mma
mobile marketing
association

Mobile Applications

September 2008

1.0 Introduction

Mobile advertising is a rapidly growing sector providing brands, agencies and marketers the opportunity to connect with consumers beyond traditional and digital media and directly on their mobile phones. This document is an overview on mobile applications available to advertisers today, including the benefits and considerations to optimize campaign effectiveness and strengthen consumer satisfaction.

2.0 Mobile Applications Overview

Mobile applications are a rapidly developing segment of the global mobile market. They consist of software that runs on a mobile device and performs certain tasks for the user of the mobile phone.

Also known as downloadables, mobile applications are common on most phones, including inexpensive, entry-level models. Their wide use is due to the many functions they perform, including providing user interfaces for basic telephony and messaging services, as well as for advanced services such as games and videos. Other examples include tools for downloading and reading blogs, such as ContentNext's application for MocoNews and the Opera Mini™ browser.

Table 1 summarizes the main reasons why many businesses believe that mobile applications create unique advertising opportunities.

Table 1: Mobile Applications – Advertising Opportunities	
Company Type	**Motivations and Considerations**
Advertisers/Agencies	– The opportunity to advertise via mobile applications reaching consumers when they're on the go and away from other types of media. – The need to understand the numerous types of mobile applications available and the potential target audiences that can be reached via these mobile applications. – The need to identify the benefits of and drawbacks to advertising in mobile applications and how data connections affect the application's ability to support advertising. – The need to understand the advertising formats and features available from "ad-enabling" solution providers.
Mobile Network Operators and Off-Deck Content Aggregators	– The opportunity to monetize mobile applications via advertising. – The need to understand the mobile applications that they distribute and how each one might fit into their ad-enabled/ad-funded strategies. – The need to understand the product features available from ad-enabling solution providers.
Mobile Application Developers	– The opportunity to monetize mobile applications via advertising. – The need to understand the benefits of implementing some form of connectivity in mobile applications. – The need to understand the product features available from ad-enabling solution providers.

3.0 Mobile Applications Categories

Many mobile applications, such as SMS/MMS clients, browsers and music players, come pre-installed on mobile phones, whereas others may be provisioned and/or configured post-sales. For example, user can download applications over the wireless network and then install them themselves, or they can have them loaded and installed in the mobile operator's store. Regardless of how they're delivered to users, mobile applications are a large and continuously growing market and served by an increasing number of mobile application developers, publishers and providers.

From a technical point of view, we differentiate mobile applications by the runtime environment in which they are executed:

- Native platforms and operating systems, such as Symbian, Windows Mobile and Linux
- Mobile Web/browser runtimes, such as Webkit, Mozilla/ Firefox, Opera Mini and RIM
- Other managed platforms and virtual machines, such as Java/J2ME, BREW, Flash Lite and Silverlight

Table 2 summarizes the main types of mobile applications.

Table 2: Mobile Application Types
Communications:
– E-mail Clients – IM Clients – Mobile Web and Internet Browsers – News/Information Clients – On-Device Portals (Java Portals) – Social Network Clients
Games
– Puzzle/Strategy (e.g., Tetris, Sudoku, Mah-jong, Chess, Board Games) – Cards/Casino (e.g., Solitaire, Blackjack, Roulette, Poker) – Action/Adventure (e.g., Doom, Pirates of the Caribbean, Role-Playing Games) – Sports (e.g., Football, Soccer, Tennis, Basketball, Racing, Boxing, Skiing) – Leisure Sports (e.g., Bowling, Pool, Darts, Fishing, Air Hockey)
Multimedia:
– Graphics/Image Viewers – Presentation Viewers – Video Players – Audio Players – Streaming Players (Audio/Video)
Productivity:
– Calendars – Calculators – Diary – Notepad/Memo/Word Processors – Spreadsheets – Directory Services (e.g., yellow pages) – Banking/Finance

Table 2 Continued
Travel:

– City Guides
  – Currency Converters
  – Translators
  – GPS/Maps
  – Itineraries/Schedules
  – Weather

Utilities:

– Profile Manager
  – Idle Screen/Screen Savers
  – Address Book
  – Task Manager
  – Call Manager
  – File Manager

Mobile applications having evolved to the point that they now give users a rich and fast user experience. In this respect, mobile applications are distinctly different from browsing the Mobile Web which is still characterized by latencies due to page load times (albeit there are some emerging trends around JavaScript/AJAX and mobile widgets which will cross over between both worlds, i.e. providing fast response times once loaded).

