VAST 4.x Benefits Overview

Why you should include the latest version of VAST 4.x (Video Ad Serving Template) in your product roadmap

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Benefits Overview

VAST (i.e. Video Ad Serving Template) is a communication standard that allows ad servers and video players to talk to each other. As the video ecosystem has evolved (with the emergence of mobile and OTT – among other things), VAST has evolved with it. The latest version of VAST includes improvements that will help ensure smooth ad delivery and measurement and solve for the transparency issues that were prevalent with previous versions. The current version is VAST 4.2 (released June 2019). Read more on the evolution of the video ad serving standards in this post: Simplifying Video Ad Delivery.

BENEFIT	 **Improves video creative quality** • No blurry video ads.	 **Better ad delivery and more efficient transactions** • Reduced errors (i.e. broken ads that don't play) & enhanced reporting across delivery systems.	 **Streamlines and improves measurement, verification, and reporting efforts** • Simplifies tags which enables better measurement. • Better management and tracking of creative assets (with Ad-ID integration).
CORRESPONDING VAST 4.X FEATURES/SOLUTIONS	• Improved user experience with mezzanine file and SSAI support (i.e. allows for more device coverage, higher quality video ads, etc.). • Allows the video player to deliver the right ad based on available bandwidth with "ready-to-serve" file support. • Opportunity for creative innovation with increased support of interactivity and audio.	• Better understanding of client (device) capabilities via macros translates to fewer errors. • More context maintained across the entire delivery chain. • Simplified ad delivery architecture (i.e. separation of media file from interactive/verification code) which leads to fewer blank or delayed ads.	• Better support across all verification vendors (VAST4.x + OMID allows a single tag to work across all platforms). • Brand visibility at creative level; ability to view where their ads appear enables better reporting.

VAST 4.x Features and Benefits for Publishers

	UPDATES AND FEATURES	WHY IT MATTERS FOR PUBLISHERS
IMPROVES VIDEO CREATIVE	**Mezzanine file support** A high-quality media file that can be used to transcode (i.e. convert) the video to any desired quality - by SSAI servers as well as 3rd party ad servers.	• Ability to support SSAI with all its related benefits such as more device coverage, better user experience/quality, no ad blocking, etc.
	SSAI features In addition to the mezzanine file support, there is a separation of code from the media file, directions for handling headers, tracking beacons, ad requests, etc.	
	"Ready to serve file" support (low/med/high resolution media files) 3 pre-defined quality media files that can be used for adaptive streaming. The video player will choose the most appropriate file depending on the viewer's streaming environment and will seamlessly transition between video files if the environment or streaming capabilities change during video playback.	• Ensures video will always play regardless of viewer's streaming environment.
	Video ad interactivity handled via SIMID (Secure Interactive Media Interface Definition), replacing VPAID (which is being deprecated) Better support for interactivity with a separate node that will help ensure safe execution.	• Publishers are more likely to support interactive code because they can run them in safe iFrames without risking bad user experience or data leakage; previously impossible due to the black box, non-transparent nature of VPAID.
	VAST interactive templates Standardized interactive experiences that can be driven by data in a VAST template instead of executable code. The first example an interactive template in VAST 4.x is the "end card."	• Supports interactivity for more platforms, like connected TVs and mobile, which couldn't previously utilize VPAID.
	Support for audio ads DAAST now merged into VAST. VAST 4.1 also introduced hybrid audio/video ad support.	• No need to support DAAST separately. • Support for creative innovation that utilizes video and audio (i.e. audio fall backs, where an audio only ad replaces the video if the video player or the app itself is in the background).
	Closed captioning (for ads) Enables closed captioning for ads by standardizing the delivery of closed captioning files.	• Better accessibility support (i.e. the player can easily access all information needed to present closed captioning to the viewer).

BETTER AD DELIVERY AND MORE EFFICIENT TRANSACTIONS	UPDATES AND FEATURES	WHY IT MATTERS FOR PUBLISHERS
	Support for ad cloud hosted video creative Brands can host their creative centrally, in an ad cloud, and share VAST 4.x tags that can then be wrapped by upstream ad servers and/or DSPs.	• Better quality ads due to sourcing from trusted content repositories.
	New error codes	• Better debugging and reporting.
	Ad request (macro-based) spec Ability to send client context via macros including player capabilities (means that the VAST response can be built to match the player's capabilities). Standardized server to server communication.	• Fewer errors due to VAST macros including more information about player capabilities. • Better workflows due to more context across the entire delivery chain.
	Ad categories Separate node for ad categories. Well defined registries for advertising assets.	• Better support for brand safety and competitive separation.
	Limit on wrappers Limit the number of wrappers allowed to 5.	• Improves user experience by preventing excessive VAST wrapper re-directs where one wrapper (i.e. piece of code) points to another wrapper instead of pointing directly to the creative.
	Separation of media file from interactive code/ verification code VAST 4 has separate nodes for the media file (i.e. MP4), the verification code, and the interactive code.	• Transparency - eliminates VPAID black boxes where the publisher is not aware of what is inside the VPAID tag. Verification and interactive code are clearly marked, as is the source. • Safety - now that the purpose and source of executable code are clear, the correct levels of access can be provided to the ad. Interactive code can be run in safe iFrames and the verification code can be run with more access to enable better measurement. • Execution - fewer problems because executable code is separated from the media file - better support for mobile and CTV platforms.

