

Creative Specifications

Table of Contents

Specifications by Creative Type	3
Display	3
General Recommendations	3
Supported Display Ad Sizes	4
DOOH	6
Broadsign	7
Ströer	7
SSP1	7
Hivestack	8
Expandables	8
Recommended Optimal Ad Sizes and Expansion Directions	9
App-Install Ads	9
HTML5	10
File Sizes	11
File Packaging	11
Click Tag Parameters	12
Audio	13
Publisher-Specific Specifications	13
Companion Banner Specifications	14
Audio Creatives Best Practices	15
CTV	15
General Requirements and Guidelines	15
Publisher-Specific CTV Creative Specifications	16
Media File Requirements	16
Troubleshooting and Go-Live Check	17
CTV Creatives Best Practices	18
Mobile Rich Media	19
Generating MRAID Tags	19
Caveats to Using MRAID Creatives	20
Mobile	20
Video	20
By Channel	21
By Resolution	21
Video Creatives Hosted by The Trade Desk	21
Third-Party Hosted Video	23
Vertical Video	24
Video Guidelines for the United Kingdom	25
Native	25
The Trade Desk Guidelines	26
Guidelines by SSP	27

Specifications by Creative Type



IMPORTANT

To ensure that your creative works properly and is accepted by supply-side platforms (SSPs), make sure your creative meets the following creative specifications based on its type.

Specifications for Display Creatives

Display ads can include any of the following creative types:

- Image files
- Third-party HTML or JavaScript ad tags (from supported ad servers)
- [HTML5 creatives \[10\]](#) (through third-party ad servers or hosted by The Trade Desk)



IMPORTANT

When using the PG Publisher-Hosted Creative Solution, you must upload a 1x2 fully transparent static PNG creative pixel.

The following sections list general and optimal recommendations as well as ad size specifications that apply to display ads in The Trade Desk platform.

General Recommendations


Scale across multiple inventory sources using the following display creative recommendations.



NOTE

While the following requirements enable you to serve across most inventory sources, specifications may still vary by publisher and SSP.

Requirement	Description
File type	GIF, JPEG, or PNG
File size	150 KB or smaller (for both first-party ads and third-party ads)

Requirement	Description
Images	Creative images must be clear, recognizable, and relevant and must occupy the entire space of the image size you've chosen.
	<div>  IMPORTANT According to the Coalition for Better Ads (CBA) guidelines, in the United Kingdom, display ads with static or animated ad messages or images must not take up more than 20% of the video player or appear in the middle third of the video player. </div>
Text	Text appearing in the ad must be legible.
Orientation	Creatives cannot appear sideways or upside down.
Segmentation	Creatives cannot be segmented, contain multiple copies of themselves within the ad, or otherwise appear to be more than one ad.
Background color	Creatives with partially black or white backgrounds must include a visible border of a contrasting color to the majority background color of the ad.
Click action	When the user clicks a creative, it must open a new page.
Animation limit	Animated ads are restricted to a maximum of 15 seconds of looping, after which they must remain static.
In-banner	Video ads must include play, pause, mute, and unmute controls.
Click-to-start video	No length limit, but must navigate to a landing page upon completion.
Auto-start video	A 15-second limit applies, with no audio heard unless initiated by mouse-over; should be backstopped by static 300x250 that clicks through to landing page.

Supported Display Ad Sizes

The Trade Desk supports the following display ad sizes.



NOTE

Available inventory varies widely by ad exchange and region, so all supported formats may not be available in every case. If you have questions about ad sizes available in your region, contact your Account Manager.

Top Display

The following table lists the supported (optimal) top-display sizes for display creatives.

Type	Size
Wide skyscraper	160x600
Medium rectangle	300x250
Leaderboard	728x90
Half-page ad	300x600

Top Mobile

The following table lists the supported (optimal) top-display sizes for display creatives.

Type	Size
Tablet Interstitial Landscape	1024x768
Tablet Interstitial Portrait	768x1024
Large rectangle	336x280
Mobile Leaderboard	300x50, 320x50

GumGum

The following table lists the supported GumGum sizes for display creatives and indicates which are considered optimal.

Type	Size	Optimal?
GumGum display 160x600	6x6	
GumGum display 728x90	7x7	
GumGum display 300x250	8x8	
GumGum display 320x50	9x9	
GumGum in-image ad unit 728x90	10x10	Optimal
GumGum broadway ad unit	11x11	Optimal
GumGum in-image animated ad unit	12x12	Optimal
GumGum in-image ad unit	13x13	Optimal
GumGum pencil ad unit	14x14	Optimal
GumGum in-image canvas ad unit	16x16	Optimal
GumGum in-screen ad unit	17x17	Optimal
GumGum in-image embedded video ad unit	18x18	
GumGum in-screen embedded video ad unit	19x19	
GumGum in-screen half takeover ad unit	21x12	
GumGum in-image frame ad unit	22x22	
GumGum in-screen frame ad unit	23x23	
GumGum in-content video ad unit	24x24	

Other Formats

The following table lists other supported (optimal) sizes for display creatives.

Type	Size
Custom	1000x90
Custom	1020x250
Vertical banner	120x240
Button 2	120x60
Skyscraper	120x600
Button 1	120x90
Square button	125x125
Button	125x83
Custom	1280x100
Rectangle	180x150
Custom	180x500
Custom	226x850
230x230 square	230x230
Custom	230x600
Half banner	234x60
Vertical rectangle	240x400
Square pop-up	250x250
Custom	250x360
3:1 rectangle	300x100
Custom	300x1050
Custom	300x240
Video companion	300x60

Type	Size
Mobile custom	320x160
Custom	320x240
Custom	320x250
Mobile custom	320x320
Custom	320x480
Mobile custom	320x80
Custom	400x400
Custom	440x220
Custom	450x250
Custom	468x400
Full banner	468x60
Custom	480x250
Custom	480x280
Custom	480x320
Custom	480x80
Custom	519x225
Custom	544x225
Custom	550x340
Large Banner	551x289
Letvertise custom	555x111, 555x333
600x75 banner	600x75
Custom	640x480
Pop-under	720x300
Custom	720x480
Custom	750x200
Custom	800x250
Micro bar	88x31
Custom	930x180
Huge banner	960x325
Custom	960x60
Custom	970x250
Custom	970x66
Custom	970x90
Custom	975x300
Custom	980x120
Custom	980x150
Custom	980x240
Custom	980x250
Custom	980x400
Custom	980x90
Custom	994x250

Specifications for DOOH Creatives

Digital out of home (DOOH) is the term used for the ad environment made up of (primarily) outdoor digital ad placements. These include digital billboards and signs in a variety of locations including gas stations, airports, freeways, the sides of buildings, and so on. To request access, contact your Account Manager.