This white paper is designed to inform about the advertising opportunities that mobile applications provide. It describes various options for integrating ads into the application logic, as well as several methods for serving ads to mobile applications. It attempts a first high-level overview of common ad units for mobile application, criteria for creating and executing successful campaigns and a look at how the MMA and its partner organizations will continue to foster this market.

4.0 Mobile Applications as an Advertising Opportunity

The delivery of advertising with and within mobile applications is still at an early stage. As a result, some best practices have been defined, while others have yet to be created.

Providing ads as part of mobile applications creates new revenue streams for application publishers, distributors and service providers. These revenues may be used to partially or completely subsidize the price of a mobile application or the service(s) that the mobile application provides.

Taking advantage of mobile application advertising opportunities requires a solid understanding of the respective usage patterns (i.e., why, when and how an audience uses a particular mobile application). Depending on the user segment and the application type and genre, frequency of use can vary from once a month to more than 50 times per day. Reach can vary from niche to mass market and user preferences can vary from time-killers to finding information as quickly as possible.

Mobile applications typically use the mobile phone's capabilities, such as its camera, GPS and 3D graphics. These capabilities provide additional opportunities for ad campaigns. For example, if the campaign's creator knows that a significant percentage of the target market owns handsets with GPS, the ads could use location information as part of the call to action.

Following are some examples mobile application ad opportunities.

4.1 Example 1: Mobile Game Advertising – Movistar/Betfair
This campaign was launched during the Mobile World Congress 2008 in Spain. It featured a game that users downloaded from an off-portal Mobile Web site or via a Bluetooth kiosk in the Mobile World Congress area. The game regularly cost €3 but was free at the Mobile World Congress.

Unkasoft was the game and solution provider. The goal was to promote Movistar and its advertiser, Betfair. The campaign met all expectations in terms of the number of downloads and ads served.

Ad inventory was created at three different places in the game flow:

1. Pre- and post-roll full-screen graphics
A full-screen advertisement was placed at the launch and exit of the game. From this ad, players could press 5 to find out more about Movistar.

2. Full-page ad image between game phases
Between phases of the game, a banner and text campaign is shown.

3. In-game advertising (integration into game content)
Betfair ads were placed directly into the game and were fully integrated into the game content (e.g. displayed on truck and on the ball).

The game displays ads that are pre-defined and integrated at time of download. The lifetime of the campaign was limited to duration of the Mobile World Congress.

4.2 Example 2: Mobile Game Advertising – The Economist
In order to reach its client's target audience (age 25+ demographic) in Hong Kong, Ogilvy Interactive designed a "rich-media" mobile advertising campaign that was inserted into and around a mobile application by Actionality, a Yahoo! company. The ad's goal was to enhance and complement the mobile application and was widely regarded in Southeast Asia as a ground-breaking, well-targeted and innovative "around-game" mobile advertising campaign.

