



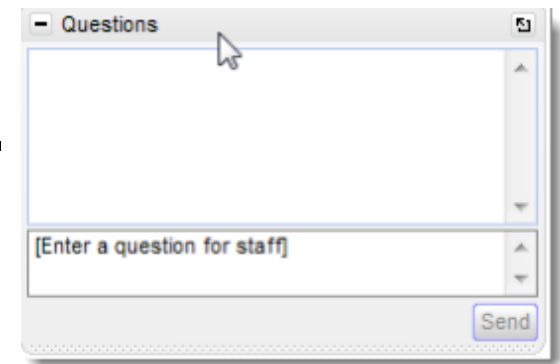
IAB Video: What's New in the IAB Digital Video Ad Format Guidelines (DVAFG).

Webinar

February 12, 2016

Welcome!

- › Today's presentation is being recorded.
- › We have a big audience, so everyone is muted. Type your questions and comments in the Questions panel.



- › Share your notes!



IAB Digital Media Certification Program



Benefits of IAB Certification Program

With employees holding the IAB Certification credential, teams will establish itself as an absolute trusted advisor and market leader in the digital advertising industry in both National and Local markets.

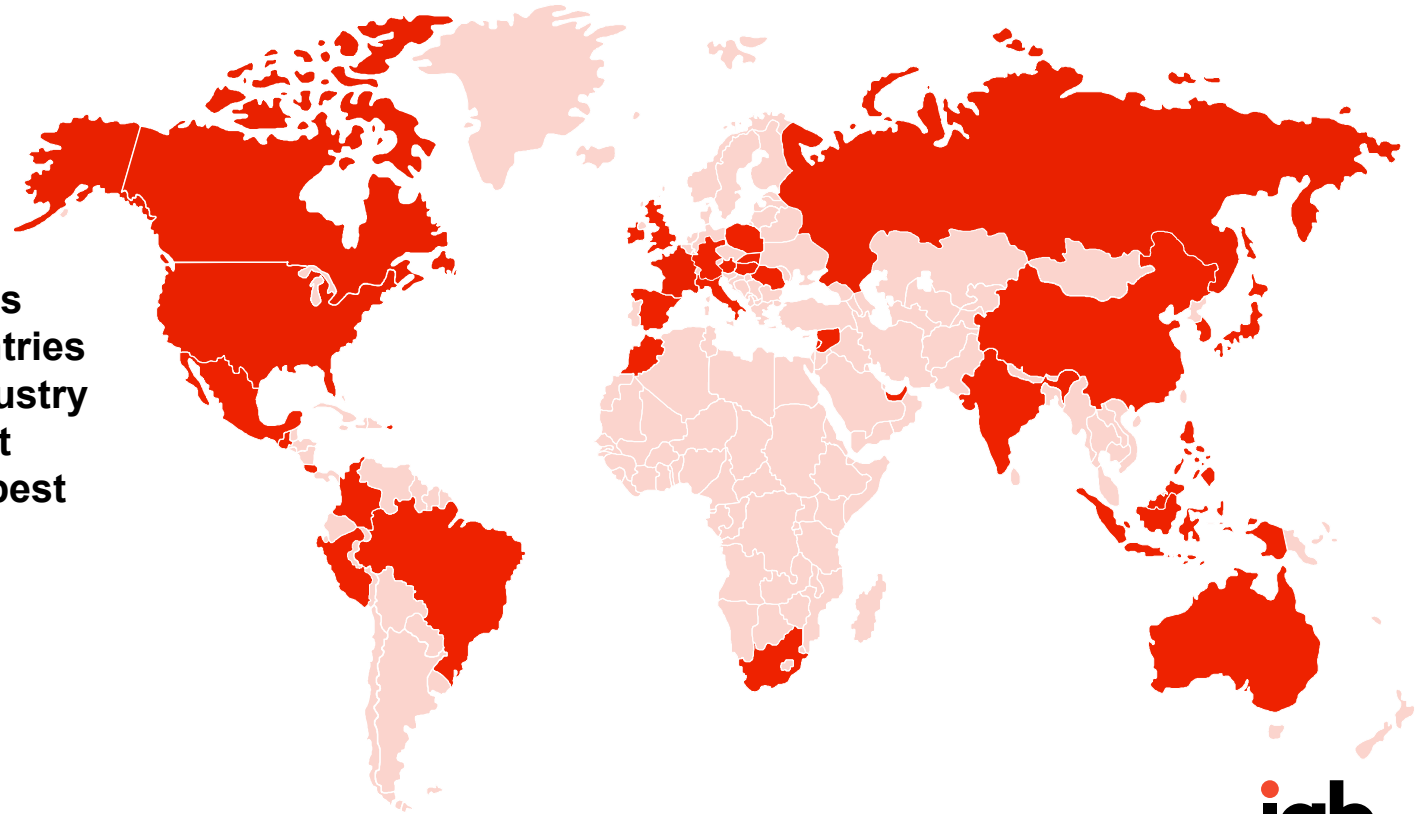
Benefits of IAB Certification Include:

- Provide a benchmark for digital advertising knowledge across the organization
- Increase retention of top talent within organization
- Increase sales effectiveness
- Deepen trust with clients
- Serve as catalyst for promotion of industry and organizational standards
- Champion ethical industry practice globally



With over 8,500 IAB Certification participants in 37 Countries The Program Is Growing Globally

The IAB Certification is recognized in 37 countries as the only global industry benchmark for subject matter expertise and best practices.



Learn Why 300+ Leading Media Teams Are IAB Certified Today!

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MEDIA



CBS Interactive

Simpli.fi

YAHOO!

Triad Retail
Media

The New York Times

iab.

Introductions – IAB Team



Amit Shetty
Director, Video & Audio



Shailley Singh
Director, Mobile & Ad Products



Luke Lockett
Contract Project Manager



Katie Stroud
Contract Writer

IAB Tech Lab

- **Technical standards**
- **Reference code**
- **Tools**



Our Guest Speaker

Ryan Vega
Content Operations Specialist
Hulu



Quality

Operational
Efficiency

Cross-
Platform

Next Steps

2008: 640x480 was the preferred resolution

2008 Digital Video

640x480



4:3 aspect ratio

Future Digital Video

4K Screen (3840x2160)



16:9 aspect ratio

Wikipedia “List of resolutions” lists 167 resolutions (for computers)

