

# MOBILE & SOCIAL APPLICATION GUIDELINES

## Executive Summary

This document contains recommendations for an interoperability standard aimed at creating cohesive social media content and engagement models for the OOH industry. Along with social engagement, there is an inevitable union between OOH and mobile. In order to seize the opportunity in social and mobile ad spend, the OOH industry believes it is essential to have industry standardization for each method of execution. These standards will allow media agencies to efficiently and effectively plan campaigns across multiple providers and platforms.

Social media provides engaging real-time experiences, and via social OOH, advertisers can connect these social media channels to OOH networks enabling brands to reach wider audiences.

While there are many methods of engaging with consumers through social and mobile OOH, these campaigns can be categorized into four variants that cover one-way, two-way, real-time and non-real-time programs.

## Overview

The OOH advertising medium is comprised of a diverse range of formats that employ an expanding array of technologies and platforms. There are many disparate networks, screen formats, signage systems, content management systems, and security or content policies. This diversity provides opportunities for advertisers and media buyers to include OOH in multi-channel programs.

With the rapid growth of social media and smartphone devices, advertisers should expect a level of standardization. Embracing standard definitions in social and mobile OOH enhances the compatibility of the OOH industry to align with more multi-channel programs.

In order to address advertisers' needs and meet the growing demand for social and mobile interactive programs, these guidelines seek to enable the OOH market to better and more effectively integrate into multi-channel programs. Ultimately, mobile and social engagement opportunities should enable advertisers to connect with consumers in a more meaningful way and create a dialogue and relationship with those consumers.

To achieve these missions, the strategies are to:

- Establish standard definitions for social and mobile OOH
- Agree on the minimum set of capabilities required to transact a social program
- Aggressively market social OOH as a critical part of multi-channel programs
- Develop the necessary management tools necessary to allow media owners to manage mobile campaigns and touchpoints
- Distinguish how data is accessed, stored, and handled between application programming interfaces (APIs)

## Consumer Engagement

The level of consumer engagement for a given advertising campaign will depend on the OOH formats and technologies used. Social and mobile OOH campaigns will only be successful if the format allows enough dwell time for the needed interaction. The following chart shows how various formats can promote different technologies. High means a good likelihood of monetizing, and low means a less likely chance of being able to add value.

TECHNOLOGY	OOH MEDIA				
	Pedestrian Level – Enclosed (e.g., Malls, Airports, Some Transit)	Pedestrian Level – Outside (e.g., Street Furniture, Some Transit)	Non-Pedestrian Level (e.g., Malls, Airports, Some Transit)	Pedestrian Place Based (e.g., Gas Stations, Health Clubs, Bars)	Roadside
NFC	High	High	n/a	Medium	n/a
QR code	High	High	Low	Medium	n/a
SMS	High	High	Medium	Medium	Medium
Bluetooth / Wi-Fi	High	Low	Medium	Medium (Enclosed Locations)	n/a
Augmented Reality	Low	Low	Low	Low	Low
Geofencing	Medium	Medium	Medium	Medium	High

FIG.1. Engagement Probability Chart

## Technology Agnostic

Media company’s technology platform must support both current technology such as NFC, QR, and SMS, as well as future technologies. In addition, a mobile technology platform must be flexible, scalable, and have the capability to integrate via API to software, systems and, manage large sets of data. Further, a technology platform must have disaster recovery, security, and privacy policies in place.

## Campaign Structure

The extent of social or mobile engagement possible for advertising campaigns will depend on whether the formats have the option of a feedback loop (two-way programs) and if they require real-time or near-time display.

A one-way program sends information directly to the consumer’s device or instructs them on where to find or send content online. One-way programs can show social media on OOH displays or screens but do not have feedback sent to the user. An example would be a program posting Twitter messages to a screen without a confirmation message being sent to the user.

A two-way program both receives content from the user and can communicate back to the consumer. The message can be a simple confirmation or can provide additional pathways for interaction. An example would be a display that takes a photograph of a user and emails the picture back to the consumer or posts it to a social media channel of the user’s choice.