1. Pre-roll animated mobile advertisement (animation not shown)
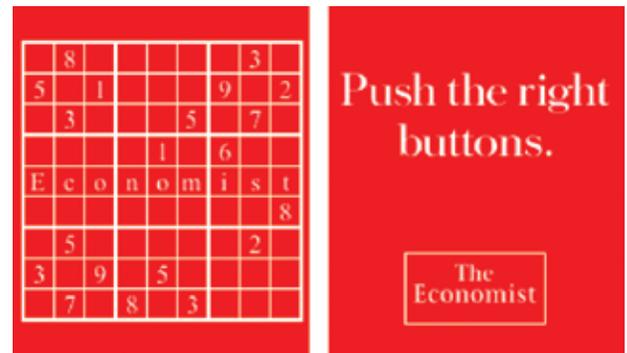
2. Branded version of a popular mobile version of Sudoku
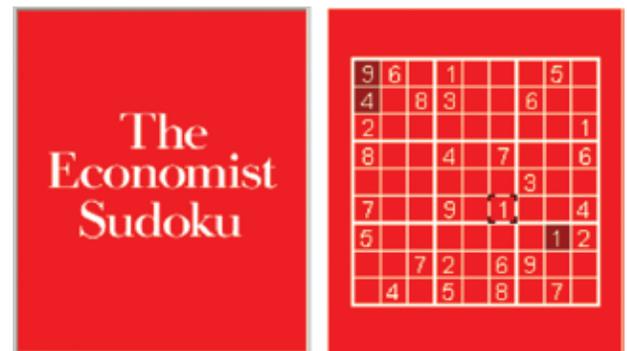
3. Post-roll animated mobile advertisement with click-to-call and click-to-browse (animation not shown)

4.3 Example 3: Student SMS Composer
Vodafone Czech Republic offers free SMS service – up to 300 messages per day – to student customers. It is provided through an ad-featured SMS composer, which is a Java/J2ME application installed on the mobile phone. With three ads displayed for each message sent, this provides a significant advertising opportunity.

Ad mobile inventory is being created at three different places in the application flow:

1. Banner above the main menu

2. Full-screen ad No. 1

After composing an SMS message and pressing the send button, a full-screen ad is displayed. This figure shows the main ad message.

3. Full-screen ad No. 2

After the user receives confirmation that the SMS message was sent, the second full-screen ad is displayed. This figure shows how the application offers a hot key to open a menu, where users can launch their phone's browser and be taken directly to the brand's Mobile Web site.

Continuing further in the application brings users back to step 1, where a new ad gets displayed.

The SMS composer application displays pre-cached ads to ensure that the user experience is smooth and that ads are served in offline mode, which is when the mobile phone has ended its data connection.

4.4 The Ad Opportunity
Mobile Gaming

Mobile games are ideal when consumers have time to kill or want to compete with other players when they're out and about. When they play mobile games, consumers have their attention focused on the game and are interacting with it, improving the chances that they'll notice an ad inserted in the game. However, it's important to respect the gaming experience by ensuring that ads are placed in a non-intrusive, non-disruptive way. That best practice balances the need for a good user experience and highly effective campaigns.

Today, mobile games are primarily used for branding-type campaigns. Although interactivity currently is very limited, that will grow as games, mobile phones and networks mature.

Messaging Client

Mobile messaging clients engage audiences when they send or receive messages. Usage of messaging clients is characterized by a high frequency of short interactions. Respecting this communication environment and placing ads in a non-intrusive, non-disruptive fashion can lead to highly effective campaigns.

Today, mobile messaging clients are mainly used for branding and interactive campaigns. The call-to-action usually happens at the end of the communication activity.

5.0 Mobile Application Advertising Units

As Section 3 discussed, there are many ways to display ads in mobile applications. Some methods are in commercial use, while others are still in the experimental stage. Following is an overview of some ad unit types:

- **Banner Ad:** A banner ad is a static or animated image, text or combination of these that can be placed in defined areas within the application (e.g., on the application main menu page or sub-pages). Users should be able to navigate and click on the banner ad to access more information from the advertiser, a design that's known as a dynamic banner ad.

- **Full-page Ad:** A full-page ad is a full-screen advertising experience, comprised of one or more images, text, audio and/or video. It may be animated or static. The ad may be placed as a "bumper" screen for the launch (pre-roll) and/or exit (post- roll) of an application, or as a splash or jump page (formerly called interstitials) within the application. It may be used as the landing page from an earlier ad banner or may be a stand-alone full page. The user should be able to navigate and click the full-page ad to access more information from the advertiser, a design known as a dynamic full-page ad.