Here's what you need to know about the creative requirements and specifications for DOOH creatives:

- To learn about requirements and specifications, work with your Account Manager and SSP or publisher contact.

- Ensure that your creatives meet The Trade Desk [Ad Content Guidelines](#) and the guidelines of the media owners (publishers).
- Creatives can be hosted display, hosted video, third-party display, or third-party video. For details, see [Uploading Individual Creatives by Type](#).

If creatives are not hosted by The Trade Desk, available impression tracking depends on SSP or publisher support for your particular ad server.

- To help achieve reach, consider using the D6 ad format (1080x1920), which is consistently used across all DOOH SSPs.

The following sections provide information on the specifications for various SSPs. Many specifications vary by publisher. For more information, contact the publisher directly. Be sure to review specifications from each media owner for more specific recommendations, because they vary across different screen types.

See also:

- [Place Exchange](#)
- [VIOOH](#)
- [Vistar](#)

Broadsign

Broadsign recommends the following specifications for billboard or street-level creatives.

Requirement	Description
File format	PG or PNG
File size	40 KB (750 KB maximum)
Common ad dimensions by location	<ul style="list-style-type: none"> • Billboards: 1400x400, 840x400 • Transit centers, street panels: 1080x1920, 1920x1080

Broadsign recommends the following specifications for place-based creatives.

Requirement	Description
File format	
File size	
Common ad dimensions by location	<ul style="list-style-type: none"> • Train stations: 1280x720 • Airports: 720x1280 • Doctors' office: 1366x768

Ströer

Ströer recommends the following specifications.

Requirement	Description
File format	MP4 (no audio track)
Video length	5 to 30 seconds
Video frame rate	25, 29.97, or 30 frames per second (FPS)
Video encoding	H.264
Maximum bit rate	12 mbps

SSP1

SSP1 recommends the following specifications

Requirement	Description
File format	MP4

Requirement	Description
Video resolution	16:9 or 9:16
	1920x1080
	1080x192

Hivestack

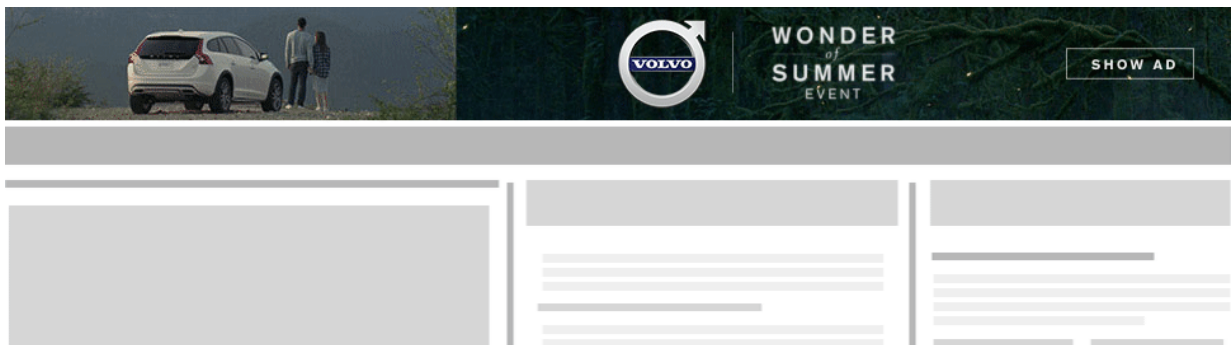
Hivestack recommends the following specifications.

File format	JPG, PNG, BMP, MP4, MOV, WEBM, FLV, AVI, and MPG
File size	Under 10 MB
Common ad dimensions	1920x1080
	560x160
	1080x1920
	1280x720
	1366x768

Specifications for Expandable Creatives

Expandables are a type of rich-media ad unit that start as normal base-size ads (for example, 300x250), but expand to a larger size when the user interacts with them. Expandables have been standardized so that they can run on a large number of sites.

Here's an image that shows you how expandable creatives work:



NOTE

While the following requirements enable you to serve across most inventory sources, specifications may still vary by publisher and SSP.

Here's what you need to know about expandable creatives:

- The Trade Desk does not directly host expandable creatives, so they must be uploaded from third-party tags.
- When uploading an expandable to the platform, you can specify the directions in which you would like it to expand.

The following directions are supported:

- Up

- Down
- Left
- Right
- Up and left
- Up and right
- Down and left
- Down and right
- Diagonal (all directions)
- Lightbox (center and brief page takeover while user hovers)
- When uploading an expandable creative tag, select the directions in which the creative can expand. This is an OR statement. For example, by selecting **Left** and **Right**, you are asserting that your expandable has the capability to expand Left or Right depending on the page context. This would be appropriate for a 160x600 that could potentially appear in a left or right rail. Work closely with your expandable ad server to understand your ad's capabilities.
- Any [supported display ad \[3\]](#) can be declared as an expandable creative, but inventory varies based on size and direction.

Recommended Optimal Ad Sizes and Expansion Directions

The following table lists the optimal sizes and directions recommended for expandable creatives for maximum availability.

Original Ad Size	Expansion Direction	Expanded Ad Size
300x250	Left	500x250
728x90	Down	728x270
160x600	Left	300x600
300x600	Left	560x600

Specifications for App-Install Ads Creatives

App-install ads enable users to install your app directly from your ad.



IMPORTANT

Do not include a Store Name asset type in any app-install ad. Google has a bug that rejects any ad with a Store Name asset type.

The following table lists The Trade Desk and Google AdX specifications for app-install ads.