In both the two-way and one-way path, real time experiences may take place. Pragmatically, “real-time” means updating an OOH screen or sending a response back to a user within 15 seconds to 15 minutes. Networks and technologies that can only update periodically for economic or infrastructural reasons (e.g., a nightly satellite link) are classified as one-way or two-way non-real-time communications.

The structure of these campaigns is based on the ability to link to the media owner’s internal inventory management system (IMS), which is critical for managing campaign scheduling and adding/removing panels or sites. The mobile technology platform will need to import data into the media owner’s IMS to flag panel performance for campaigns. This allows for maximizing assets and the ability to package sites or panels for advertisers. This is ideally managed with a cloud-based platform via a media owner’s IMS.

It should be noted that social and mobile programs do not require OOH networks to purchase additional hardware or change their operational workflows. These programs can be scheduled like any other OOH media.

## The Social OOH Message Path

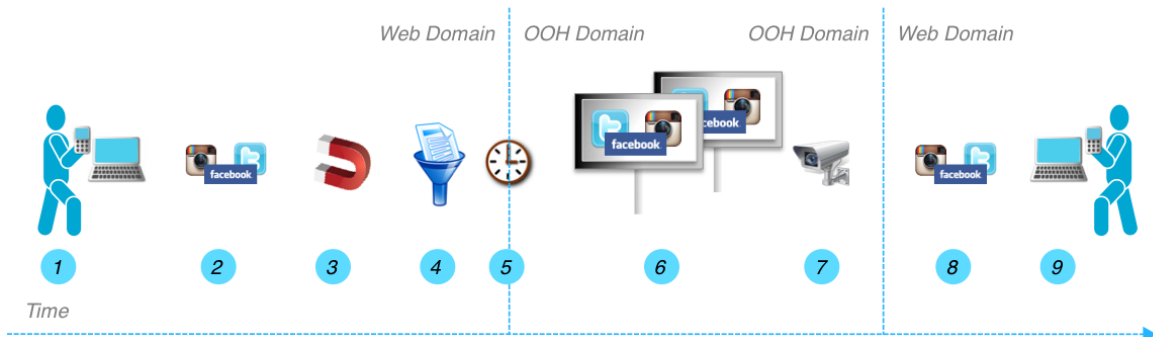


FIG.2 The Social OOH Message Path

1. User sends a message/photograph to a social network.
2. Social network posts message/photograph, which can be viewed/accessed publicly and/or by authorized users.
3. Media system pulls messages/photographs based on various criteria such as, but not limited to, hashtags, keywords, account names, user names, locations, trending topics, and more.
4. Media system filters and/or enables moderation of messages/photographs according to moderation guidelines set by campaign/brand/venue.
5. Filtered and moderated message platforms are now available for OOH systems. For real-time campaigns, the platform *pushes* messages/photographs to an OOH system, which then updates content as soon as it runs. Alternatively, for non-real-time campaigns, an OOH system *pulls* the platform when it is able to connect to the Internet.
6. OOH system displays the social content media. Note: At this stage the only difference between two-way and one-way campaigns is determined by the ability to display the message/photograph in real-time. Non-real-time campaigns and/or networks will display the message/photographs at a time determined by system capabilities and/or by the campaign design.
7. For two-way campaigns only, a feedback loop is created with the user. This can be done in a number of ways such as capturing the user's message/photograph on an OOH screen via a webcam and feeding the webcam image back to the user. Other feedback strategies include, but are not limited to, enabling an online version of the content for end-users or sending a confirmation text, Tweet, post or email.
8. The feedback is sent to a website, social network, or user's email.
9. The user is able to spread the user experience around their social geography (e.g., their friends, family, fans, and followers) using social options available based on a specific social platform (e.g., Like, Share, Tweet, Email, etc.).

## Content Management

Content management should be self-service to allow efficient management and minimize reliance on vendor support. An important component to digital executions is having a fallback campaign, so when a paid advertiser is not running on a touchpoint, there is still content available.