- **Tagged Ad:** A tagged ad is formatted to be compatible with the main content type used in the application context. It can be resized, reshaped and freely positioned as part of the core application content.

  - Example No. 1: Applied in games where the game publisher chooses to integrate tagged ad inventory into its core content. Examples include flags on a race track or soccer field billboards.
  - Example No. 2: Applied in media player applications – such as a video player – where the player amends a video ad pre- and/or post-roll to tagged video content.

It is important to understand that not all ad units described may be applicable to all mobile applications. The MMA plans to create guidelines for determining which ad unit applies to each mobile application type. It's also important to note that the ad unit descriptions provided in this document are bases for discussion rather than finite definitions. Instead, ad unit definitions will evolve as best practices develop.

6.0 Mobile Application Ad-Serving Considerations

6.1 Mobile Application Connectivity

Unlike browsing the Mobile Web, mobile applications are not necessarily always on-line – that is, not constantly provided with a mobile data connection. For example, some mobile games (e.g., Tetris) run completely disconnected, while others connect occasionally (e.g., to load new levels or upload high scores) and still others are constantly connected (e.g., in multi-player mode). Following is an overview of all three types.

Connected Mobile Applications: Software that requires network connectivity in order to perform the majority of its tasks. Without network connectivity, the utility of a connected mobile application is greatly diminished. Although data caching provides limited utility to users, this is not the mode in which the application was intended to be used.

Examples include Mobile Web browsers, chat clients, social networking clients, streaming multimedia applications, multi-player games and mapping applications.

Intermittently Connected Mobile Applications: Software that requires occasional network connectivity in order to perform some of its tasks. Without network connectivity, the application's utility is somewhat diminished. Data caching provides substantial utility to users, but connectivity is occasionally required in order to keep the data fresh.

Examples include e-mail clients, banking/finance tracking applications, news readers and currency converters.

Non-Connected Mobile Applications: Software that does not requires network connectivity in order to perform the majority of its tasks. Without network connectivity, its utility is not diminished. Non-connected applications may have a few features that require connectivity, such as uploading a game's new high score, but these features are limited in scope.

Examples include the majority of today's mobile applications, such as most mobile games, video/audio players that play downloaded content instead of streaming it on-line, productivity applications such as word processors and spreadsheets and utility applications such as file managers and address books.

6.2 Ad Serving and Ad Connectivity

Serving ads in a mobile environment where constant connectivity is not guaranteed requires solutions that address this challenge. We suggest looking at ad serving in mobile applications as a three-stage approach:

1. **Ad supply:** Provide ad unit material to the application for display throughout execution.

2. **Ad display:** Display the ad unit material at the appropriate occasion in the application flow.

3. **Ad reporting:** Report ad unit exposure, measured on the mobile phone, back to the ad server in a reliable way, so that reported figures can become a trusted basis for billing & accounting between parties.

Depending on capabilities deployed, the following ad serving scenarios could be implemented:

- **Non ad refresh:** The ad is supplied to the application at the time of download, with no subsequent ad refresh. Little to no ad exposure reporting is possible. Only the number of downloads is reported.
- **Connect time ad refresh:** Ads are supplied and ad exposures are reported when the application connects.
- **Independent ad refresh:** Ads are supplied and ad exposures are reported during connections according to advertising needs and are independent from application connects (e.g., once per day).
- **Ad Engine:** This new concept foresees a central software function residing on the mobile phone that performs ad supply and ad reporting for multiple mobile applications on the same mobile phone. This "ad engine" receives and caches the available ad units and provides them locally to mobile applications in real-time upon request, usually for immediate display by the application. The advantages of the ad engine are (1) avoidance of repeated implementation of refresh functions, (2) consistent ad serving interfaces across applications and platforms and (3) serving ads to mobile applications regardless of their core connectivity design.