Feature	Description	The Trade Desk Specification	Google AdX Specification
Main image	The large main image to be used in the ad.	1200x627, (1.91:1 aspect ratio)	1200x627
Icon	The app icon to be displayed in the ad.	200x200 (1:1 aspect ratio)	128x128
Logo	The advertiser's logo to include in the ad, either overlaid over the main image or shown separately from the main image.	200x200 (1:1 aspect ratio)	N/A
Short title	The title or headline for the native ad—should be optimized for mobile.	25 characters maximum	25 characters maximum
Long title	The title or headline for the native ad—should be optimized for desktop.	90 characters maximum	N/A
Short description	Additional text typically displayed below the title—should be optimized for mobile.	90 characters maximum	90 characters maximum
Long description	Additional text typically displayed below the title—should be optimized for desktop.	140 characters maximum	N/A
Sponsor (brand)	The name of the advertiser running the native ad.	25 characters maximum	25 characters
Call to action	Text, such as <i>Learn More</i> or <i>Buy Now</i> , that likely appears in a button near the image assets.	15 characters maximum	15 characters
Price	The price of the product being linked to from the native ad.	15 characters	(Optional) 15 characters
Rating	The rating of the product—most often, an app store rating—typically be displayed as stars on the native ad.	Between 0 and 5 stars	(Optional) Between 0 and 5 stars

See also [Native \[25\]](#).

Specifications for HTML5 Creatives

HTML5 creatives are a type of display creative with their own specific recommendations, sourced from the [IAB Display Advertising Guidelines](#). HTML5 creatives are displayed as a full HTML page in an iFrame.

Here's what you need to know about HTML5 creatives:

- You may not use [dynamic](#) or [expandable](#) creatives as HTML5 creatives.
- Different browsers have different subsets of HTML5 features enabled. Your creative might fail on a browser if it attempts to use a feature that is not enabled in the browser. It is your responsibility to ensure that your creative “gracefully degrades” in case the browser it is viewed on doesn’t support the features it uses.
- The IAB recommends adding the dimensions of your creative to your primary HTML document in a meta tag inside of the `<head>` section of your document. Here's an example, in which you'd replace the `width` and `height` values with the actual dimensions of your creative:

```
<meta name="ad.size" content="width=300,height=250" />
```

If an `ad.size` meta tag is not provided in the primary HTML document, you are prompted to enter dimensions when you submit the creative.

- The Trade Desk Hosted HTML5 system requires that you upload a static backup image. This image is used to display the ad if a user has JavaScript disabled.
- [Commonly used JavaScript and CSS libraries](#) (such as jQuery) do not need to be included with the creative.
- Including [image sprites](#) instead of multiple images decreases the number of file requests made by your creative and increases its performance.
- Avoid the use of video tags in HTML5.

- Audio tags should play only if a user intentionally starts the audio.

For details on this creative type, see [HTML5 For Digital Advertising: Guidance for Ad Designers and Creative Technologists](#).

File Sizes

The following table lists the supported file sizes for HTML5 creatives. For additional requirements, see [File Packaging \[11\]](#).

Requirement	Maximum Specification
Initial load	300 KB (200 KB recommended)
Subload	600 KB
Initial file load count	10 files
Subload file count	100 files
File size	5 MB
User-initiated load	2.2 MB (recommended)

File Packaging

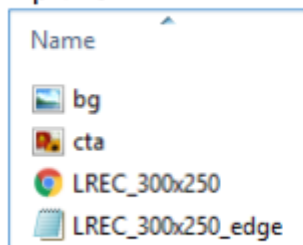
You can use one of the following packaging options:

- A single HTML file.
All information for serving the creative (with the exception of commonly used JavaScript and CSS libraries) should be included in the HTML file. The maximum HTML file size is 200 KB.
- A single root/main HTML file with supporting images.
- A single root/main HTML file with supporting images and additional supporting JS and CSS files.

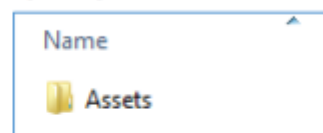
Here's what you need to know about using compressed (ZIP) files:

- All files for displaying the creative (with the exception of commonly used JavaScript and CSS libraries) should be included in the ZIP file.
- The primary HTML file should be located in the root of the ZIP file.
- ZIP files must contain no more than 100 files, including at least one HTML file for use as the initiating file for display. Keep the file count low to minimize browser performance impact.
- You can include only HTML, JS, CSS, MP4, JPG, JPEG, GIF, PNG, and SVG files in a ZIP file.
- When packaging HTML5 creatives, include the asset files, not the folder containing them, in the ZIP file:

Zip this:



Not this:



The following table lists the maximum file size requirements for compressed files. See also [File Sizes \[11\]](#).

Requirement	Maximum Size
Automatically-started video	Less than 1.1 MB
Any individual file	2.2 MB

Requirement	Maximum Size
Primary HTML file	100 KB
ZIP file compressed	Less than 10 MB
ZIP file uncompressed	Less than 12 MB

Click Tag Parameters

A click tag is a parameter used in HTML5 banner ads. The parameter is a variable that defines the destination URL and is provided in the primary HTML file as a URL parameter.

Here's what you need to know about click tag parameters:

- You can customize the name of the URL parameter when uploading or editing the creative.
- Click tag names are case-sensitive. Be sure to use uniform capitalization throughout the creative and any supporting files. For example, `clickTag` and `clickTAG` are not interchangeable. The Trade Desk Platform defaults to `clickTAG`.
- When the user clicks the ad, the creative must direct the user to the correct click tag page in a new window.
- If you want to also use that clickthrough URL in your HTML5 creative, you can configure the creative to use the backup clickthrough URL as the default clickthrough URL.

To call the clickthrough page through the backup ad image correctly, you must supply a clickthrough parameter.



IMPORTANT

If an HTML5 creative's ad tag includes a hard-coded clickthrough URL, The Trade Desk Platform cannot override it. The creative will always point to the hard-coded URL, ignoring any clickthrough URL specified in-platform.

- You can use multiple click-through URLs and define different landing pages for different actions. If you append a URL-escaped landing page to the click tag URL, the platform tracks the click and redirects the request to the given landing page.

```
var clickTAG = getParameterByName("clickTAG") +
encodeURIComponent("http://www.thetradedesk.com");
```



TIP

Use JavaScript to read the parameter from the document location URL and use it to set up the landing page for your clicks. You can use either all single quotes (') or all double quotes (") in your code, but you cannot mix them.

Example 1. A Click Tag Parameter Example

The following code block shows one way to retrieve and implement a creative with a clickthrough URL that has been specified in The Trade Desk platform. In this example, a single image is wrapped with an anchor tag, which, when clicked, opens a new window with the address stored in the `clickTAG` URL parameter of the creative.

```
<html>
<head>
  <script type="text/javascript" charset="utf-8">
    function getParameterByName(name) { ❶
```

```

    name = name.replace(/[\\]/, "\\").replace(/[\\]/, "\\");
    var regex = new RegExp("[\\?&]" + name + "=(^[&#]*)"),
    results = regex.exec(location.search);
    return results === null ? "" :
    decodeURIComponent(results[1].replace(/\+/g, " "));
}
var clickTAG = getParameterByName("clickTAG");
❷
</script>
</head>
<body>
  <a href="javascript:window.open(window.clickTAG);void(0);">
    
  </a>
</body>
</html>

```

- ❶ This function retrieves the `clickTAG` parameter.
- ❷ The location where the value for the clickthrough URL should be stored in the `window.clickTAG` variable.

