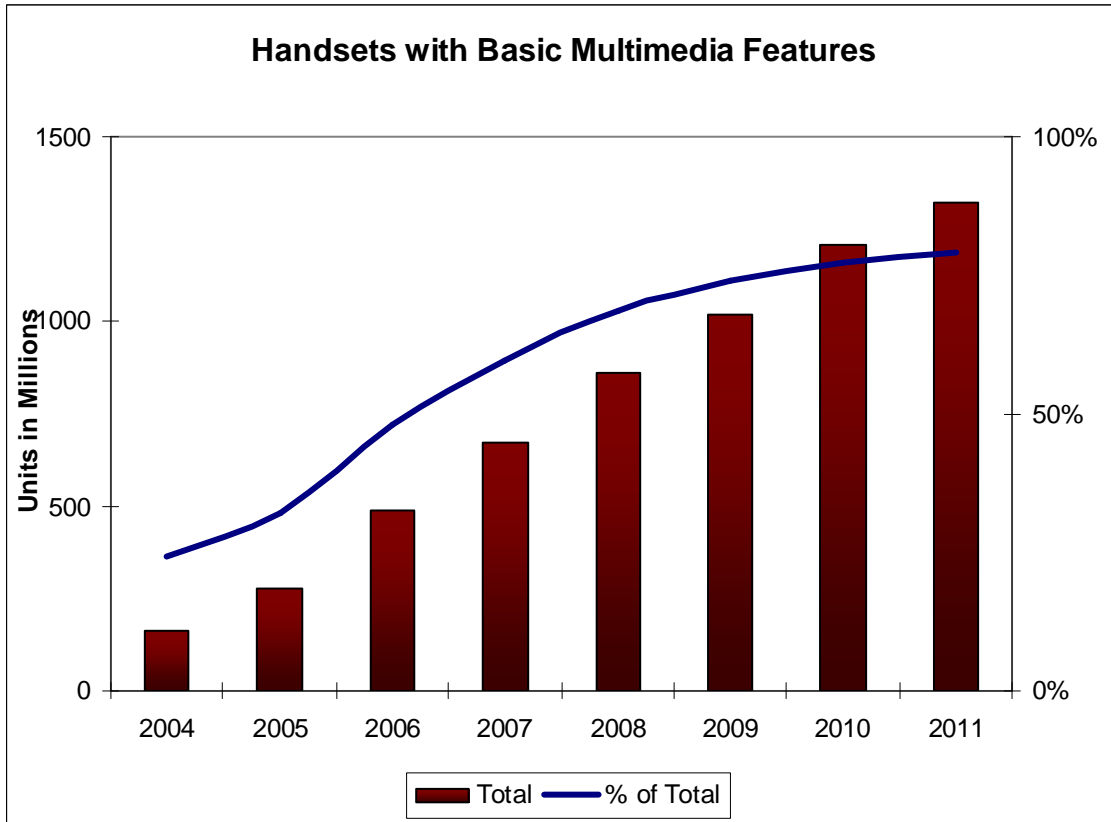
Figure 3. Worldwide Voice ARPU Declines



Source: MultiMedia Intelligence

The shift to mobile data revenues, including messaging and premium content, is critical to sustain overall mobile operator revenue growth. This in turn is vital in the continued drive towards increasingly feature rich multimedia handset devices. The following figure shows the growth in shipments of multimedia handsets.

Figure 4. Worldwide Multimedia Handset shipments



Source: MultiMedia Intelligence

Mobile Advertising = Personalization and Mobility

Mobile advertising is still at its nascent stage. As a result, segments are still evolving and shifting in a quest to capture revenue and capture the acceptance of consumers. The following are among the segments in mobile advertising:

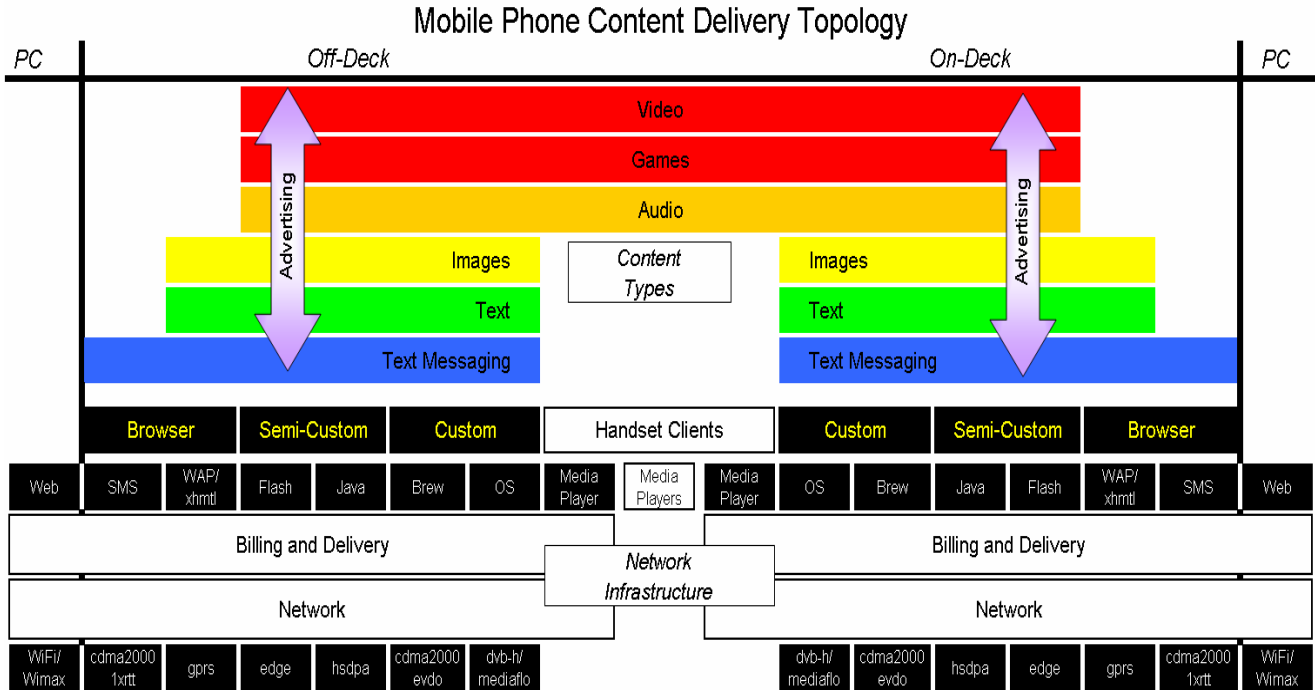
- Mobile messaging
- Mobile search
- Mobile TV & Video
- Mobile Internet

The mobile handset is a particularly attractive platform for delivering advertising since it is inherently interactive and personalized. Interactivity and personalization gives advertisers detailed and specific advertising metrics and unmatched targeting capability. These features not only provide value to advertisers, but value to consumers since advertising can be far more relevant. With personalized and behavioral opt-in advertising,

the conversion from advertising to purchase should be higher, enabling higher advertising rates.

While the revenue potential is enormous, the path to the ideal advertising platform is non-trivial. The figure below shows software platforms that operators and third-parties use to enable mobile content distribution and monetization.

Figure 5. Mobile Content Delivery Topology



Source: Nellymoser

In Figure 5, the process of delivering content requires that companies participating in this segment have an in-depth knowledge of the entire ecosystem. The detailed ecosystem and knowledge base of the consumer is among the key elements that makes mobile advertising so attractive. Companies are moving into this strategic segment now to capture market share and influence the direction of the market.

Fox News announced Q1 2007 that it is partnering with Third Screen Media to help it inject advertising throughout Fox's mobile properties. To start, Third Screen Media will insert banner advertising on Fox News' mobile Web site. MultiMedia Intelligence sees this as a beginning of a trend, and Fox News will likely add video advertising and other forms of advertising. Given the acquisition of Third Screen Media by AOL, it is not certain Fox News will use the Third Screen Media platform or an internally generated platform.

News Corp, the parent of Fox, is aggressively pursuing the mobile advertising revenue streams. In September 2007, NewsCorp debuted an ad-funded MySpace Mobile Web.

Mobile TV Advertising

The role of advertising in mobile video is promising. In the traditional TV industry, advertising funds about half of the over \$400 Billion worldwide video market for TV, films and related markets. Both Korea and Japan already have free-to-air mobile TV broadcasts that rely primarily on advertising for revenue streams.