6.3 Targeting and Rendering

Delivering targeting information to the ad server to enable better ad selection based on relevant information is an evolving concern in mobile application advertising.

Different types of information may be sent to the ad server for targeting purposes:

- Device information (e.g., screen size for ad rendering, user agent to retrieve device capabilities or characteristics in a handset database)
- Carrier or country information
- Geographic location
- User data (e.g., user nickname, user demo, preferences) or application-unique ID if user data is unavailable
- Contextual info

For connected applications, targeting information can be delivered to the ad server at the time of the ad request. The principle is the same as that for browse scenarios, except that targeting information can come:

- from the application itself (context, screen size), or
- from the server connected to the application (user information captured at the time of the application download).

Mobile applications usually do not have access to the device user agent. Because mobile ad servers often rely on this user agent for rendering or device targeting, several options are possible:

- Use a screen size instead of the user agent (sent by the application or server to the ad server). This allows rendering, but not device-capability-based targeting.
- For applications downloaded on the Mobile Web, capture the user agent at the time of the application download and store it together with a unique application ID in a database on the application server. Retrieve the user agent each time an ad call is sent from a identified application. The same principle can be applied to any targeting info that could be accessed at the time of the application download (context of download, user id, user info).

However, all targeting capabilities must comply with existing country-specific regulatory and legal frameworks covering privacy and the use of personal data. User concerns and expectations also need to be carefully managed. Long term success depends largely on ensuring that users fully understand any proposal to use their personal data for targeting, as well as providing a clear choice to opt in or out of this type of usage.

7.0 Mobile Application Advertising Response Capabilities

Ad units can be static (non-active, non-clickable) or dynamic (active, clickable), with the latter providing a whole host of opportunities for advertisers to engage their audiences.

As with most other mobile ad channels, the following response capabilities – depending on type of application – are to be available to dynamic ad units:

- Click-to-call (users place an outgoing call to the content provider or advertiser)

- Click-to-locate (users find, for example, the closest car dealer or movie theatre, enabled by location-based services)

- Click-to-order brochure (users receive marketing materials by supplying their postal addresses)

- Click-to-enter competition (users enter text or sweepstake to win prizes)

- Click-to-receive email (users receive an email and a link to online site by supplying their email address)

- Click-to-receive mobile coupon (users receive an electronic coupon on their mobile phone that can be redeemed immediately at a participating merchant)

- Click-to-buy (users make a purchase paid for with a credit card, added to their monthly mobile bill or using some other form of mobile payment)

- Click-to-download content (users download content, including logos, wallpapers or ringtones, onto their mobile phones)

- Click-to-enter/browse branded Mobile Web site (users click a banner to get connected to standing or campaign-specific Mobile Web site)

- Click-to-forward content (users forward relevant content to friends, creating a viral campaign effect)

- Click-to-video (users click a banner to view an advertiser's commercial for a product or service)

- Click-to-vote (users reply to a ballot or poll from their mobile phone and provide marketers and brands with valuable research insights)

The response capabilities available for an ad unit depend heavily on the application, the runtime environment it is executed in and its way of making mobile phone features available within and outside the application context :[1]

- Some mobile phone platforms require vendor-specific application integration to respective vendor-specific platforms, in which case the availability of response capabilities is subject to case-by-case verification.

- Advanced and more open mobile phone platforms and runtime environments are increasingly common and available across a variety of mobile phones from different vendors. This leads to a more predictable availability of consistent response mechanisms available to advertisers and users (e.g., click-to-call, click through to Mobile Web).[2]

- There is a trend toward Mobile Web runtime environments on mobile phones. This will enable mobile applications to enter mobile phones "on the fly" as mobile widgets that users can easily install, use and uninstall. Providing broad and secure access to mobile phone functions is at the heart of current industry efforts, with a view to provide (among other things) the full range of ad response capabilities consistently across platforms.