Specifications for Audio Creatives

The Trade Desk stores audio creatives in a Video Ad Serving Template (VAST) tag or Digital Audio Ad Serving Template (DAAST) tag. When you upload audio creatives, supported audio file formats are automatically converted to VAST or DAAST.

While publisher-specific specifications take priority, The Trade Desk generally recommends that audio creatives meet the following specifications.

Specification	General recommendation
Device type	Refer to publisher-specific specifications.
File type	MP3, M4A, OGG, WAV
File size	Refer to publisher-specific specifications.
Spot length	15, 30 or 60 seconds
Bitrate	160 kbps
	Hosted MP3 files must have a constant bitrate.
Script word count	Refer to publisher-specific specifications.
VAST version (for third-party tags)	VAST 2.0 is most widely supported across all audio publishers.

Publisher-Specific Specifications

The following table provides publisher-specific specifications for audio creatives.

Creative Specifications

Publisher	Markets	Device type	File type	File size	Spot length	Bitrate	Script word count	VAST version (for third-party tags)
Spotify	Global	Mobile, tablet, desktop, Spotify web player Select gaming console, CTV, connected car, connected speaker (vary by market)	PG Mobile: MP4, MOV, OGG Desktop: WebM and MP4 (include both) PMP MP4, OGG All Google deals require an MP4 in the creative.	500MB	Up to 30 seconds	Ideal range: 600-640kbps Min: 192kbps Max: 1000kbps	Up to 65 words	VAST 2.0
SXM Media (Pandora/Soundcloud/Stitcher)	US	Mobile (in-app), tablet, desktop, connected car (in-app), connected home (in-app)	MP3	Max: 2.2MB	15 or 30 seconds (non-skippable)	Min: N/A Max: 320kbps	N/A	Up to VAST 4.0
iHeart Media	Global	Mobile, desktop	MP3, WAV, WMA, OGG	N/A	5, 15, 30, or 60 seconds	Min: 128kbps Max: N/A	N/A	Up to VAST 4.0

Companion Banner Specifications

Some audio publishers allow a companion banner that is served alongside the audio ad while it plays. Here's what you need to know about companion banners:

- The publisher may charge an additional fee to serve a companion banner.
- Companion banners are separate creatives hosted on The Trade Desk platform.
- To append a companion banner to an audio creative in either Add Creative wizard or on the audio creative's page, be sure to first add the banner to the platform.

The following table outlines general recommendations as well as publisher-specific specifications. Publisher-specific specifications take priority.

Publisher	File type	File size	Display size
General recommendation	JPEG, PNG	Refer to publisher-specific specifications.	Refer to publisher-specific specifications.
Spotify	PG Desktop and PMP	PG	PG Desktop and PMP
	Static JPEG	500MB	DV360 - 301x301, other DSPs - 300x250
	PG Mobile	PMP	PG Mobile
	N/A (video is full screen)	200KB	N/A (video is full screen)

Publisher	File type	File size	Display size
SXM Media (Pandora/Soundcloud/Stitcher)	Static JPEG, GIF	100KB	15 or 30 seconds (non-skippable)
iHeart Media	JPEG, GIF, PNG, HTML	50KB	5, 15, 30, or 60 seconds

Audio Creatives Best Practices

Here are some best practices for audio creatives:

- **Make sure your ad length is ideal.** For music streaming, the ideal length is 15 or 30 seconds. For podcasts, longer ads with lengths of more than 35 seconds have been found to drive better results.
- **Repeat the brand name within the first five seconds.** When you say the brand name early and often, you help the listener remember the brand.
- **Repeat the call-to-action.** Repeating the CTA two times or more helps drive engagement.
- **State any URLs clearly.** Make sure any URLs you mention are easy to read aloud without special characters like slashes or dashes and be sure to spell it out if needed.
- **Incorporate sonic branding.** Include a sound that listeners can immediately recognize and connect to the brand. This can be the same intro used at the opening of all your ads, a jingle or a character voice.
- **Make sure speech mirrors natural conversation.** Use relatable language with a conversational tone.
- **Focus on one memorable message.** Share information clearly and directly and be cautious about including multiple messages in a single ad.
- **Avoid crammed or rushed ads.** Aim to have a script with 60 to 65 words for a 30 second spot. Use a deliberate cadence with well-time pauses.

CTV Creative Specifications

Here's what you need to know about Connected TV (CTV) creatives:

- CTV creatives can be hosted by The Trade Desk or by a third party, which you decide when uploading your creatives.
- CTV creatives hosted by The Trade Desk are automatically served in an SSL-compliant format.
- To reach the most CTV inventory using third-party creatives, include a media file from each spec type.
- CTV devices do not support the ability to click through to a landing page.
When uploading your video creative, you can set up a click-through URL only if you are running on full-episode player inventory (on desktop or mobile), but not when running exclusively on CTV device inventory.
- Most CTV inventory accepts only the VAST 2.0 standard for VAST bid responses. The Trade Desk platform creates and sends bid responses on an impression-by-impression basis depending on the VAST version that the player requests.
- After you upload a video creative, The Trade Desk platform automatically encodes the video asset as the MP4 media type in various ad formats and bitrates for serving across the greatest scale of video placements.
- The Trade Desk does not upscale, upsample, or stretch uploaded video assets, so be sure to upload the highest-quality file you have available.
- Certain requirements (such as bitrates) vary drastically by publisher. Before submitting a CTV creative, be sure to refer to individual publisher specifications or work with publishers directly.
- Brightline (SpotX) and TripleLift supports interactive video units, and Roku has an in-house team available to help with these types of CTV creatives.

