Troubleshooting Video Ads:

Debugging Broken Creatives Using VAST Error Codes

Oct 31, 2017

Rubicon Project, InMobi & Centro

Agenda

- Amit Shetty - IAB TechLab - Kickoff
- John Peragine - Intro & Main Issues at Hand
- Adam Piskin & John Peragine - Rubicon Project
  - VAST Troubleshooting Matrix
  - Top VAST Video Issues
  - Future of the Troubleshooting Matrix
- Ian Trider - Centro
  - Recommended Important Principles & Concepts
  - Recommended SSP Best Practices
  - Recommended DSP Best Practices
  - Recommended Video Player Best Practices
- Kayla Wilson - InMobi
  - Info Passed in the Bid Request Should be Read and Honored
  - Standardization of Bid Requests Parameters
- How To Improve Moving Forward

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IAB Tech Lab

- Technical standards
- Dev tools & code
- Product certification

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Tools & Best Practices Working Group

Working Group info : http://bit.ly/VideoBestPracticesNToolsGroup

VAST Error Code Troubleshooting Matrix : http://bit.ly/VASTErrorCodesMatrix

Please contact amit@iabtechlab.com to join the working group

Continue the conversation during the IAB Video Symposium townhall :
It Takes a Village: How do we make automation in video buying and selling work while maintaining a great user experience?
https://www.iab.com/iab-video-symposium/

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Broken VAST

Creatives & Troubleshooting

Adam Piskin & John Peragine
The Rubicon Project

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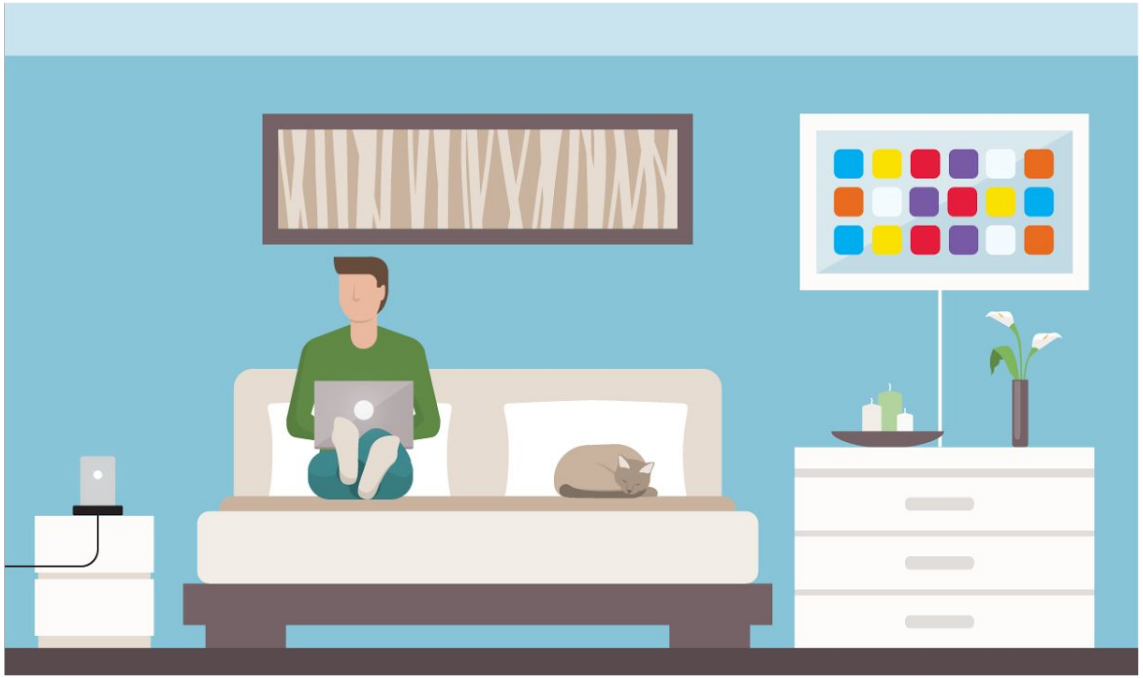
Video VAST creative



Video Ads should play 100% of the time but the reality is they don't which results in poor user experience and revenue loss.

This co-op was formed by people who care and want to solve this industry problem for good.

We need more people to join the working group to help.

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Main Issues at Hand

WHO IS RESPONSIBLE

VAST Error Codes are currently vague and not easily actionable and accountable

STANDARDIZATION GUIDELINE

Lack of standard Video Spec leaves room for many variations and hard to police

BID REQUEST GUIDELINES

No mandatory parameters passed in Bid Request that would ensure proper transaction, leaving DSPs unsure of what's required

GOAL: Use the working group to jointly determine future guidelines for a Video Spec and recommended Bid Request fields to eliminate any transactional inefficiencies

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VAST Error Code Troubleshooting Matrix

Error Code	Fatal?	Definition	Possible Causes
100	Yes	XML parsing error.	VAST supplied in adm is not a valid XML document. URL supplied in nurl does not resolve to a valid XML document. Nurl only: Server did not respond with VAST, or at all when player called the nurl. Perhaps a CORS issue