Providing response mechanisms on today's mobile phones includes challenges that still must be addressed:

- Leaving the context with no return option: Click-to-Mobile Web, click-to-download, click-to-video are examples of response mechanisms that require invocation of other mobile phone functions and applications, (e.g., browser, download client, video streaming client). Many mobile phones would exit the application context in which the ad was clicked (e.g., exit the game) to open the new context for providing the response channel. Keep in mind that this design can annoy users. Warnings, delaying responses and avoiding responses are among the considerations for future guidelines in this area. Placing call to action into the post-roll message is preferable in this respect. In addition, costs may be incurred as a result of the action, and it is best practice in such cases to alert users in cases where additional charges apply.

- Leaving the context with return option: Some recent application runtime environments allow applications to remain open when entering the ad response channel. While this increases response options, it still requires attention to the user experience. Future guidelines will address notification for returning to the original application and possible automatic return to the original application.

- Embedded response mechanisms: Mobile applications may provide a set of response features as part of their core functionality. This paves the way for simpler and more immediate ways to capture responses. It would require a mimic of configurable basic request/response patterns (e.g., tick boxes, drop-down lists, data entry fields) to be defined that – customized for individual ad

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[1] The application context starts upon invoking the application, stays open while the application is being used and usually ends when exiting the application. Some runtime environments allow users to switch between different application contexts opened at the same time, similar to PC-type environments.

[2] Java/J2ME with Mobile Information Device Profile 2.0 (MIDP 2.0) and BREW1 2.x and above are examples of widespread application execution environments.

campaigns – cover the needs of the majority of interactive ad campaigns.

- Ad engine response mechanisms: Further developing the concept of embedded response mechanisms, the central ad engine (see Section 5) could take the role of providing basic request/response templates to mobile applications. This is for further study.

8.0 How to Buy Advertising in Mobile Applications

Successful mobile advertising campaigns that use mobile applications require insights into how the target audience uses those applications. The catch is that access to that information is currently limited to individual games publishers, games distributors and/or the application service providers. All parties involved will need to cooperate in order to provide transparency for planners and buyers and to promote the ad opportunity in mobile applications.

Buying advertising in mobile applications is similar to buying advertising on PC applications (e.g., MSN or Yahoo Messenger). For non-refresh ad serving, where the ad is delivered at time of download, ads can be purchased on a cost-per-download basis. For refresh ad serving, as well as for future ad engine ad serving scenarios, ad impressions can be purchased by CPM, as long as robust and trusted reporting capabilities are in place.

Dynamic ads in mobile applications can also be purchased on a cost-per-click (CPC) or cost-per-unique-download (CPD) basis; the latter is ad sales based on the number of unique users reached by the advertisement.

Following is some initial guidance for buying ads in mobile applications:

- Connected mobile applications often use independent refresh ad serving capabilities. This environment provides the most flexibility when it comes to targeting, rotation and reporting of ads.

- Connected and intermittently connected mobile applications that have connect time ad refresh capabilities provide advertisers with a new opportunity to reach mobile users. However, ad refresh and upload of reports are deferred to connect times, which can mean days, weeks or even months of delay.

- Non-connected mobile applications with advertisements are likely to run in non ad refresh mode, which may be viable for advertisers that want to conduct simple brand campaigns, but the lack of reportable ad performance statistics in this case points to the need for CPD buying.

9.0 Success Drivers

When it comes to advertising through mobile applications, it is crucial to support an environment of increased application purchase, usage and advertising acceptance. Following are some tips for success:

- Ad displays should be integrated in ways that don't compromise the nature, intent, performance and user experience of the original mobile application.

- Displaying ads and inviting users to engage with brands and advertised content should provide a compelling user experience in itself, taking the application usage context into account, such as by being brief and efficient, or exciting and playful or practical and need-specific.

- When calls to action trigger departure from the application context (with or without return option), we recommend paying close attention the user experience. This area will require additional guidelines.

- During design and execution, mobile applications featuring ads and response mechanisms should recognize their impact on the mobile phone's processing power and memory consumption in order to avoid crashes.

