



# TRANSITIONING FROM FLASH TO HTML5

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This document was developed by the IAB Video Council.



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#### About the IAB Australia Video Advertising Council

The Video Advertising Council was formed in 2014 to help support the growth of an area of the market that now represents a significant portion of digital display advertising. The Council meets every two months from April to drive projects in relation to measurement, advertising standards, best practice, research of streaming ads across different consumer screens and video ad expenditure.

# FLASH GOING AWAY

## In Browser

All major browsers are transitioning away from the use of Flash, and have introduced progressively greater restrictions. Safari moved to HTML5-by-default in September 2016. Chrome will follow in version 55, released December 2016. This feature will mean the browser keeps the presence of Flash hidden, preferring to fall back on HTML content. Because most players in the wild have an HTML5 fallback or are already HTML5-first, the impact of this will be widespread. It takes a few different forms:

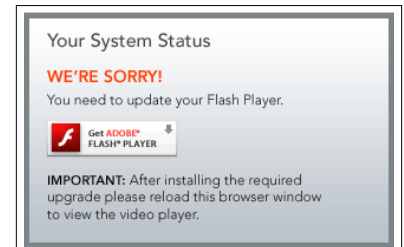
- 1 HTML5 players never try to load Flash.** The most common scenario, especially on short-form / non-DRM'd content, as publishers have broadly transitioned to HTML5 players over the last couple of years. In the case of video playback, this doesn't have major impact as these players are written to run across desktop and mobile consistently.

In the case of video advertising however, this has significant impact. Advertising plug-ins for the player(s) run by querying the browser for its capabilities. When the browser reports that Flash is unavailable, the player will reject any Flash-based ads and move onto the next-best option. Where ads are only provided in a Flash format, they will simply abandon the ads.

```
VIDEOJS: ima3-ad-error AdError 403: Linear assets were found in the VAST ad index.min.js:8 response, but none of them matched the video player's capabilities.  
▶ Object {type: "ima3-ad-error", emitter: Z, originalEvent: ce, target: document, relatedTarget: undefined...}
```

- 2 Flash-first players show HTML5 players.** For many publishers this will be the next most common scenario, as publishers have been serving HTML5 fallback to mobile devices for years. The impact on advertising is the same as above.

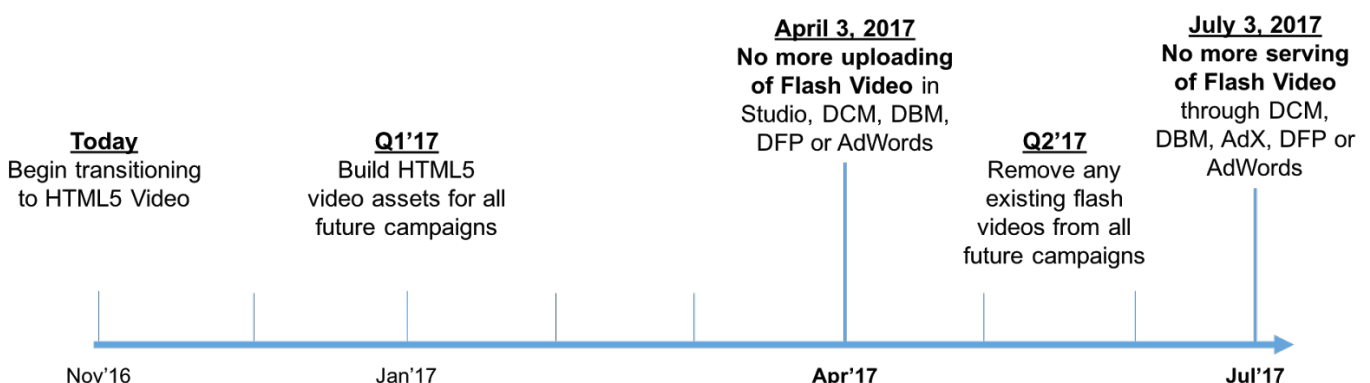
- 3 All-Flash players show fallback content.** In cases such as this (see example on right), when the user clicks the 'install' link, the browser will prompt the user to explicitly allow Flash to run on the relevant website. If the user chooses to allow Flash, the player will load and Flash-based ads will be served within it.