STREAMLINES AND IMPROVES MEASUREMENT AND VERIFICATION EFFORTS	UPDATES AND FEATURES	WHY IT MATTERS FOR PUBLISHERS
	Verification & viewability support via Open Measurement Better support for verification (separate node, viewability & verification beacons). Previously, running measurement code was possible only through Video Player-Ad Interface Definition (VPAID) media files, which would unnecessarily obscure and delay the actual creative content. This also meant that verification vendors became responsible for video playback, rather than simply acting as an observer. The only alternative to this setup was for each vendor to maintain a number of bespoke solutions with individual players.	• Publishers are more likely to support verification because they no longer have to use VPAID – which was a black box that didn't allow transparency. • Open Measurement allows publishers to support all verification vendors without custom tags for each individual verification vendor. • VAST4.x + OMID allows for a single tag to work across all platforms; this reduces the amount of work needed to implement verification solutions, reduces the risk of error, and enables a more seamless consumer video experience.
	Universal AdId Mechanism to clearly identify video assets, using standard ad registries (like Ad-ID).	• Easier to track creative asset details for various use cases such as evaluating brand safety. • Better measurement/reporting capabilities resulting from the ability to identify a specific asset.

VAST 4.x Features and Benefits for Advertisers

	UPDATES AND FEATURES	WHY IT MATTERS FOR ADVERTISERS
IMPROVES VIDEO CREATIVE	**Mezzanine file support** A high-quality media file that can be used to transcode (i.e. convert) the video to any desired quality - by SSAI servers as well as 3rd party ad servers.	• Ensures that the best quality video is delivered across all platforms and publishers. • Ads can be delivered to more devices.
	SSAI features In addition to the mezzanine file support, there is a separation of code from the media file, directions for handling headers, tracking beacons, ad requests, etc.	
	"Ready to serve file" support (low/med/high resolution media files) 3 pre-defined quality media files that can be used for adaptive streaming. The video player will choose the most appropriate file depending on the viewer's streaming environment and will seamlessly transition between video files if the environment or streaming capabilities change during video playback.	• Ensures the best quality video will play regardless of viewer's streaming environment.
	Video ad interactivity handled via SIMID (Secure Interactive Media Interface Definition), replacing VPAID (which is being deprecated) Better support for interactivity with a separate node that will help ensure safe execution.	• More interactive inventory. • Easier to write interactive code when the code doesn't have to worry about supporting measurement and owning video ad playback.
	VAST interactive templates Standardized interactive experiences that can be driven by data in a VAST template instead of executable code. The first example of an interactive template in VAST 4.x is the "end card."	• Support for more platforms, like connected TVs and mobile, which couldn't previously utilize VPAID.
	Support for audio ads DAAST now merged into VAST. VAST 4.1 also introduced hybrid audio/video ad support.	• No need to support DAAST separately. • Support for creative innovation that utilizes video and audio (i.e. audio fall backs, where an audio only ad replaces the video if the video player or the app itself is in the background).
	Closed captioning (for ads) Enables closed captioning for ads by standardizing the delivery of closed captioning files.	• Better accessibility support (i.e. the player can easily access all information needed to present closed captioning to the viewer).