MobiTV, the leading mobile video aggregator in the United States, is similarly embracing an advertising business model. In December 2005, MobiTV announced an extension of its mobile Video platform to support advertising. In early 2006, it announced a deal with Anheuser-Busch for a series of 30-second commercials broadcast across the MobiTV network.

In similar focus, SmartVideo, which offers a wireless broadband-based video service, has announced a free ad-supported service featuring music videos delivered to any Internet-enabled phone. Discovery Mobile also has announced plans to incorporate advertising into its mobile channels.

MultiMedia Intelligence expects the advertising model for mobile TV to be significant. However, the model will be unique from traditional TV, and will initially look more like Internet advertising. Among the key factors for mobile TV advertising:

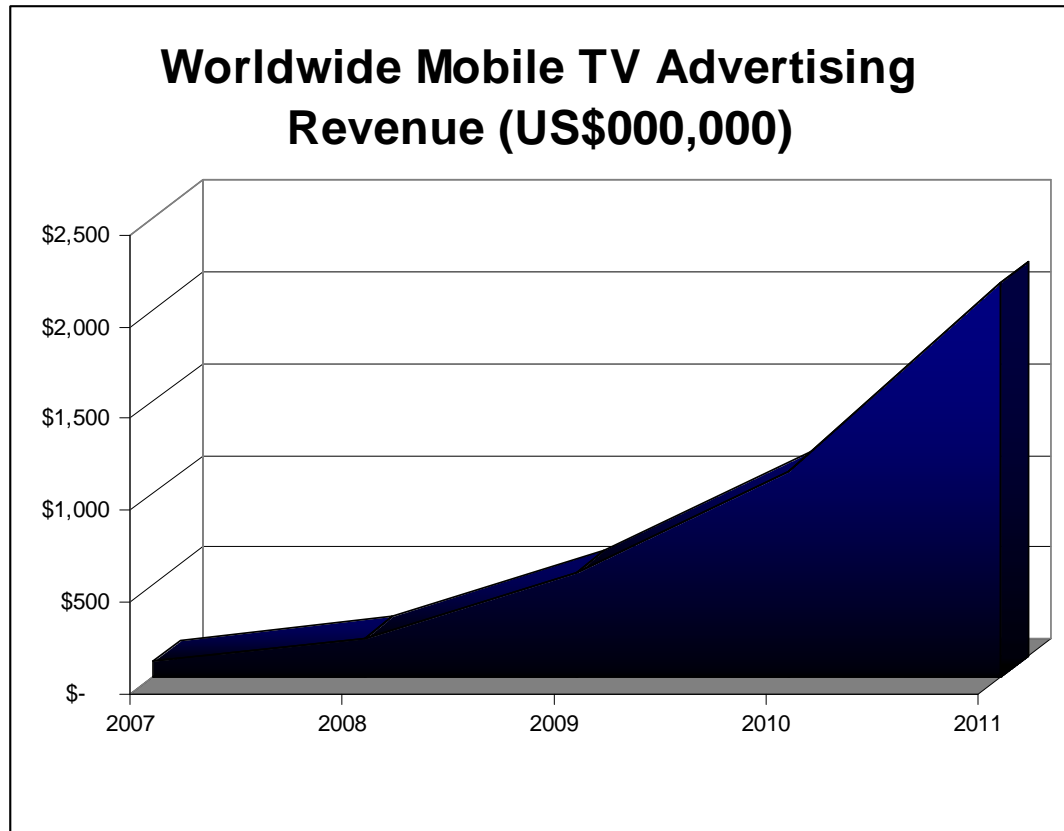
- Number of subscribers
- Cost per Thousand (CPM)
- Time spent viewing video per day
- Number of ad impressions
- Target demographic
- Interactivity and response rates
- Leverage location, personalization and behavior to narrowly target advertising

Clearly many of the factors noted above are primary drivers in broadband advertising as opposed to traditional TV advertising. The unique identification of a mobile device to a specific user allows more finely tuned advertising targeting. It also allows precise tracking of ad impressions. The backchannel allows consumer response (pay-per-click). Location can be leveraged for local or event-specific advertising. MultiMedia Intelligence also anticipates the following advertising models to come into play:

- Broadcast model – periodic advertising inserted between 1-5 minute video sequences. Typically aligns with linear programming.
- Sponsored/Branded Entertainment – Sole advertiser buys or produces exclusive programming.
- VoD pre-roll advertising--Advertising runs prior to a selected clip being viewed. Typically aligns with linear programming, but could also start as viewing is initiated or during channel changes.
- Development of short-form advertising to align with mobile viewing habits, including 5-, 10- and 15-second ad slots.