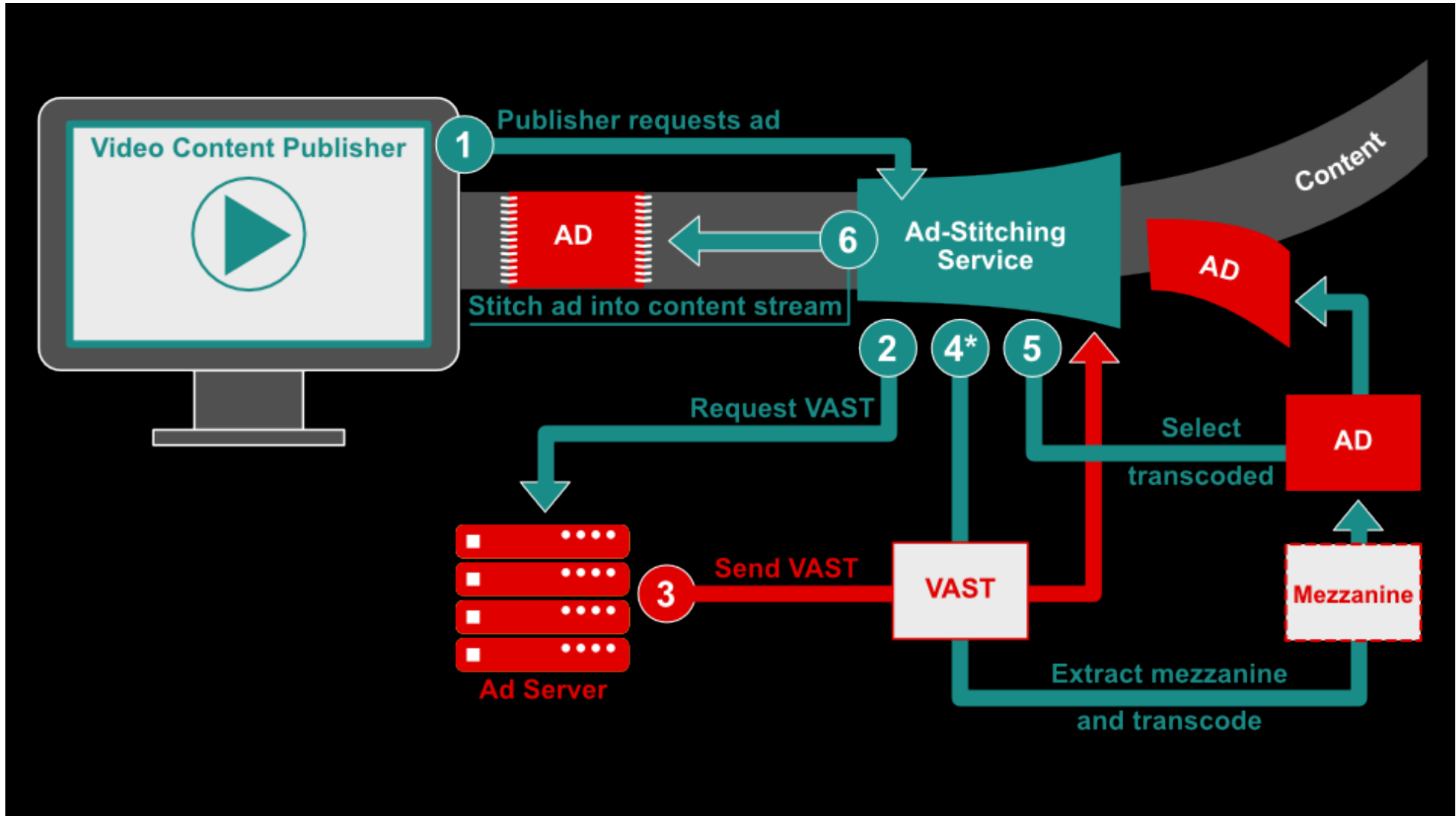
Computer and handheld screens							
Standard	W (px)	H (px)	SAR	DAR	PAR	Pixels	
Microvision	16 ×	16	1:1	1:1	1:1	256	
Timex Datalink USB^{[1][2]}	42 ×	11	42:11	1:1	5:9	462	
PocketStation	32 ×	32	1:1	1:1	1:1	1,024	
Etch A Sketch Animator	40 ×	30	4:3	4:3	1:1	1,200	
Epson RC-20^[3]	42 ×	32	21:16	1:1	0.762	1,344	
GameKing I (GM-218), VMU	48 ×	32	3:2	3:2	1:1	1,536	
Etch A Sketch Animator 2000	60 ×	40	3:2	3:2	1:1	2,400	
Hartung Game Master	64 ×	64	1:1	1:1	1:1	4,096	
Field Technology CxMP Ltd. Smart Watch^[2]	72 ×	64	9:8	1:1	0.889	4,608	
Montblanc e-Strap^[4]	128 ×	36	32:9	1:1	0.281	4,608	
Epoch Game Pocket Computer	75 ×	64	75:64	1:1	1:1.171875	4,800	
Nokia 3210, and many other early Nokia Phones: List of Nokia products	84 ×	48	7:4	2:1	1.143	4,032	

...and 24 for digital television

Digital television standards			
Standard	Resolution (dots x lines)	DAR (H:V)	Pixels
PixelVision	120 x 90	4:3	10,800
Video CD	352 x 240 (NTSC)	4:3	84,480
	352 x 288 (PAL)		101,376
UMD	480 x 272	~16:9 (30:17)	130,560
China Video Disc	352 x 480 (NTSC)	4:3 or 16:9	168,960
	352 x 576 (PAL)		202,725
SVCD	480 x 480 (NTSC)	4:3 or 16:9	230,400
	480 x 576 (PAL)		276,480
SDTV 480i, EDTV 480p, SMPTE 293M	640 x 480	4:3 or 16:9 or 3:2	307,200
	704 x 480		337,920
	720 x 480		345,600
	852 x 480		408,960

Quality control has been a challenge

Enter server-side ad insertion (SSAI)



What's a mezzanine?