General Requirements and Guidelines

Regardless of the publisher, all creatives must meet the following requirements:

Requirement	Description
File format	<ul style="list-style-type: none"> Only MP4 files are allowed for CTV ad placements. Creatives hosted by The Trade Desk are automatically converted to MP4. WebM files are not supported for CTV.
File tags	<ul style="list-style-type: none"> Third-party creatives must be VAST tags only. VPAID tags are not supported on CTV. While there is not a specific version of VAST that should be used with CTV creatives, keep in mind that VAST 3.0 and VAST 4.0 are typically less scalable. <p>If you're using a standard VAST tag that includes a VPAID component (for example, as part of an API framework), then this cannot cause any issues for your CTV creative. A VAST wrapper with VPAID functionality is not the same as a VPAID wrapper.</p>
Creative file	<ul style="list-style-type: none"> It is a best practice to assign one tag to each creative media asset. Creative file rotation through one tag is not recommended.
SSL compliance	All creatives must be SSL compliant.
Publisher verification	<p>Be sure to share the creative with the publisher before activation. This ensures that your creative meets their specifications.</p> <p>CTV creatives running via FreeWheel require publisher verification. Publisher Audit Status appears on the creative page under Supply Vendor Audit Status for these creatives.</p>

Publisher-Specific CTV Creative Specifications

The following are third-party CTV creative specifications:

- [CBS Interactive](#)
- [Disney Hulu](#)
- [Fox \[16\]](#)
- [NBCUniversal](#)
- [Warner HBO Max](#)
- [Sky](#)
- [Sling](#)
- [Third-Party Vendors](#)

Media File Requirements

Here's what you need to know about media file requirements for CTV creatives:

- A constant frame rate is required.
Frame rate is the number of frames played per second (FPS).
- No telecine, interlacing, or duplicate frames are allowed.
Telecine refers to footage that has been converted from its native or source rate (for example, 24 frames per second) to broadcast or another rate by inserting a duplicate frame every fourth frame, or by blending or interlacing every third frame together.
- Bitrates vary drastically by publisher. Typically, a minimum of 1200 kbps to 1500 kbps is required. A bitrate of 1.6 mbps to 3.2 mbps is preferred.
For example, Hulu-hosted videos must have a minimum bitrate of 15,025 kbps.
- The maximum file size is determined by multiplying the duration of the media by its bitrate. For example, 30 seconds x 15,000 kbps = 450 MB or 0.45 GB.
- A mezzanine is a compressed video file that is visually indistinguishable from the full-resolution master exported from your editing program, but significantly smaller in size. It's not a specific file type, but rather a description of a general set of parameters used to create a file that looks great—without the information that's only useful to a video editor.



IMPORTANT

The mezzanine file requires a 1920 × 1080 resolution with a video bitrate of at least 15,000 kbps or higher.

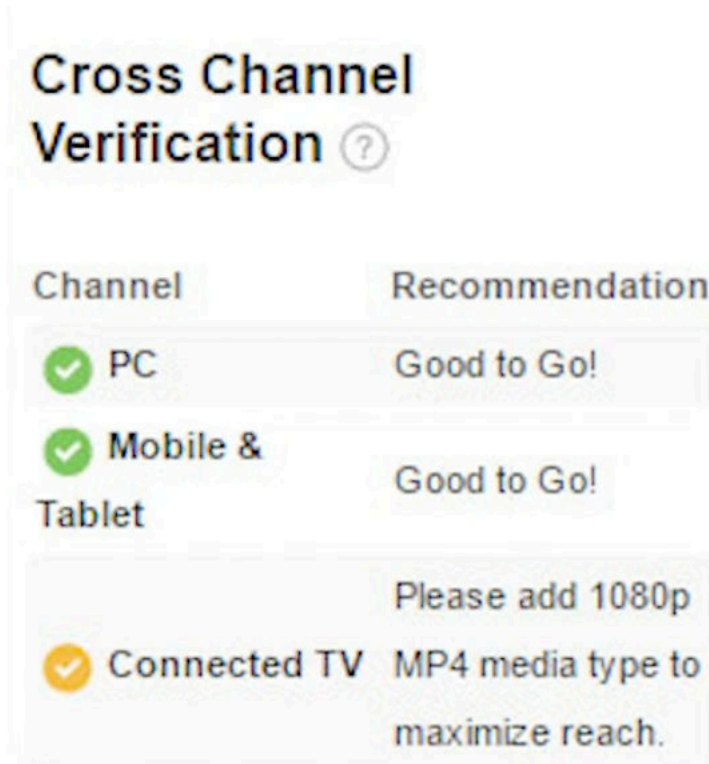
**TIP**

For best results, work directly with publishers to understand their specific media file requirements.

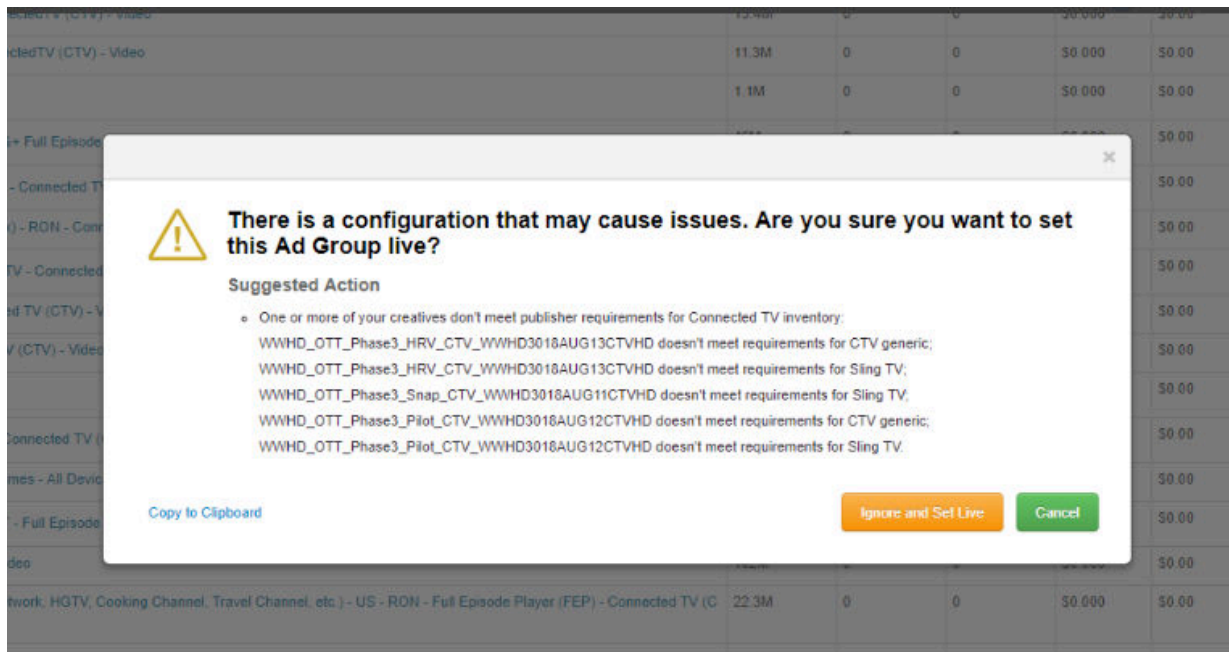
Type	Mezzanine	High-Quality	Medium-Quality	Low-Quality
File type	All types require MP4. Video creatives hosted by The Trade Desk are automatically encoded as MP4.			
Resolution	1920x1080	1920x1080	1280x720	1280x720
Bitrate range	15,000 kbps to 30,000 kbps	4,000 kbps to 6,500 kbps	1,200 kbps to 3,500 kbps	500 kbps to 1,200 kbps
Maximum file size	10 GB	N/A	N/A	N/A
Frame rate (FPS)	23.98 or 29.97	23.98 or 29.97	23.98 or 29.97	23.98 or 29.97
Audio sample rate	48 kHz	48 kHz	48 kHz	48 kHz
Audio bit rate minimum threshold	192 kbps	192 kbps	192 kbps	192 kbps