BETTER AD DELIVERY AND MORE EFFICIENT TRANSACTIONS

UPDATES AND FEATURES	WHY IT MATTERS FOR ADVERTISERS
Support for ad cloud hosted video creative Brands can host their creative centrally, in an ad cloud, and share VAST 4.x tags that can then be wrapped by upstream ad servers and/or DSPs.	• Better control over creative asset usage by limiting the number of copies that exist across the ecosystem. • Better rights tracking. • Allows for rapid decommissioning when necessary.
New error codes	• Better debugging and reporting.
Ad request (macro-based) spec Ability to send client context via macros including player capabilities (means that the VAST response can be built to match the player's capabilities). Standardized server to server communication.	• Fewer errors due to VAST macros including more information about player capabilities. • Better workflows due to more context across the entire delivery chain.
Ad categories Separate node for ad categories. Well defined registries for advertising assets.	• Better support for brand safety and competitive separation.
Limit on wrappers Limit the number of wrappers allowed to 5.	• Improve user experience by preventing excessive VAST wrapper re-directs where one wrapper points to another wrapper instead of pointing directly to the creative.
Separation of media file from interactive code/verification code VAST 4 has separate nodes for the media file (i.e. MP4), the verification code, and the interactive code.	• Simpler architecture enables creators to focus on interactive ad units without the use of complex (now obsolete) VPAID code. • Better support for mobile and CTV platforms. Previously, VPAID could not run on those platforms. Now, the media file is guaranteed to run (SSAI or not) and the executable code can be layered on a VAST tag, which provides the video file separate from APIs. Can display more successfully across platforms and devices.

STREAMLINES AND IMPROVES MEASUREMENT AND VERIFICATION EFFORTS

UPDATES AND FEATURES	WHY IT MATTERS FOR ADVERTISERS
Verification & viewability support via Open Measurement Better support for verification (separate node, viewability & verification beacons). Previously, running measurement code was possible only through Video Player-Ad Interface Definition (VPAID) media files, which would unnecessarily obscure and delay the actual creative content. This also meant that verification vendors became responsible for video playback, rather than simply acting as an observer. The only alternative to this setup was for each vendor to maintain a number of bespoke solutions with individual players.	• More verifiable inventory available and better support for all verification vendors. • VAST4.x + OMID allows for a single tag to work across all platforms which reduces the amount of work needed to implement verification solutions, reduces the risk of error, and enables a more seamless consumer video experience.
Universal AdId Mechanism to clearly identify video assets, using standard ad registries (like Ad-ID).	• Easier to track creative asset details for various use cases such as evaluating brand safety. • Better measurement/reporting capabilities resulting from the ability to identify a specific asset.

VAST 4.x Features and Benefits for Consumers

	UPDATES AND FEATURES	WHY IT MATTERS FOR CONSUMERS
IMPROVES VIDEO CREATIVE	**Mezzanine file support** A high-quality media file that can be used to transcode (i.e. convert) the video to any desired quality - by SSAI servers as well as 3rd party ad servers.	• High quality video advertising experiences.
	SSAI features In addition to the mezzanine file support, there is a separation of code from the media file, directions for handling headers, tracking beacons, ad requests, etc.	
	"Ready to serve file" support (low/med/high resolution media files) 3 pre-defined quality media files that can be used for adaptive streaming. The video player will choose the most appropriate file depending on the viewer's streaming environment and will seamlessly transition between video files if the environment or streaming capabilities change during video playback.	• Eliminates any lag in the video. • Increased opportunity to stream in bad service areas.
	Video ad interactivity handled via SIMID (Secure Interactive Media Interface Definition), replacing VPAID (which is being deprecated) Better support for interactivity with a separate node that will help ensure safe execution.	• More opportunities to engage with interactive ads.
	VAST interactive templates Standardized interactive experiences that can be driven by data in a VAST template instead of executable code. The first example of an interactive template in VAST 4.x is the "end card."	
	Support for audio ads DAAST now merged into VAST. VAST 4.1 also introduced hybrid audio/video ad support.	• More creative audio advertising experiences.
	Closed captioning (for ads) Enables closed captioning for ads by standardizing the delivery of closed captioning files.	• Better accessability support.

BETTER AD DELIVERY AND MORE EFFICIENT TRANSACTIONS	UPDATES AND FEATURES	WHY IT MATTERS FOR CONSUMERS
	Support for ad cloud hosted video creative Brands can host their creative centrally, in an ad cloud, and share VAST 4.x tags that can then be wrapped by upstream ad servers and/or DSPs.	• Better quality ads that match the quality of the content being viewed.
	New error codes	• Fewer video ad errors and improved ad experiences over time.
	Ad request (macro-based) spec Ability to send client context via macros including player capabilities (means that the VAST response can be built to match the player's capabilities). Standardized server to server communication.	
	Separation of media file from interactive code/verification code VAST 4.x has separate nodes for the media file (i.e. MP4), the verification code, and the interactive code.	
	Limit on wrappers Limit the number of wrappers allowed to 5.	• Quicker ad load times.
	Ad Categories Separate node for ad categories. Well defined registries for advertising assets.	• The viewer will experience a variety of advertisements. • Age will be considered to protect children from exposure to inappropriate ads.