While the advertising model in many ways reflects broadband rather than traditional TV, it will also have several models that are distinctively broadcast-centric. Globally, many of the mobile TV broadcasters are traditional broadcast companies, which will influence their approach. In addition, their existing advertising metrics and customer relationships will influence their strategy. Broadcasters must be careful not to undermine existing advertising rates and household ratings, with the new mobile TV business models based on single viewer and narrow response characteristics.

Figure 6: Mobile Video Advertising Revenue by Geographic Region

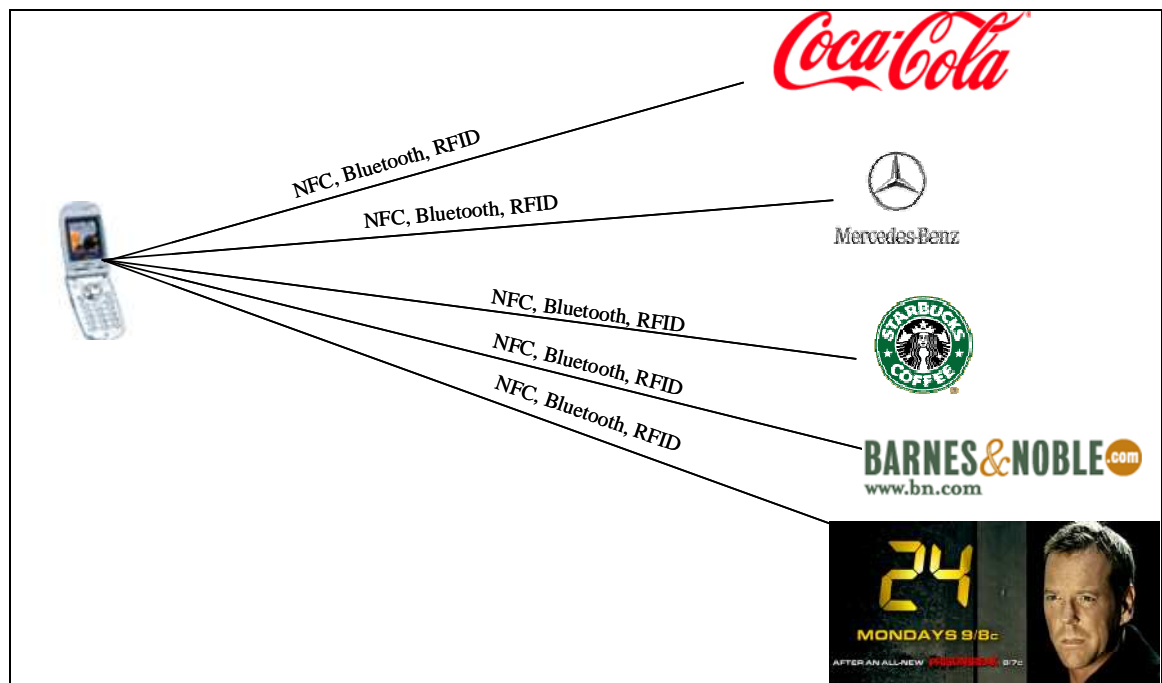


Source: MultiMedia Intelligence

NFC + Bluetooth + RFID = Location Based Advertisements.

A variety of local wireless technologies will enable increasing ability to target advertising on a location basis and on a venue-basis. Advertisements can reach consumers not only based on their behavioral characteristics, but also based on their time-specific and location-specific needs. When combined with an opt-in scenario, the advertising possibilities are differentiated from any form of historical advertising. Consider an opt-in scenario where a location based system recognizes the cell phone, smart phone, PDA, MP3 or notebook of a “member” user. A premium offer could be extended to the “member” on the spot and on an exclusive basis. The customer now gets things that aren’t offered to just everyone, they are getting exclusive treatment, which makes for a satisfied and loyal customer.