*(Exceptions: Chrome will initially release v55 with users automatically opted-in to Flash on sites in their browser history. This will lessen the impact for return visitors, but any who appear 'new' to a site will experience one of the above.)*

## In DoubleClick

Beyond the browser transition, ad servers are also moving away from Flash. DoubleClick has published an external blog post to notify DoubleClick's customers of their plan for Flash Deprecation in 2017. DoubleClick is planning a phased approach across both buy-side and sell-side products (DCM, DBM, DRX, AdSense) that will stop all flash video ads from serving by July 2017.



## TRANSITION

### HTML5 VPAID and HTML5 Video Players

The IAB VPAID 2.0 specification includes HTML5 based VPAID, removing the requirement for flash.

HTML5 VPAID was included in the VPAID 2.0 spec, and is broadly supported in HTML5 web players. It is designed broadly as a replacement for Flash-based VPAID, with a largely similar API and Event specification. It can be run on both desktop and mobile web (with considerations).

**For advertisers**, the recommended transition approach is to build and serve ads with both HTML5 and Flash-based creative, and ensure the chosen technology partner can deliver to both HTML5 and Flash-based players. This approach allows older Flash-based players to still run creatives, while HTML5 players can run the same ads.

**For publishers**, transitioning to HTML5 only based video players and ad software on desktop will ensure the user experience of their site is not impacted by the removal of flash. Browsers that limit flash will impact video player loading causing a reduced user experience and possibly impacting video views.

### VPAID 2.0 IAB Australia

For more information on VPAID 2.0, visit the following link:

<https://www.iabaustralia.com.au/guidelines-and-best-practice/guidelines-best-practice/item/29-video-player-ad-interface-definition-vpaid-2-0-guidelines-2013>

### VAST 4.0

VAST 4.0, the latest iteration of the Video Ad Serving Template, includes proposals designed to move beyond some of the limitations of VPAID. It is not yet broadly supported by ad servers and players, but should be considered a transitional goal. It offers:

- The ability to side-load interactivity elements, allowing a video ad to be run in basic players or devices that don't support interactivity, with enhancements on players or devices that do.
- The ability to side-load verification scripts, rather than relying on VPAID wrappers to run verification or viewability reporting.

Because these features help remove some of the key use cases for VPAID, which has traditionally been restricted to running on the desktop, VAST 4.0 additionally helps open up inventory beyond the desktop.

For more information on Vast 4.0 in Australia see the below IAB information.

VAST 4.0 IAB Australia: <https://www.iabaustralia.com.au/research-and-resources/research-resources/item/12-research-and-resource/2185-vast-4-0-Australia>

Understanding and Adopting VAST4.0: <https://www.iab.com/events/understanding-and-adopting-vast-4-0/>

## CONSIDERATIONS

### Publishing

- Transition to HTML5-based video players.
- Transition to HTML5-first ad delivery, allowing Flash to be loaded in on older browsers.
- Require ad creative to be delivered in an HTML5-supported format; creative specs need to address format requirements but also supporting delivery information, e.g. file sizes, player sizes, the need for mobile and/or desktop support, browser version requirements.
- Ad requirements will likely vary depending on player contexts, so should be validated with creative agencies, understanding that Flash for HTML5 isn't a simple one-to-one swap.

### Ad Formats

- Most linear video advertising is provided in a variety of video formats; typically this includes MP4, WebM, and FLV. Without Flash, browsers are still able to run MP4 or WebM, so it isn't expected that any additional work is required here.
- VPAID however is widely used for interactive ads, but also to wrap client-side programmatic or verification scripts.
- These wrappers are sometimes applied by ad servers rather than advertisers, so Operations teams need to be aware of where particular ad formats are being delivered from.

### Interactivity

- Interactives should be produced in both HTML5 and Flash formats, transitioning to all HTML5 over the coming months.
- HTML5-based interactive VPAID can run on desktop and mobile so should be designed and tested for different screen sizes.
- Testing of creative builds needs to consider different browser environments depending on publisher requirements.

### Verification

- If using wrappers for viewability measurement, ensure both HTML5 and Flash VPAID wrappers are delivered.

### Client-side Programmatic

- Ad servers or networks delivering VPAID wrappers to run client-side programmatic need to transition to delivery HTML5 and Flash formats.
- Because of client-side security requirements, VPAID wrappers may not be able to make auction decisions based on page content, so should fail gracefully wherever possible.

### Security

- HTML5 VPAID should be run in 'secure' mode in browser, which prevents access to the containing page.
- This doesn't specifically require HTTPS delivery, but with publishers transitioning to HTTPS, expect this to become a requirement; all scripts and measurement tags should be available over HTTPS.