VAST TAG

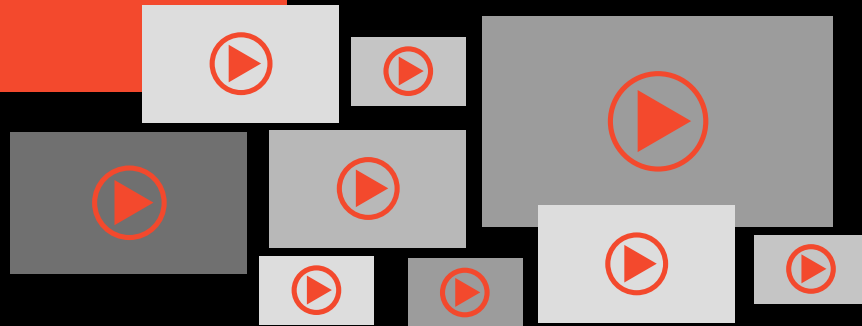
RAW ASSET



Mezzanine File



High-quality video
file used to
transcode other
versions



Video Setting	Specification	Notes
Bit Rate	50Mbps VBR or 15-30 CBR	50 Mb for original source (preferred)
Aspect Ratio	16:9 (HD) or 4:3 (SD)	16:9 is preferred "letter-boxing" (black bars) should be avoided
Resolution (1x1 pixels)	For aspect ratio 16:9 <ul style="list-style-type: none"> • HD = 1920x1080 or 1280x720 For aspect ratio 4:3 <ul style="list-style-type: none"> • HD = 1440x1080 	No burned in pillar boxing or letterboxing Future support for 4k
Color Space	4:2:0 or 4:2:2 YUV	
Frame rate	Depending on region, use one of the following frame rates: <ul style="list-style-type: none"> • PAL (25 fps) • 24p (23.98 fps) • NTSC Video (29.97 fps) 	Native frame rate preferred
Codec	<ul style="list-style-type: none"> • MPEG2, H.264/AAC • H.264 or Apple ProRes • H.265 /HEVC 	Apple ProRes preferred but may exceed file size threshold for some vendors HEVC may not yet be widely accepted

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Next Steps

2008: "...this document does not specifically address [full-screen and live experiences] because of the high level of customization between publishers."

What files should be submitted?

Then...

At least one file that meets the minimum requirements, but if your file needs to operate in a system that might need a different codec or resolution, then provide additional files for that system. We can't really tell you ahead of time what systems your ad will play in, but we can provide some data that will help you determine what additional files you might need. If you are targeting a mobile audience then we'll need a file specific to that medium. Actually, we'll need several additional files because native mobile players come in a variety of screen sizes, which calls for a variety of ad resolutions if you want the ad to actually look good when it's played. When developing the ad delivery tag, special provisions will be needed to ensure that the right ad is selected to play in the appropriate environment. For each file, we need to identify the correct MIME type. But you could always just provide the one file that meets the minimum requirements. We'll at least be able to play that one, but it might be distorted in some players or not play at all in others. We can always scale the ad to fit the players aspect ratio or we can use letter-boxing, a method that adds black bars to the sides and/or top so the ad plays in it's appropriate aspect ratio without being stretched, but that does mean that the ad will play in a smaller space than the space in which the content plays. In any case, there are a lot of options, but 640x480 is the preferred aspect ratio and then we can go from there to determine what other files you might need.

...Now

3 files: high, medium, low

Resolution	Low resolution	Medium resolution (Standard Definition)	High resolution (High Definition)
<i>16:9 Aspect Ratio</i>	360p or less Typical resolution: <ul style="list-style-type: none"> • 640x360 	Greater than 360p and up to 576p Typical resolutions are: <ul style="list-style-type: none"> • 854x480 (ATSC) • 1024x576 for (PAL) 	Greater than 576p and up to 1080p* Typical resolutions are: <ul style="list-style-type: none"> • 1280x720 for 720p • 1920x1080 for 1080p
<i>4:3 Aspect Ratio</i>	480p or less Typical resolution: <ul style="list-style-type: none"> • 640x480 	Greater than 480p and up to 576p Typical resolution <ul style="list-style-type: none"> • 640x480 (ATSC) • 768x576 (PAL) 	Not applicable

Resolution	Low resolution	Medium resolution (Standard Definition)	High resolution (High Definition)
<i>16:9 Aspect Ratio</i>	360p or less	Greater than 360p and up to 576p	Greater than 576p and up to 1080p*
	Typical resolution: • 640x360	Typical resolutions are: • 854x480 (ATSC) • 1024x576 for (PAL)	Typical reso • 1280x720 • 1920x1080
<i>4:3 Aspect Ratio</i>	480p or less	Greater than 480p and up to 576p	
	Typical resolution: • 640x480	Typical resolution • 640x480 (ATSC) • 768x576 (PAL)	Not applicable