101	Yes	VAST schema validation error	The VAST validates as XML, but does not validate per the VAST schema (i.e. there are missing mandatory elements or attributes, or combinations of elements/attributes that are not permissible).
			Some possible reasons for invalidity:
			`InLine and Wrapper both present.`
			`AdTagURI missing in Wrapper element.`
			`Duration missing.`
			`Missing Ad node or MediaFile node.`
			`Offset attribute on Progress event is missing or not a valid value.`

102	Yes	VAST version of response not supported.	Bidder did not respect the VAST version(s) listed in the bid request. Exchange is sending wrong VAST version(s) in bid request. VAST does not contain version (this could also be considered a schema validation issue)

IAB VAST Error Code Guide

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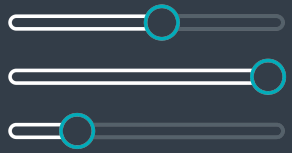
Top Video Vast Issues

011011110
000011011
001000001
010010010

INCOMPATIBLE CREATIVE [ERROR CODE]

WRAPPER OVERLOAD



LARGE FILE SIZE

INCOMPATIBLE MEDIA FILE FORMATS

TIME OUTS

DESKTOP CREATIVES REPURPOSED FOR MOBILE

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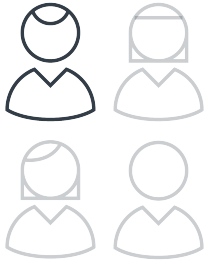
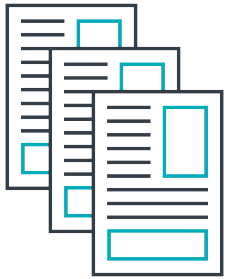
Future of the troubleshooting matrix

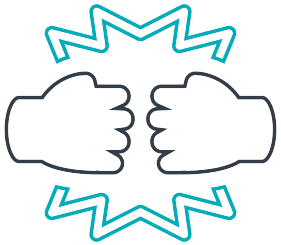


WHO IS RESPONSIBLE



LIMIT DUPLICATED EFFORTS

ABIDE BY GUIDELINES



FIX BROKEN CREATIVES

IMPROVE VIDEO CREATIVE INSIGHTS

Recommendations and Best Practices

Ian Trider
Centro

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Recommended Important Principles

SSPS SHOULD PROVIDE CLEAR REQUIREMENTS TO DSPS

DSPS TO RESPECT SSPS REQUIREMENTS

SERVE ADS WITH INTENT OF 100% FILL

BID ON ADS WITH MATCHING REQUIREMENTS

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Recommended SSP Best Practices

SSPS SHOULD MANDATE FOLLOWING FIELDS ARE SENT AND RESPECTED BY DSP PARTNERS:

video.mimes
video.minduration
video.maxduration
video.protocols
video.linearity
video.minbitrate
video.maxbitrate
video.api

SSPs should collect error rate statistics by ad. SSPs should act on this information by automatically blocking (or severely throttling ability to win auctions) ads that are observed to have an error rate above an acceptable threshold.

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Recommended DSP Best Practices

NO MATCH? NO BID!

DSPS TO CARRY OUT SSPS REQUIREMENTS

Scan VAST

- Record details, use during bidding

At least one MediaFile must match to bid

LOWEST COMMON DENOMINATOR SPECS (99% OF BID REQUESTS)

VAST 2

At least one MediaFile is an MP4

non-VPAID MedaFile may be included in ads that use VPAID

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Recommended Video Player Best Practices

VIDEO PLAYERS SHOULD

Gather the list of MediaFiles

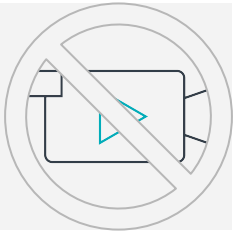
Eliminate any with a mime type that is not supported

Eliminate any with dimensions that are not supported

Estimate the bitrate of the device (or make a reasonable guess based on device type/connection type if not possible)

Select the highest quality remaining asset less than the previously determined bitrate

VIDEO PLAYERS SHOULD NOT



Select the first MediaFile regardless of compatibility

Select the first MediaFile with a compatible mime type (unless it indeed is the best choice per above)

Ignore non-VPAID options if there are VPAID MediaFile(s) but they are not compatible with the player

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What is needed?

Standards

Kayla Wilson
InMobi

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Info passed in the bid request should be read and honored

Multiple Spec Variations

DSP's work with 20-40+ SSP's that all have their unique variations of the IAB Video spec

Inconsistent Errors

Variations of multiple error codes across partners makes it hard to properly classify and standardize

SLOW TO FIX ERRORS

The creative usually just gets blocked, rather than fixed

STANDARDIZATION

A standard SSP spec would be one way to streamline, or business best practices outlined by an IAB working group

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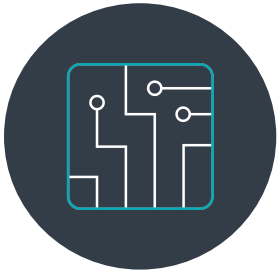
Standardization of Bid Requests Parameters

Business rules need to be established for the fields SSP's need to pass in the bid request for DSP's to honor



Extensions allow for innovation that can become a future standard

(ie: *ViewabilityVendors, Vertical, Rewarded*)

An IAB Compliance program for video guidelines could help to reduce fragmentation and reduce blocked video creatives

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How to improve moving forward?

WORKING GROUP

What can the Industry do?

VAST 4.0 Improvements

Troubleshooting Matrix Improvements

Updated Specs & Fields

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