Troubleshooting and Go-Live Check

If your creative does not meet a requirement, a recommendation for how to meet the requirements will appear in the [Cross Channel Verification](#) section of the creative details page. In the following example, the uploaded creative is not 1080p. You will see a recommendation to upload a 1080p MP4 media type to maximize the reach for CTV ad groups.



If your CTV ad group includes at least one private contract, an additional creative check called the Go-Live Check is performed when you turn on or activate your ad group. This check verifies that the ad group's creative format meets the private contract publisher's requirements.



TIP

More information on this topic and other best practices, novel solutions, and troubleshooting tips are available in The Trade Desk Edge Academy [Trader's Toolkit video series](#).

CTV Creatives Best Practices

Here are some best practices for CTV creatives:

- Ensure that the video asset meets the bitrate, duration, and file size or other specifications outlined in the CTV contract.



TIP

Publishers have different bitrate requirements. We recommend enabling multiple bitrates within your creatives to account for these variations.

- Review the publisher's creative specifications and ensure that your video asset is compliant with what the publisher has outlined.
- Use hosted video ads with the highest quality. This helps ensure that you can run via most CTV publishers.
- Ensure that the loudness of audio averages -24 LKFS.
- Run a thorough check of your creative details in your ad group settings before making the ad group go live.
- File types other than MP4 are not supported for CTV creatives, but if you upload another file format to host on The Trade Desk platform, it is automatically encoded as MP4.
- Ensure that third-party creatives are Video Ad Serving Template (VAST) tags only. VPAID tags are not supported for CTV.
- Ensure that there is only one tag for each creative media asset as opposed to doing creative file rotation through one tag.

- Ensure that you share the creative with publishers before activation to verify that the creative meets their specifications.

Specifications for Mobile Rich Media Creatives

Mobile rich media ad interface definitions (MRAID) is an industry standard set by the IAB for rich media ads running in mobile apps. MRAID provides a common language that allows mobile banner creatives to perform expansion and other advanced actions across diverse SDK vendors.

The Trade Desk is certified as an ad server with Celtra, Flashtalking, and InMobi. These certifications mean that The Trade Desk is able to successfully render MRAID creatives on supported inventories. This also means that The Trade Desk is an available option in both Celtra and InMobi's tag generation platforms, which automatically fill the ad tags with all applicable The Trade Desk [macros](#) for hassle-free third-party tag creation.



IMPORTANT

Regardless of the vendor, be sure to select the correct environment when generating the ad tag. For example, web browser creatives do not work in in-app environments, because a web browser is for creatives that serve in the mobile web ad environment and MRAID is specific to in-app creatives.

Here's what you need to know about using MRAID creatives:

- The Trade Desk supports versions 1.0 and 2.0 of third-party MRAID creatives.
- If you select The Trade Desk as the ad server/DSP, all applicable The Trade Desk macros are automatically entered into the ad tag.
- MRAID tags might render better on some apps than others, depending on whether a publisher has SDK integrations with MRAID vendors.
- While MRAID provides the option for creatives to perform advanced functions (for example, the ability to "Shake your phone to learn more about this product"), the action might not work on some apps. To ensure that you serve on the best inventory, set up a private deal for these types of creatives. For details, contact your Account Manager.
- If an MRAID creative is an expandable creative, do not declare it as expandable. If you do, this prevents the MRAID creative from spending.
- The Trade Desk has no visibility into whether an MRAID creative renders correctly and whether a click is performed and tracked at the intended click action. This is because The Trade Desk does not have direct SDK integrations with the publishers. Only MRAID vendors and publishers can provide reporting for these metrics.

See also [Mobile \[20\]](#).

Generating MRAID Tags

To generate an MRAID tag, provide all the relevant creative assets to each vendor, such as Celtra or InMobi, including the creative image, click action, and ad environment. The vendor then generates a unique third-party ad tag for each creative.

Generating an MRAID Tag for Celtra

To generate an MRAID tag, provide all the relevant creative assets to Celtra (including the creative image, click action, and ad environment). Celtra will then provide a link to generate an MRAID ad tag that can be entered into The Trade Desk's platform as a third-party ad tag.

After the correct environment, ad server, and click tracking options are selected, all applicable The Trade Desk macros will be automatically entered into the ad tag. Simply copy and paste and upload it as a third-party tag in the Trade Desk platform.

Generating an MRAID Tag for InMobi

To generate an MRAID tag, provide all the relevant creative assets to InMobi (including creative image, click action, and ad environment). InMobi will then generate an MRAID ad tag based on the information provided.

Caveats to Using MRAID Creatives

Here are some caveats to using MRAID creatives:

- MRAID tags might render better on some apps than others, depending on if a publisher has SDK integrations with MRAID vendors.
- While MRAID provides the option for creatives to perform advanced functions (for example, the ability to "Shake your phone to learn more about this product"), the action might not work on some apps. We recommend contacting your The Trade Desk Account Manager and setting up a private deal for these types of creatives to ensure that you are serving on the best inventory.
- If an MRAID creative is an expandable, do not declare it as expandable in the Creatives Library. If you do, this will prevent the MRAID creative from spending.
- The Trade Desk has no visibility into whether or not an MRAID creative renders correctly and whether or not a click is performed and tracked at the intended click action. This is because The Trade Desk does not have direct SDK integrations with the publishers. Only MRAID vendors and the publishers can provide reporting for these metrics.