- The industry needs to agree on guidelines based on proven successful case studies to inform mobile application designs. Such guidelines should also specify recommendations around creative material (e.g., aspect ratios, dimensions, formats) similar to the MMA's guidelines around Mobile Web and mobile messaging. Recommended duration of ad exposure for the different ad units is also subject for future guidelines.

- Mobile application developers play an important role in simplifying advertisers' workload when creating and executing campaigns. The mobile application itself shields lot of the differences and complexities of underlying mobile phone implementations, platforms and runtime environments.

- There is a role for mobile operators to consider charging implications when it comes to supplying ads over the air to mobile applications.

10.0 Outlook and Next Steps

Besides expanding the recommendations in this white paper, the industry also should:

- Collect best practices for ad featured applications from all application categories.

- Extract commonalities from best practice to inform work on guidelines.

- Clearly define and publish guidelines for ad featured mobile applications in those areas where consistent best practices exist. Where appropriate, try to define ad units that are compatible with other mobile ad channels with a view to allow reusing creative material.

11.0 Who We Are

About the Mobile Marketing Association (MMA)

The Mobile Marketing Association (MMA) is the premier global non-profit trade association established to lead the growth of mobile marketing and its associated technologies. The MMA is an action-oriented organization designed to clear obstacles to market development, establish mobile media guidelines and best practices for sustainable growth, and evangelize the use of the mobile channel. The more than 650 member companies, representing over forty countries around the globe, include all members of the mobile media ecosystem. The Mobile Marketing Association's global headquarters are located in the United States and in 2007 it formed the North America (NA), Europe, Middle East & Africa (EMEA), Latin America (LATAM) and Asia Pacific (APAC) branches.

For more information, please visit www.mmaglobal.com

This document was collaboratively developed by ScreenTonic, Unkasoft Advergaming, Vodafone Group Service Ltd and Yahoo!.

12.0 References

The following links provide additional sources of information and reference:

- MMA Consumer Best Practices Guidelines
  (http://www.mmaglobal.com/bestpractices.pdf)

- MMA Code of Conduct
  (http://www.mmaglobal.com/codeofconduct.pdf)

- MMA Global Mobile Advertising Guidelines
  (http://www.mmaglobal.com/mobileadvertising.pdf)

- MMA Introduction to Mobile Coupons
  (http://www.mmaglobal.com/mobilecoupons.pdf)

- MMA Introduction to Mobile Search
  (http://www.mmaglobal.com/uploads/MMAMobileSearchIntro.pdf)

- MMA Mobile Advertising Overview
  (http://www.mmaglobal.com/mobileadoverview.pdf)

- MMA Mobile Marketing Sweepstakes & Promotions Guide
  (http://www.mmaglobal.com/mobilepromotions.pdf)

- MMA Mobile Search Use Cases
  (http://www.mmaglobal.com/mobilesearchusecases.pdf)

- MMA Off Portal – An Introduction to the Market Opportunity
  (http://www.mmaglobal.com/offportal.pdf)

- MMA Short Code Primer
  (http://www.mmaglobal.com/shortcodeprimer.pdf)

- MMA Understanding Mobile Marketing: Technology & Reach
  (http://www.mmaglobal.com/uploads/MMAMobileMarketing102.pdf)

- Mobile Marketing Association Website
  (http://www.mmaglobal.com)

13.0 Contact Us

For more information, please contact:

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14.0 Glossary of Terms

The MMA maintains a nomenclature glossary of all terms for the mobile marketing industry. The glossary is available at:
http://www.mmaglobal.com/glossary.pdf

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The Mobile Marketing Association (MMA) is the premier global association that strives to stimulate the growth of mobile marketing and its associated technologies. The MMA is a global organization with over 650 members representing over forty countries. MMA members include agencies, brands, content porviders, hand held device manufacturers, operators, technology enablers, market research firms, as well as any company focused on the potential of marketing via mobile devices.