Range of resolution instead of rigid specs

Resolution	Low resolution	Medium resolution (Standard Definition)	High resolution
<i>16:9 Aspect Ratio</i>	360p or less Typical resolution: • 640x360	Greater than 360p and up to 576p Typical resolutions are: • 854x480 (ATSC) • 1024x576 for (PAL)	Greater than 576p and up to 1080p Typical resolutions are: • 1280x720 for 720p • 1920x1080 for 1080p
<i>4:3 Aspect Ratio</i>	480p or less Typical resolution: • 640x480	Greater than 480p and up to 576p Typical resolution • 640x480 (ATSC) • 768x576 (PAL)	Not applicable

Examples of typical resolutions in range

Resolution	Low resolution	Medium resolution (Standard Definition)	High resolution (High Definition)
<i>16:9 Aspect Ratio</i>	360p or less Typical resolution: • 640x360	Greater than 360p and up to 576p Typical resolutions are: • 800x480 • 1024x576	Greater than 576p and up to 1080p* Typical resolutions are: • 1280x720 for 720p • 1920x1080 for 1080p
<i>4:3 Aspect Ratio</i>	480p or less Typical resolution: • 640x480	Greater than 480p and up to 576p Typical resolution • 640x480 (ATSC) • 768x576 (PAL)	<div style="border: 2px solid red; border-radius: 15px; padding: 10px; text-align: center;"> Not applicable </div>


4:3 not applicable at high resolutions (use 16:9)

How do we serve 3 files?

VAST!

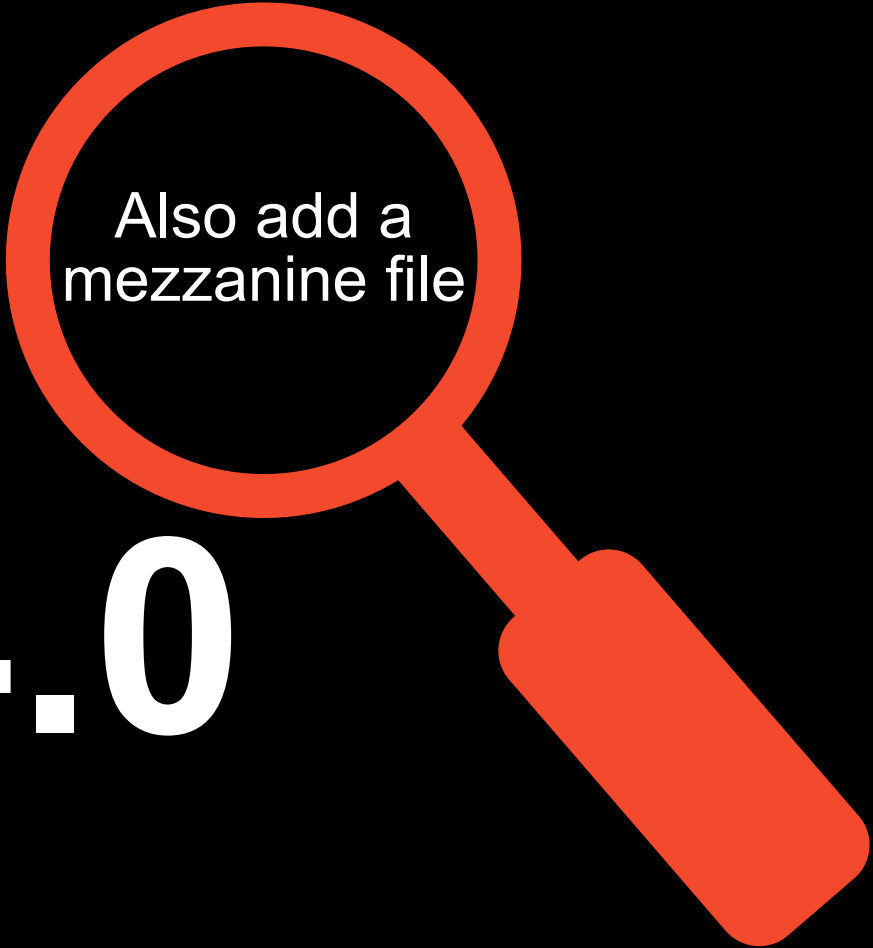
Video Ad Serving Template

VAST 4.0



Required
3 files
high, med, low

VAST 4.0



Also add a
mezzanine file

Quality

Operational
Efficiency

Cross-
Platform

Next Steps

2008:

*“Publishers may scale the
submission to fit their player”*

MPEG-4 (.mp4) is supported almost everywhere.