The following are management features that will allow media owners to manage mobile campaigns and touchpoints:

- Campaign management
- NFC supply, management, and tracking
- QR code generation, management, and tracking
- SMS management and tracking
- Link generation, management, and tracking
- Touchpoint management, grouping, and tracking
- Booking / calendar system
- Fallback campaign

## Mobile Offerings

Several forms of mobile offerings can be used to support mobile technology platforms. They include:

- Dynamic URL
- Rich media experiences
- Targeted experiences
- Gamification
- GPS detection facility
- Payments
- Coupons
- Loyalty
- Cross browser and OS Support

## Touchpoint Design

Some technologies – primarily, NFC and QR codes – require a dedicated touchpoint for consumer engagement. The touchpoint needs to be tamper-proof and resistant to atmospheric conditions. Campaigns will need a unique QR code for each URL being shared with a consumer, similar to creating bar codes for a line of products. Below is the industry recommended design for NFC touchpoints.



*FIG.3. NFC Touchpoint Design.*

Touchpoint designs should include simple instructions for the interaction. Media operators are welcome to modify the design with company logos, corporate brand elements, and other custom embellishments, but the NFC logo should not change. Below is a design example.



## Campaign Requirements

A simplified value chain for social OOH is represented in FIG 4.



FIG.4. The Social OOH Value Chain.

*NOTE: Creative and media buying agencies are not included in the value-chain as they are not critical to the end-to-end technology, although they are critical to adoption.*

The requirements of each part of the value chain are listed in Table 1: Social OOH Requirements.

**TABLE 1: Social OOH Requirements**

KEY:

Y	Yes, Required for Social OOH
N	Not Required or Not Applicable for Social OOH
O	Optional (e.g., a feature that could help enhance programs but is not mission critical)
R	Recommended as a best practice

	REQUIREMENTS	Two-way real time	Two-way	One-way real time	One-way
A	Management Services for OOH				
A1	Support for Twitter streaming API <a href="https://dev.twitter.com/docs/streaming-apis">https://dev.twitter.com/docs/streaming-apis</a> <i>NOTE: Twitter, Facebook and Instagram are three of the most popular sources for user-generated content (UGC) that can be displayed publicly. Other popular social networks such as Pinterest and Flickr are not supported due to their abundance of copyright restricted content.</i>	Y	Y	Y	Y
A2	Support for Twitter REST <a href="https://dev.twitter.com/docs/api">https://dev.twitter.com/docs/api</a>	Y	Y	Y	Y
A3	Support for Facebook API <a href="http://developers.facebook.com/docs/guides/canvas/">http://developers.facebook.com/docs/guides/canvas/</a>	Y	Y	Y	Y
A4	Support for Instagram API <a href="http://instagram.com/developer/realtime/">http://instagram.com/developer/realtime/</a>	Y	Y	Y	Y
A4	Support for Foursquare	O	O	O	O
A5	Operate under rate limits of required social media services (required for popular brands events/campaigns).	Y	Y	Y	Y
A6	Operate with major Digital Signage and Content Management Systems (CMS)	Y	Y	Y	Y
A7	Email feedback response	O	N	O	N
A8	Low latency round-trip for real-time programs (under 50ms end-to-end)	Y	Y	N	N
A9	Analytics: Output of user interactions (# messages, conversation rate, # approved/deleted, as required by program) <i>NOTE: It is assumed that proof-of-play data is typically provided by the DS/CMS platforms but a Social OOH two-way real time or one-way real time program can also provide that data as they ping a host every times they run (non-real-time Social OOH programs do not ping a host every time they run).</i>	Y	Y	Y	Y
A10	Proof of Play: Programs can ping a host every time they run, providing additional analytics to the DS and/or CMS systems. See NOTE A10	R	R	R	R
A10	Supports Social OOH compliant moderation	Y	Y	N	N
A11	Extensibility: Solution should be able to support connections to new social media content sources as they become required. (e.g., a fixed Twitter widget is not a sustainably compelling solution.)	R	R	R	R
A12	Scale: System should be capable of supporting tens of networks, thousands of venues, and millions of messages per second.	R	R	R	R
A13	Recommendation: Social OOH solution enables rapid development of applications and the UX. (e.g., The presentation layer utilizes multiple languages including, but not limited to: Flash, Objective C, AJAX, and JavaScript.	R	R	R	R
A14	Recommendation: Solution(s) Does NOT require proprietary hardware at OOH network	R	R	R	R
A15	Web-based social media integration (i.e. non-OOH sites) e.g. extensions to brand websites, Facebook etc.	Y	N	Y	N
A16	Support for synchronous interactivity across Mobile/Social/DOOH (displaying the same events on multiple screens/networks/channels simultaneously).	O	N	O	N
A17	Subject to C3 below, support for synchronized camera capture of screen events.	O	N	O	N
A18	Legal Compliance:	Y	Y	Y	Y