STREAMLINES AND IMPROVES MEASUREMENT AND VERIFICATION EFFORTS	UPDATES AND FEATURES	WHY IT MATTERS FOR CONSUMERS
	Verification & viewability support via Open Measurement Better support for verification (separate node, viewability & verification beacons). Previously, running measurement code was possible only through Video Player-Ad Interface Definition (VPAID) media files, which would unnecessarily obscure and delay the actual creative content. This also meant that verification vendors became responsible for video playback, rather than simply acting as an observer. The only alternative to this setup was for each vendor to maintain a number of bespoke solutions with individual players.	• Faster page loads due to simplified architecture.
	Universal AdId Mechanism to clearly identify video assets, using standard ad registries (like Ad-ID).	• Delivery of more relevant ads.

Definitions

- **Adaptive Bitrate Streaming:** A technical process that adjusts the quality of a video delivered to the client/video player of a connected device based on changing network conditions, video buffer status, and CPU utilization to ensure the best possible viewer experience
- **Beacon:** A tiny image, referenced by a line of HTML or a block of JavaScript code, embedded into a website or third-party ad server, used as a tracking pixel to monitor user activity
- **Header:** An HTTP mechanism that allows the client (i.e. devices) and the server to pass information
- **iFrame:** An HTML capability that allows publishers and advertisers to avoid disruptive behavior and potential security risks when serving ads and other third-party content in line with the page
- **Macro:** A "variable" string that gets replaced with actual values by the publisher/video played
- **Mezzanine file:** In video production, the mezzanine file is the high-quality source file from which other versions at different quality levels can be transcoded
- **Node:** A processing location
- **Server-Side Ad Insertion (SSAI):** This is the process of stitching video content and ads together on the server-side level rather than on the browser level (client-side ad insertion)
- **Wrapper:** a bit of code that wraps around an object providing additional functionality

About Us

iab.

The Interactive Advertising Bureau (IAB) empowers the media and marketing industries to thrive in the digital economy. Its membership is comprised of more than 650 leading media companies, brands, and the technology firms responsible for selling, delivering, and optimizing digital ad marketing campaigns. The trade group fields critical research on interactive advertising, while also educating brands, agencies, and the wider business community on the importance of digital marketing. In affiliation with the IAB Tech Lab, IAB develops technical standards and solutions. IAB is committed to professional development and elevating the knowledge, skills, expertise, and diversity of the workforce across the industry. Through the work of its public policy office in Washington, D.C., the trade association advocates for its members and promotes the value of the interactive advertising industry to legislators and policymakers. Founded in 1996, IAB is headquartered in New York City.

iab. DIGITAL VIDEO CENTER OF EXCELLENCE

Serving as the go-to for all things video, the IAB Digital Video Center of Excellence simplifies the video supply chain and provides best practices and education for brands, agencies, and media companies to drive continued growth through the evolving convergence of television and digital video. A dedicated unit within IAB, the center is devoted to the advancement of the digital video medium in the global marketplace. Its board and members reflect a dynamic mix of top television brands, original digital video content producers, prominent cross-media publishers, digital video technology leaders, and innovative start-ups spanning across the digital video programming, marketing, and distribution spectrum. Together with its member companies and in cooperation with the IAB Tech Lab, the center helps produce technical standards, common measurement, metrics, research, and thought leadership critical to the field, while identifying emergent best practices in the fast-growing arena of digital video. Working with the IAB Public Policy office, the Digital Video Center also advocates to legislators on behalf of the burgeoning medium. Established in November 2014, the Digital Video Center is based at the IAB New York City headquarters, and membership is open to all IAB member companies.

For more information on how to get involved, please contact digitalvideocenter@iab.com.

iab. TECH LAB

The IAB Technology Laboratory (Tech Lab) is a non-profit consortium that engages a member community globally to develop foundational technology and standards that enable growth and trust in the digital media ecosystem. Comprised of digital publishers, ad technology firms, agencies, marketers, and other member companies, IAB Tech Lab focuses on solutions for brand safety and ad fraud; identity, data, and consumer privacy; ad experiences and measurement; and programmatic effectiveness. Its work includes the OpenRTB real-time bidding protocol, ads.txt anti-fraud specification, Open Measurement SDK for viewability and verification, VAST video specification, and DigiTrust identity service. Board members include CBS Interactive, ConsenSys, ExtremeReach, Facebook, Google, GroupM, GumGum, Hearst Digital Media, Index Exchange, Integral Ad Science, LinkedIn, LiveRamp, MediaMath, Microsoft, Neustar, OpenX, Oracle Data Cloud, Pandora, PubMatic, Quantcast, Rakuten Marketing, SpotX, Tapad, The Trade Desk, TikTok Ads, Twitter, Verizon Media, Xandr, and Yahoo! Japan. Established in 2014, the IAB Tech Lab is headquartered in New York City.