- ✓ H.264 codec most widely supported
- ✓ Baseline profile works for most bandwidth
- ✓ AAC audio plays everywhere (PCM doesn't work in Flash players)
- ✓ WebM, VP8, etc. are formats that may be provided in addition to MP4

Gone in a *Flash*

(No more .flv)

Now what?

MP4 + VPAID

VPAID

Video Player-Ad Interface Definition
(Use for tracking and interactions)



VPAID



Quality

Operational
Efficiency

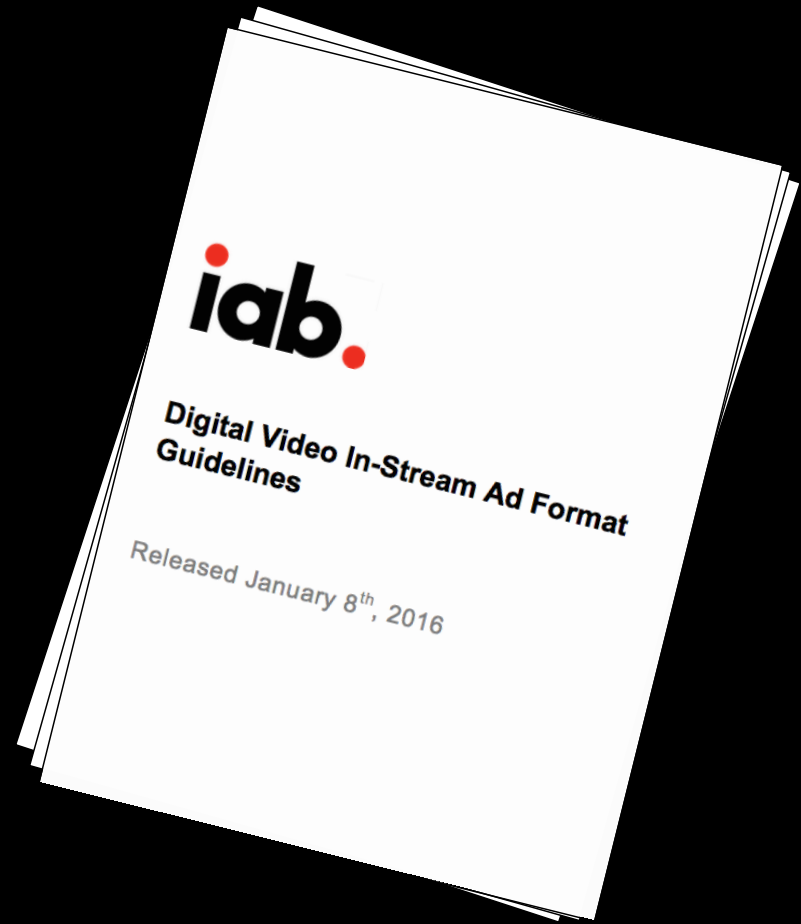
Cross-
Platform

Next Steps

2016:
Moving guidelines into mainstream

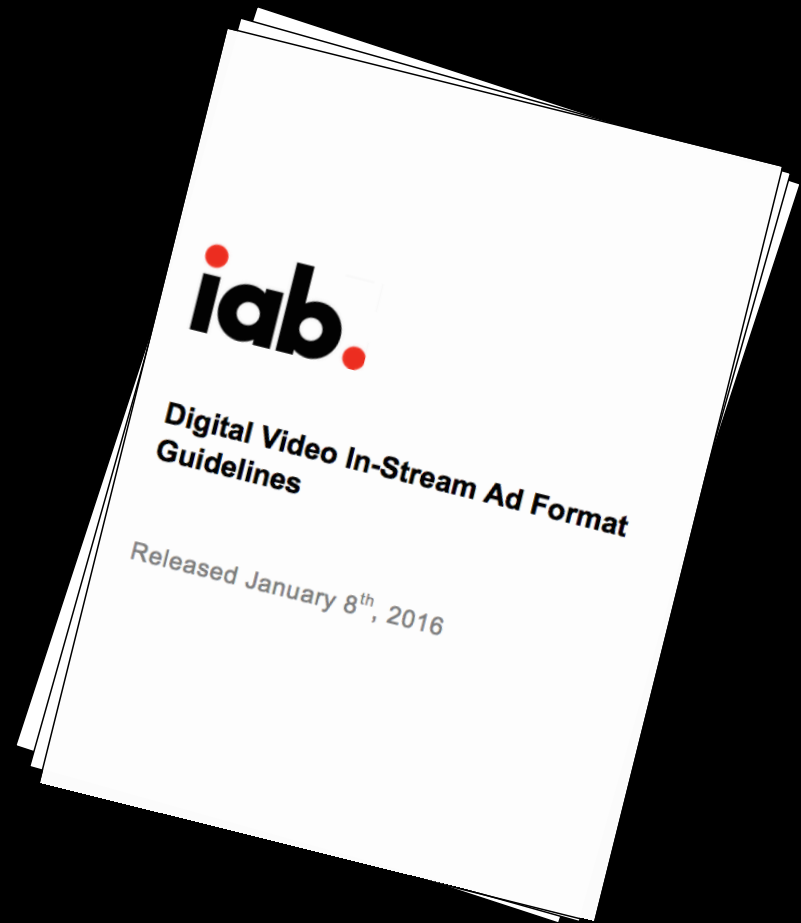
Ad Developers

Start with the Guidelines