Figure 7: Example of opt-in, location-enhanced Advertising Scenarios



Source: MultiMedia Intelligence

NFC, Bluetooth, and RFID are all technologies that have applications that have yet to be fully developed and leveraged. This is another perfect example why technology companies and advertisers need to become closer allies. This will ensure desires, needs and actual real-world implementations will be better designed for future applications.

MultiMedia Handsets as the Underlying Backbone

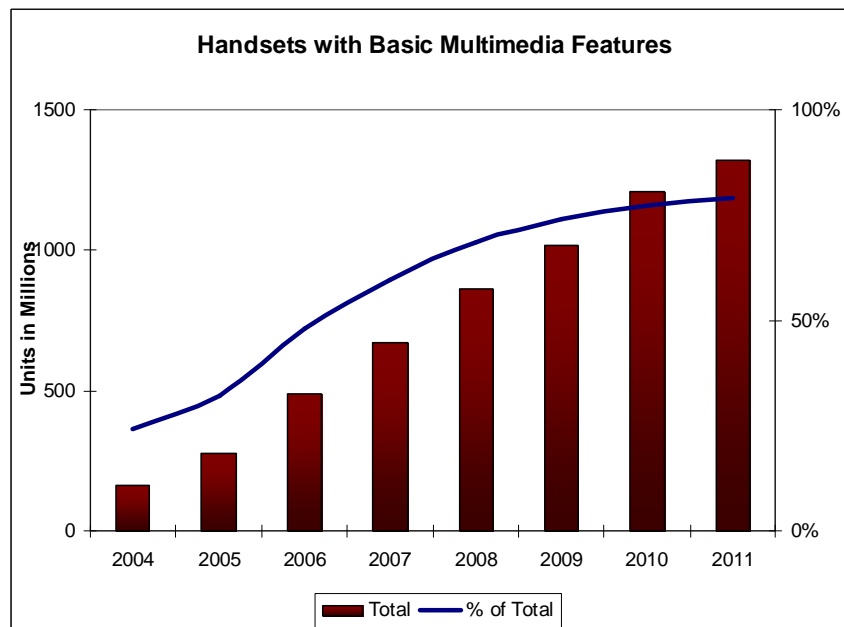
Mobile handsets have become the most ubiquitous electronic devices in the world. With billions of wireless subscribers, the mobile handset has a huge potential platform for advertisers. The handset is rapidly becoming a multimedia platform with the ability to support video, music, internet access, still and video cameras, and, as noted above, local connectivity.

MultiMedia Intelligence has specific criteria for “MultiMedia Handsets”. Our criteria include entertainment features that provide personalization and support entertainment. This includes three basic elements:

1. An image sensor—The phone has to be able to capture images to personalize the phone or share experiences.
2. Enhanced audio support— The ability to play MP3 audio for real music ringtones support and/or personal media player functionality.
3. Video playback

These “basic” multimedia handset requirements are commonly met, but still evolving. In 2004, only 24% of handsets met the definition of a multimedia handset. However, as semiconductor manufacturers rode Moore’s Law and the handset manufacturers differentiate, basic multimedia functionality has become table stakes. In 2007, 60% of handsets will have basic multimedia functionality. By 2011, almost 9 of 10 handsets will be multimedia-enabled.

Figure 8. Basic Multimedia Handsets Annual Worldwide Shipments



Source: MultiMedia Intelligence

The standard for multimedia handsets is continuing to evolve, making the platform more relevant for advertising. Improved graphics and audio enable a richer

branding and communication medium for advertisements. Video is a pre-requisite for mobile TV and associated advertising opportunity. Faster network bandwidth, location-based and connectivity technologies, and handset programmability are vital to developing the advertising models that will truly differentiate mobile advertising. MultiMedia Intelligence tracks a continuing evolution as handsets migrate to high-end multimedia handsets. For example:

- By 2010 over 56% of handsets will feature full MP3 music player capability.
- The percentage of handsets shipped with a screen resolution of QVGA resolution or higher will pass the 50% mark in 2008.
- Nearly 15% of multimedia handsets will have an advanced smartphone Operating System (OS) by 2011.