Specifications for Mobile Creatives

The following mobile creative types are supported for hosted and third-party ad tags.

Static Banner Type	Banner Size	File Type	Maximum File Size
Smartphone	300x50	JPEG	40 KB to 1 MB (depending on the supply vendor)
	300x250	PNG	
	320x50	GIF	
	336x280		
	320x480		
Tablet	300x250	JPEG	150 KB to 1 MB (depending on the supply vendor)
	728x90	PNG	
	160x600	GIF	
	468x60		
	336x280		

The following table lists the supported (optimal) top-display sizes for display creatives.

Type	Size
Tablet Interstitial Landscape	1024x768
Tablet Interstitial Portrait	768x1024
Large rectangle	336x280
Mobile Leaderboard	300x50, 320x50

See also [Mobile Rich Media \[19\]](#).

Specifications for Video Creatives

There are different aspects to consider when submitting video creatives in order for them to work properly and be accepted by supply-side platforms (SSPs). Some of the common errors while submitting

video creatives include using an unsupported file type or a Video Ad Serving Template (VAST) version that an SSP does not support.

Your video creatives must comply with [ad content guidelines](#) and meet the requirements of The Trade Desk platform and the SSP on which it will be served.

The following sections provide additional information on the video creative specifications.

By Channel

Here's what you need to know:

- For the greatest scale across mobile, desktop, and CTV, use MP4 files for your video creatives. If you would like to use a different file format, request additional formats for devices where viewability is innate (such as CTV devices).
- Hosted video creatives are uploaded directly into the platform and served by The Trade Desk.
- VAST creatives are standard for in-stream video and specify an XML file.
- Video Player-Ad Interface Definition (VPAID) creatives are the common interface between video players and ad units (commonly used for ad measurement and verification).
- Mobile rich media ad interface (MRAID) creatives are part of a software development kit (SDK) for ads and apps that allow for interaction between a user and a rich media ad.

Creative Type	Mobile Video	Desktop Video	Connected TV
Hosted video	Accepted across both mobile web and mobile in-app environments.	Accepted across the desktop environment.	Accepted across the CTV environment.
VAST	Accepted across both mobile web and mobile in-app environments. In mobile in-app environments, use VAST instead of VPAID.	Accepted across the desktop environment.	Accepted across the desktop environment, but you must have a high-quality MP4 assigned to the template.
VPAID	Accepted across both mobile web and mobile in-app environments. In mobile in-app environments, use VAST instead of VPAID.	Accepted across the desktop environment, but you must ensure that the publisher's specific video player accepts VPAID (either JavaScript or HTML formats are recommended).	Not accepted in the CTV environment.
MRAID	Accepted in mobile in-app environments and only as interstitial ads.	Not accepted in the desktop environment.	Not accepted in the CTV environment.

By Resolution

Requirement	Low Resolution	Medium Resolution (Standard Definition)	High Resolution (High Definition)
16:9 aspect ratio	<ul style="list-style-type: none"> • 360p or less • Typically, 640x360 	<ul style="list-style-type: none"> • Greater than 360p, up to 576p • Typically, 854x480 or 1024x576 	<ul style="list-style-type: none"> • Greater than 576p, up to 1080p • Typically, 1280x720 (for 720p) or 1920x1080 (for 1080p)
4:3 aspect ratio	<ul style="list-style-type: none"> • 480p or less • Typically, 640x480 	<ul style="list-style-type: none"> • Greater than 480p, up to 576p • Typically, 640x480 or 768x576 	Not available for high resolution
Target bitrate	500 kbps to 700 kbps	700 kbps to 1500 kbps	<ul style="list-style-type: none"> • 720p: 1500 kbps to 2500 kbps • 1080p: 2500 kbps to 3500 kbps


Video Creatives Hosted by The Trade Desk

Here's what you need to know about video creatives hosted by The Trade Desk:

- After you upload a video creative, The Trade Desk platform automatically encodes the video asset in the MP4 and WebM media types in various ad formats and bitrates for serving across the greatest scale of video placements (desktop, mobile web, and in-app). HTTP live streaming (HLS) is also supported for iOS devices.

- On an impression-by-impression basis, the platform creates and sends bid responses depending on what VAST versions, video formats, and bitrates the player requests. The Trade Desk platform can generate VAST 2.0, 3.0, or 4.1 responses as required.
- The Trade Desk does not upscale, upsample, or stretch uploaded video assets, so be sure to upload the highest-quality file you have available.
- When you upload your hosted video creative, you also have the option to add third-party tracking pixels to track various events that occur when an impression is served.
- The Trade Desk supports the ability to track video viewability on first-party hosted video creatives through various partners. With integrated reporting enabled, you do not need to add a VPAID asset or have your VAST wrapped by the third-party viewability vendor.

The Trade Desk supports first-party video creatives that meet the following specifications.

Requirement	Description
File types	MP4, WebM, MOV, MPG, MPEG
<div>  IMPORTANT When submitting WebM assets, to avoid encoding errors, make sure your video codec is VP8. </div>	
File size	200 MB (recommended maximum)
Ad formats	<ul style="list-style-type: none"> • 16:9: 640x360 (minimum); 1920x1080 (recommended) • 4:3: 480x360 (minimum); 640x480 (recommended)
Bitrate	Greater than or equal to 2500 kbps. Lower quality is supported, but not recommended due to limited demand.

Companion Banner Specifications

The following table lists the companion banner specifications.



NOTE

To append a companion banner to a video creative in either the [Add Creative wizard](#) or on the video creative's page, be sure to first add the banner to the platform.