	Complies with 3rd party social media services' requirements, guideline terms. Complies with National and Local legal requirements for displaying user generated content (also see Recommended re Errors and Omissions insurance).				
A19	Best practice: Errors and Omissions insurance can signal to buyers that they are dealing with a professional supplier and reinforces confidence in the medium and technologies.	R	R	R	R
A20	Best Practice: Solutions that have been specifically designed for the OOH environment are more likely to deal with the unique requirements of the media than say a web solution that can be used in OOH.	R	R	R	R
<b>B</b>	<b>Real-time Moderation, Filtering and Curation Services</b>				
B1	Supports text and photo modes	Y	Y	Y	Y
B2	Supports pre and post moderation modes	Y	Y	Y	Y
B3	Tracking/Audit features	Y	Y	Y	Y
B4	Supports multiple tags and filters (e.g., "not tags" & remove RT)	Y	Y	Y	Y
B5	Editable filters and dictionary	Y	Y	Y	Y
B6	Message "watchdog" threshold notification system to economically/efficiently run 24/7 moderation.	O	O	O	O
B7	Scales to multiple simultaneous moderation seats/campaigns	O	O	O	O
B8	In line display of campaign moderation policies/guidelines. <i>NOTE: Best practices are important when dealing with UGC to ensure that what's intended to be displayed IS displayed and conversely what's intended to be blocked IS blocked.</i>	R	R	R	R
<b>C</b>	<b>OOH Network</b>				
C1	A persistent wired connection to Internet	Y	N	Y	N
C2	Runs Social OOH compliant Social Media Message (A: above) and Moderation (B: above) services	Y	Y	Y	Y
C3	Camera capture: Camera capture is a popular feature where the OOH screen is in an icon public space such as Times Sq. To support this feature, the Social OOH application needs to additionally synchronize the camera to the screen at the moment when the actual content is being displayed and then to send that screen capture back to a designated website or social network. Campaigns that have done this are included in Appendix 1.	O	N	O	N

## Reporting

The level of access to the data on a mobile technology platform will be dictated by the user. Agencies, OOH specialists, and advertisers will want to view reporting for campaigns across multiple formats and media owners. Media owners will want to view data for campaigns across their inventory for the clients and agencies they service. Reporting should be customized for each media owner's inventory and data sets.

Reporting should include a series of dashboard configurations, such as:

- Campaign dashboard with advanced filtering
- Network dashboard with advanced filtering
- Consumer trending dashboard
- Market insights dashboard
- Mobile dashboard

## Mobile Content Management

Media companies must establish management tools for mobile content. These platforms should include the capability to upload mobile content, images, and links as well as create mobile landing pages for campaigns. The platform must be able to handle large volumes of data and mobile content delivery simultaneously.

It will be helpful for the platform to have multiple access levels to allow graphic designers or related contributors to only manage the creative part of the overall campaign. Below are features to consider when developing a platform:

- Self-service mobile content creation and management
- Social media elements
- Multimedia elements
- Interactive image gallery
- Data capture
- Auto response email tool
- What You See Is What You Get (WYSIWYG)

How data is accessed, stored, and handled between APIs is very important. There must be back-up and recovery protocols in place. Additionally, most social media platforms have restrictions on how user data and content can be used. The platform must be able to function within these guidelines.

Customer support and responsiveness is a critical factor to establish a good partnership for these campaigns. It is important for advertisers and agencies to view media companies as partners who can provide insights, expertise, learnings, and best practices for campaign set-up and execution.