The advertising market and the mobile market are both at a cross-roads, with significant opportunities for both sides. The unique characteristics and high volume of mobile handsets make them a compelling platform to extend and enhance traditional advertising. The lucrative, yet challenged advertising revenue stream provides an attractive supplement to slowing mobile service revenue growth. However, to reach this potential, all of the constituents in the advertising and mobile industries must develop greater awareness of each other and formulate the appropriate business models and consumer value propositions.

MultiMedia Intelligence contributes their expertise of both media and technology to help companies capture these opportunities and others. We provide market research, consulting and other market development services help our customers.

This whitepaper is based on MultiMedia Intelligence's research on the collision of advertising and technology. It is also based on our recent research on Multimedia handsets.



About Multimedia Intelligence

MultiMedia Intelligence specializes on the markets and technologies for delivering IP-based video to the 'nth' screen. The company provides a comprehensive set of marketing & business development services to its customers. We look beyond the classic 'three screens', which include TVs, mobile handsets, and computers. We put markets into the broader context of the industry ecosystems that are converging and changing traditional business models. MultiMedia Intelligence provides a unique, comprehensive perspective.

MultiMedia Intelligence is founded by industry veterans.

Mark Kirstein — President

Mark has a proven track record in the market research field. Prior to forming MultiMedia Intelligence, Mr. Kirstein founded the multimedia research coverage for *iSuppli*, as VP of Multimedia Content & Services. Previously, Mark was Vice President and General Manager of *In-Stat* with full P&L responsibility. He led business strategy, sales, operations, business development and market analysis.

Frank Dickson — Chief Research Officer

Frank has over a decade of industry and market research experience. Frank is the former General Manager of MicroDesign Resources and Publisher of *Microprocessor Report* and Microprocessor Forum. Frank was also a former Vice President with In-Stat. Responsible for In-Stat's Convergence Group, he directed the firm's multimedia and convergence research.

Rick Sizemore — Chief Development & Strategy Officer

Rick contributes over 25 years of technology experience, strategic marketing/business development, product development as well as market research. Rick previously worked for leading technology suppliers including *Intel*, *Burr Brown*, *STMicroelectronics (STM)*, and *TCL*. Mr. Sizemore also founded consulting firm, TRIMM (Total Research in MultiMedia) in the early 1990s, contributing to the success of pioneering companies in the early digital video and audio space.

The following two research reports were published in late 2007, and are available for purchase.



Published: Sept. 2007
Author: Rick Sizemore

Advertising & Technology Collide: Semiconductor Companies, Technology Providers, Media Companies and Ad Agencies Partner to Move from Disruption to Monetization

The research examines the impact of new technologies on the advertising industry. It first examines why current advertising is becoming less effective and the critical role of the DVR. It then addresses the resulting impact on the "upfronts" and the impact on ratings providers, such as Nielsen. Digital technologies, platforms and the impact on advertising will subsequently be examined. This includes such platforms as set-top boxes, PCs, game consoles, DVRs and portable devices. It will finish by discussing new and creative ways that advertisers can utilize core technologies and examining some of the new digital advertising opportunities, including Internet advertising, IPTV advertising, Internet TV, mobile TV advertising, and in-game advertising.



Published: Nov. 2007
Author: Frank Dickson

Wanted: Multimedia Handsets

This research provides a detailed analysis of multimedia handsets. Starting by looking at the wireless industry trends that are driving the need for feature rich handsets, the research then identifies the definition and growth of basic multimedia handsets. It then analyzes feature rich multimedia handsets, including the technology driving them, unit forecasts and revenue outlook. Finally, it examines and forecasts specific handset features.

For More information on these reports, visit:

www.MultiMediaIntelligence.com

Advertising & Technology Collide:

Semiconductor Companies, Technology Providers, Media Companies and Ad Agencies Partner to Move from Disruption to Monetization

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- Audio

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- Screen Resolution

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- Motorola's RAZR

- Nokia 6233

- Sony Ericsson K790i

The Latest for Q4 2007

Multimedia Handset Themes for Holiday Season

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For Information on purchasing reports or consulting services from MultiMedia Intelligence, contact:

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