Requirement	Description
File types	JPG, GIF, PNG
Ad formats	Listed in order of popularity: <ul style="list-style-type: none"> 300x250 728x90 320x50 160x600 300x600 300x50 320x480 468x60 970x250

Requirement	Description
Length (Duration)	<p>Minimum: 5 seconds or longer</p> <p>Maximum: 300 seconds (5 minutes) or shorter</p> <p>Bid requests usually fall into standard buckets (5 seconds, 15 seconds, 30 seconds, 60 seconds, and so on) of maximum duration (or minimum duration). It is possible for any video length to be sent to fulfill the request as long as it falls below that maximum duration (and above the minimum duration, if provided).</p> <p>For example, a 25-second ad could be sent to fulfill a request with a maximum duration of 30 seconds, or a 6-second ad could be sent for 15 seconds. The player adapts to a shorter video length than the maximum duration, so there is no dead space between the end of the ad and the beginning of the publisher's video content.</p>


Third-Party Hosted Video Creatives

Here's what you need to know about third-party video creatives:

- The Trade Desk requires at least one of the following media types for third-party VAST: MP4, FLV, VPAID 1.0, or VPAID 2.0 Flash.
- When uploading third-party VAST, be sure to include MP4, WEBM, and FLV media assets in addition to any required VPAID assets.
This provides access to the largest video inventory scale, as publishers and video players in different environments (desktop, mobile web, and in-app) require specific video media types to render the video ad.
- If your third-party VAST contains only a VPAID 1.0 media asset, scale is limited to bid requests that support VPAID 1.0. See also [Media and Inventory Types \[24\]](#).
- VPAID support varies by publisher and SSP. Not all video bid requests support VPAID assets.

Specifications

The following table lists specifications for third-party video creatives.

Requirement	Description
VAST specifications	<p>VAST 2.0</p> <p>VAST 2.0 with VPAID 2.0 JS</p> <p>VAST 3.0</p>
Media types	<p>MP4</p> <p>FLV</p> <p>MPG</p> <p>WEBM</p> <p>OGG</p> <p>HLS</p> <p>3GP</p> <p>VPAID 1.0</p> <p>VPAID 2.0 JS</p>
	<div>  <p>IMPORTANT When submitting WEBM assets, to avoid encoding errors, make sure your video codec is VP8.</p> </div>
Video length (duration)	<p>Minimum: 5 seconds or longer</p> <p>Maximum: 300 seconds (5 minutes) or shorter</p>

Media and Inventory Types

The following table summarizes supported media types across various inventory types.

Inventory Type	MP4 Media Asset	VPAID 1.0	VPAID 2.0 JS
Desktop video	Supported	Supported	Supported
Mobile web video	Supported	Not supported	Supported
In-app video	Supported	Not supported	Limited inventory

Vertical Video Creatives

The vertical video refers to any video that is served in a vertical orientation (taller than it is wide) rather than in a horizontal (landscape) orientation.

Preview



Here's what you need to know about vertical video creatives:

- Vertical video is supported for both hosted and third-party creatives.
If you are using a third-party video, ensure that your ad server displays the correct dimensions in VAST after you have uploaded our video. See also specifications for [third-party video creatives \[23\]](#).
- Vertical video creatives that are correctly encoded and assigned are given the 360x640 ad format. This is also the format used for vertical video creatives in reporting.
On the [Creative Details](#) page, you'll see a vertical preview player rather than the normal 16:9 player.
- Any creatives that have been correctly encoded and assigned are eligible to bid on vertical bid requests (where the player height is greater than the player width).
- If your creatives are specific to a device type, break each out into a separate ad group so that you can properly target your desired device types with your device-specific creatives.

Vertical video creatives must meet the same specifications as other [video creatives \[20\]](#), with a few recommendations listed in the following table.

Requirement	Description
Resolution	1080x1920
Aspect ratio	9:16
Minimum height	400 px
Height must be greater than width to classify as a vertical video.	

Video Guidelines for the United Kingdom

For short-form video content in the UK, the [Coalition for Better Ads \(CBA\)](#) guidelines state the following:

- Pre-roll ad experiences that include one or more ads with a combined view length of over 31 seconds must be skippable within the first six seconds.
- Mid-roll ads may not be run.
- Display ads with static or animated ad messages and/or images must not take up more than 20% of the video player or appear in the middle third of the video player.

Specifications for Native Creatives

Native creatives are comprised of assets of multiple types (including images and text). Because of the diversity of contexts where native ads are displayed, provide multiple assets to ensure that the best one is picked to match each impression.



Here's what you need to know about native creatives:


- Third-party JavaScript pixels are currently supported for native creatives except with AdX and Taboola.
- All native providers support third-party image trackers, but only three can be appended to a single creative.
- If your ad group is targeting categories, keep in mind that native creatives are not compatible with Tier 2 and Tier 3 contextual categories. They are compatible only with Tier 1 or custom categories.
- All character count limits include spaces and punctuation marks.
For example, the phrase "Water.org brings fresh water to thirsty people" contains 39 letters, one punctuation mark, and six spaces (a total of 46 characters).

For details on viewability measurement for native creatives, see [Native Viewability Reporting Availability](#). See also [Native Creatives](#).

The Trade Desk Guidelines

The following table lists The Trade Desk optimal specifications for native creatives.

Requirement	Description	Specification
Main image	The large main image to be used in the advertisement.	<p>1200x627, (1.91:1 aspect ratio)</p> <p>The main image must be less than 2000x2000 pixels.</p> <p>The main image file must be smaller than 2 MB.</p>

Requirement	Description	Specification
Main video	When included, the creative bids only on impressions that support video.	5 minutes (300 seconds) maximum The main video must have a file size of less than 2 GB.
<div>  NOTE For aspect ratio recommendations, see Guidelines by SSP [27] or work with your SSP. The most common aspect ratios are 16:9, 4:3, and 1:1. </div>		
Icon	The app icon or brand logo to be displayed in the ad.	200x200 (1:1 aspect ratio)
Logo	The advertiser's logo to be included in the ad, either overlaid over the main image or shown separately from the main image.	200x200 (1:1 aspect ratio)
Short title	The title or headline for the native ad—should be optimized for mobile.	25 characters maximum
Long title	The title or headline for the native ad—should be optimized for desktop.	90 characters maximum
Short description	Additional text typically displayed below the title—should be optimized for mobile.	90 characters maximum
Long description	Additional text typically displayed below the title—should be optimized for desktop.	140 characters maximum
Sponsor (Brand)	The name of the advertiser running the native ad.	Recommended 25 characters maximum; otherwise, 100 characters maximum
Call to action	Text, such as <i>Learn More</i> or <i>Buy Now</i> , that likely appears in a button near the image assets.	15 characters maximum

Guidelines by SSP



NOTE

For maximum reach, follow The Trade Desk guidelines. Individual supplier requirements have been provided for reference, but you may limit your reach if you use only supplier-specific formats.

See also the following SSP-specific specifications for native creatives:

- [AdYouLike](#)
- [Google AdX](#)
- [Nativo](#)
- [Outbrain](#)
- [Sharethrough](#)
- [Taboola](#)
- [TripleLift](#)
- [Xandr \(login required\)](#)
- [Yieldmo](#)