## Considerations for Digital OOH Networks

Digital OOH networks with intermittent Internet connectivity must be able to cache updates to provide “warm application state” so the correct content reaches the application as quickly as possible. This helps prevent OOH screens displaying blank fields or empty spots within their loops. To achieve this, campaign platform services can establish an open connection and push content to applications through technologies like WebSockets or the STOMP protocol. This can save round-trip bandwidth and time but also enables fresh engagement.

If a social OOH application does not have cache configured at start-up, it will require a persistent Internet connection that can listen for specific update data or it will be unable to display content until the Internet connection returns.

Digital OOH campaigns often need to run on multiple networks, channels, and screens. This often requires a number of dynamic features. Adobe Flash remains a good platform of choice to run OOH applications. Currently, HTML5 does not yet have the widespread adoption or features for many real-time requirements.

## Appendix 1: Mobile Technology Platform Requirements (RFP)

### Management Tools

Current technology management tools must be available to manage mobile campaigns and touchpoints. The systems should be self-service and minimize reliance on vendor support. Systems must have fallback campaign options as an automatic default when paid advertisers are not running content on associated touchpoints. Management functionality should include, but is not limited to:

- Campaign management
- NFC supply, management, and tracking
- QR code generation, management, and tracking
- SMS management and tracking
- Link generation, management, and tracking
- Touchpoint management, grouping, and tracking
- Scheduling/calendar system tracking
- Fallback campaign management

### Mobile Offerings

The following mobile offerings must be supported by the mobile technology platform. Please provide case studies or demo experiences with these types of mobile campaigns.

- Dynamic URL
- Rich media experiences
- Targeted experiences
- Gamification
- GPS detection facility
- Payments
- Coupons
- Loyalty
- Cross browser and OS Support

### Integration

The ability to link a media owner's internal inventory management system is necessary to adequately manage campaign scheduling and the function to add/remove panels or sites. It is also a requirement to import data from mobile technology platforms back into a media owner's IMS to flag panel performance during campaigns. This requires the following functionality:

- Manage cloud based platform via a media owner's inventory management system (IMS)
- Retrieve data from cloud based platforms to IMS

### Reporting

Custom reporting is required and specific to each media owner's inventory and data sets. Reporting structure may include, but is not limited to:

- Campaign dashboard with advanced filtering
- Network dashboard with advanced filtering
- Consumer trending dashboard
- Market insights dashboard
- Mobile dashboard

### Mobile Content Management

Self-service mobile campaign creation and management is required. This includes the capability to upload mobile content, images, and links as well as create mobile landing pages for campaigns. Platforms should have access levels to allow for graphic designers or other users to only manage selected parts of an overall campaign management system. Content management should include, but is not limited to:

- Self-Service mobile content creation and management
- Social media elements

- Multimedia elements
- Interactive image gallery
- Data capture
- Auto response email tool
- WYSIWYG
- Plain text section for feature phone message delivery

#### Access Levels

- Access management – enable agency/brand to access specific campaign dashboards
- Multi-level access (administrator, super-user, user)
- Password retrieval process for users

### Scalability

Technology platforms must handle large volumes of data and mobile content delivery simultaneously. This includes:

- High volume mobile content delivery
- High volume engagements
- Servicing and supporting multiple media owners

### Data

Data back-up and recovery protocols are required. Data management includes, but is not limited to:

- Access and security
- Large data handling
- Back-up and recovery
- SSL
- API's

### Support

Responsive customer support is a critical factor in fostering a good partnership with media vendors. This includes:

- Technical and creative services
- Strategic consultancy
- A comprehensive service level agreement (SLA)

### Touchpoints

OOH industry standard touchpoints may only be utilized to promote NFC, QR, and SMS (or a newer technology).

### Proposal Submission Requirements and Timelines

Technology providers are required to submit a video demo or live demo with a mock campaign showing how specific campaign criteria will be met (not a written submission). This can be accompanied by a reference document describing components or special attributes of their mobile platform, but is not required.