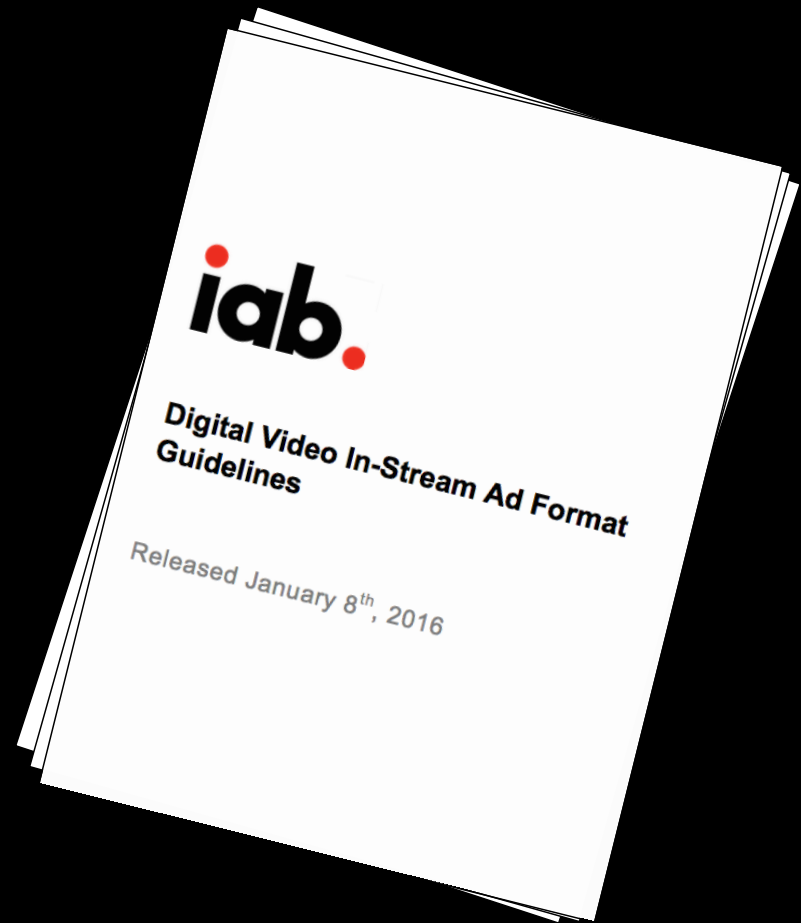
Publishers

Point to the Guidelines
and build specs from there



Ad Tech Vendors

Ensure video ads meet the
Guidelines at a minimum



In my experience...

Ryan Vega
Content Operations Specialist
Hulu



Resources

Link to Digital Video Ad Format Guidelines

http://www.iab.com/wp-content/uploads/2016/01/DVAFG_2015-01-08.pdf

Link to VAST 4.0 (4.01 update to be posted to this same link when released)

http://www.iab.com/wp-content/uploads/2016/01/VAST_4-0_2016-01-21.pdf

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Thank You



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