Transitioning Video Ads from Flash to HTML5/JS

Publisher Checklist

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Overview

Moving away from Flash is critical for browser capability, power consumption, and user experience. Publishers in particular have the highest incentive to move away from Flash because they will be the most visible face to users who run into the Flash plugin errors and requests to enable the plugin.

As indicated in the IAB Tech Lab recommendations (available at https://iabtechlab.com/html5videotransition) the Digital Video Technical Working Group has set a target of **July 2017** to move all video ads away from Flash and be fully on HTML5 and JavaScript (JS). That said we recognize the challenges of making the transition off of Flash to HTML5/JS. To that end, we have put together this brief checklist and recommendations for publishers and technology vendors to help with their move to HTML5/JS.

Note: For the purpose of this document, we will assume that publishers already have decided that they need to move to HTML5/JS from Flash for their content. I.e., we will not get into discussions about DRM (Digital Rights Management), the need to move away from RTMP (Real-Time Messaging Protocol) streaming for their content, and other questions about the differences between Flash and HTML5/JS in the context of editorial content.

Challenges

1. **Demand** - Decision on when to move to HTML – worries about whether there is enough demand for HTML/JS ads.
2. **Technology** – publishers are responsible for a majority of the infrastructure changes that are necessary to move to HTML from Flash. There are a number of different components beyond the player that need to be tracked, and decisions on what behaviors to support during the transition period (listed below), which may make the tech update complicated for some publishers.
3. **Browser support** – Not all browsers – especially older versions – can support all streaming formats natively with HTML5. Balancing the elimination of Flash with the support of these browser versions could be an issue.

Tech Guidance

Publishers should take into account the delivery mechanism for HTML/JS ads and prepare to work with all involved vendors.

1. Player
   a. Support for HTML5 video and JS VPAID (this should be a non-issue at this point of time). Note that VPAID 2.0 is the minimum version required (1.0 does not support JS).
   b. Support for both Flash and HTML5 until Flash is gone on the publisher's property - or by July 2017 as indicated by the IAB Tech Lab guidance.
   c. Support for simple video ads when both Flash and a plain media file are provided in the (hybrid) VAST (Video Ad Serving Template) tag. This should be an HTML5 compliant media file and not a Flash FLV.
   d. Ensure that once Flash support has been stopped, SDK/Player will gracefully reject VPAID SWF (without breaking).
   e. Check if your VPAID tech vendors integrate well with your player's JS implementation.
   f. Ensure that SDK/Player gracefully rejects errant VPAID JS.
   g. Since each player is different, test your player on various browser versions to ensure that player supports all the capabilities you need on all browsers you are interested in.
   h. As browsers work through the change in Flash support, test against specific browser versions to confirm the behavior of the player. For example, Chrome 55 (currently in Beta) enables users to opt out from Flash content where similar HTML content is available alongside. Go to chrome://flags and "Enable" the "Prefer HTML over Flash" experiment.
2. Verification vendors
   a. Ensure they support HTML5/JS versions and do not have issues with Flash wrappers.
   b. If you are using your own implementation, ensure that you are handling JavaScript based viewability correctly. OpenVV recently released an update which includes an Intersection Observer implementation, which you might be able to use. Please visit https://iabtechlab.com/blog/open-vv-2-5-5/ for more info.
3. Ad servers
   a. Update SDK to eliminate Flash dependencies.
   b. Understand their timelines for eliminating Flash.
4. OpenRTB settings
   a. Use VPAID 2.0 in the "video api" attribute and stop using 1.0. Refer to Table 5.6 for the enumeration.
   b. Once Flash support is ready to be wrapped up, stop using Flash (x-flv, x-shockwave-flash…) in the "mimes" attribute.
5. Measurement vendors (Comscore, Nielsen, etc.)

       a. Update SDK if it is currently Flash-based, to make them non-Flash-based.
6. Others
       a. Test to ensure that the libraries/SDKs you use for other features (e.g. geolocation, other metadata) are ported correctly to HTML5.

Operational Guidance

Making this transition potentially involves many interrelated tasks. This checklist is a suggestion around what each publisher might have to look into. The actual tasks will vary depending on individual needs:

- Define your transition's rollout
  - Define the timeline for the transition from Flash to HTML5/JS support for your properties.
  - Phased vs hard cutover - each publisher could choose to make the transition for all their properties or could use a phased approach where some properties might switch over to HTML5 while some stay on Flash. While the phased approach will help manage ongoing demand for Flash inventory, maintaining both formats simultaneously also entails technical and operational complexities.

- Internal communication
  - Sign-off on timeline (Keep the July 2017 elimination date in mind)
  - Compose prioritized list of ad vendors & advertisers for next X days/months/quarters (depending on bandwidth and timeline for rollout)
    - Ad server
    - Ad creative vendor
    - Measurement vendors

- External communication
  - Target
    - Ad vendor outreach
    - Advertiser outreach
  - Content in the outreach
    - Communicate cutover timelines
    - Ad specifications
    - Request test tags (for all phases)

- Initial creative testing
  - Must be able to provide a 3rd party testing environment (a test page) for vendor access and approval.
  - This is essential to ensure that ads are able to run correctly on your properties.

- Player and CDN (Content Delivery Network) testing and certification

- ○ Ensure that the Player and CDN infrastructure are correctly tested to support HTML5 video format delivery and playback.

- ● Revise your ad specifications to support Flash deprecation
  - ○ Some policy examples (depending on the capabilities of publisher's site and the cutover plans):
    - ■ Accept MP4s only; no longer accept Flash FLVs for video ads (This should be immediate as there is no good reason to keep using Flash for simple video ads)
    - ■ Convert existing Flash FLV creatives to MP4
    - ■ Use the updated IAB Video Ad format guidelines. They can be used even if you are not yet supporting VAST 4.0 and are available at http://bit.ly/videoAdGuidelines
    - ■ VPAID JS must be included in VAST tags that contain VPAID SWF (assumes correct handling of such Hybrid VAST tags)
    - ■ No longer accept VPAID SWF (after a given date – earlier than July 2017)

- ● Communicate newly revised ad specs to vendors and advertisers (clients) well before the actual updates and give them as much lead time as possible
  - ○ Ensure that they are aware of the need to convert video assets to HTML5 format if necessary

- ● Third-party ad vendor certification
  - ○ Ensure ad vendor is compliant for VPAID JS with IAB
  - ○ Ensure the ad vendor test tags follow the revised publisher ad specifications
  - ○ Ensure first and third party metrics align

- ● Exchange vendor certification
  - ○ Ensure exchange partner only returns creative that follows revised publisher ad specifications
  - ○ Vendor should provide new tags or update tags on backend
  - ○ Testing should be conducted with the new tags

- ● Cutover
  - ○ Perform live campaign setup and QA (Quality Assurance)
    - ■ For example, test the new tags that need to be set up in the ad server to support Flash-free ads
  - ○ Launch
  - ○ Perform post launch reporting checks on performance and capacity as well as demand for various types of ads