How to Stream Videos Using Amazon S3 and Cloudfront

Note: This document is for slightly advanced users who know how to use Amazon Cloudfront. If you don't know what Amazon Cloudfront is then you don't need to read this document

Lightbox Ultimate allows you to stream videos hosted on your Amazon S3 account using Cloudfront content delivery service. You will need to have both Amazon S3 and Amazon Cloudfront web services enabled in your Amazon account to use this feature.

What is Amazon Cloudfront?

Cloudfront is a web service used to deliver content using RTMP (Real Time Messaging Protocol). It allows you to use your bandwidth efficiently by streaming content (not progressive download). Also your users will be able to seek to a certain point of the video even though it has not been buffered.

You can learn more about Amazon Cloudfront here

There are three ways you can embed a video using Amazon Cloudfront:

- 1. Embed the Video directly on the post/page
- 2. Embed the Video on a lightbox Popup using anchor text
- 3. Embed the Video on a lightbox Popup using anchor image

How to Set Up Amazon Cloudfront

Please follow the steps (steps 1- 13) to successfully set up your Amazon S3 and Amazon Cloudfront configuration so you can embed videos with streaming capabilities using Lightbox Ultimate plugin.

Configuring Amazon S3 Bucket

If you have already configured Amazon s3 and you have the files in a s3 bucket then you can skip to step 9 (Creating Cloudfront streaming distribution).

Step 1: Sign in to the AWS Management Console and open the Amazon S3 console at <u>https://console.aws.amazon.com/s3/</u>.

Step 2: In the Amazon S3 console, click Create Bucket.

Step 3: In the Create Bucket dialog, enter a bucket name.

Important

For your bucket to work with CloudFront, the name must conform to DNS naming requirements. For more information, go to <u>Bucket Restrictions and Limitations</u> in the Amazon Simple Storage Service Developer Guide.

Step 4: Select a region for your bucket. By default, Amazon S3 creates buckets in the US Standard region. It is recommended that you choose a region close to you to optimize latency, minimize costs, or to address regulatory requirements.

Step 4: Click Create.

Step 5: Select your bucket in the Buckets pane, and click Upload.

Step 6: On the **Upload** - **Select Files** page, click **Add Files**, and add your media file. For Example: myvideo.mp4

Step 7: Grant public read permissions for the files that you added in the previous step.

a. Click Set Details.

b. On the Set Details page, click Set Permissions.

c. On the Set Permissions page, click Make everything public.

Step 8: Click Start Upload.

Creating CloudFront Streaming Distribution

To configure CloudFront to stream a media file, you need a CloudFront streaming distribution for the media file you just uploaded to your Amazon S3 account. Perform the following procedures to create a streaming distribution.

Step 9: Open the Amazon CloudFront console at <u>https://console.aws.amazon.com/cloudfront/</u>.

Step 10: In the CloudFront console, click Create Distribution.

Step 11: In the Create Distribution Wizard, click Get Started under RTMP.

Step 1: Select delivery method	Select a delivery method for your content.
Step 2: Create distribution	Web
	Create a web distribution if you want to:
	 Speed up distribution of static and dynamic content, for example, .html, .css, .php, and graphics files. Distribute modia files using UTTP or UTTPC
	 Distribute media mes using HTTP of HTTPs. Add, update, or delete objects, and submit data from web forms.
	Use live streaming to stream an event in real time.
	You store your files in an origin — either an Amazon S3 bucket or a web server. After you create the distribution
	Get Started
	RTMP
	Create an RTMP distribution to speed up distribution of your streaming media files using Adobe Flash Medi CloudFront edge location. Note the following:
	To create an RTMP distribution, you must store the media files in an Amazon S3 bucket.

Step 12: On the second page of the wizard, click in the **Origin Domain Name** field, and select the Amazon S3 bucket that you created in the earlier procedure (**Configuring Amazon S3 Bucket** section). If you have a lot of Amazon S3 buckets, you can type the first few characters of the bucket name to filter the list.

Step 1: Select delivery method	Create Distribution		8
Step 2: Create distribution	RTMP Distribution Setting	IS	
	Origin Domain Name	myawsbucket.s3.amazonaws.com	0
	Restrict Bucket Access	O Yes ● No	0
	Restrict Viewer Access (Use Signed URLs or Signed Cookies)	⊙ Yes	0
	Price Class	Use All Edge Locations (Best Performance) 🗸	0
	Alternate Domain Names (CNAMEs)		0
	Logging	⊖ On ⊛ Off	0
	Bucket for Logs		0
	Log Prefix		0
	Comment		0
	Distribution State	Inabled Disabled	0
		Cancel Back Create Distr	ibution

Step 13: Accept the default values for the remaining fields on the **Create Distribution** page, and click **Create Distribution**.

After CloudFront creates your distribution, the value of the **Status** column for your distribution will change from **InProgress** to **Deployed**. This should take less than 15 minutes.

The domain name that CloudFront assigns to your distribution appears in the list of distributions. The domain name also appears on the **General** tab for a selected distribution. The domain name looks a lot like the following:

s5c39gqb8ow64r.cloudfront.net

Please save the name of your domain and the video file to a text file for later use. You will need to include these values in the lightbox ultimate cloudfront shortcode.

Embedding the Videos on Your Site

Now that you have everything set up and configured, you can use one of the following lightbox ultimate shortcodes to embed a video file and stream it from your cloudfront server.

Option 1 (Direct embed)

You can use the following shortcode to directly embed a video (see the parameter reference section below for detailed explanation of each parameter):

[wp_lightbox_ultimate_amazon_s3_cloudfront video="my-video.mp4" domain="s72hg8.cloudfront.net" width="500" height="320" title="title goes here" direct_embed="1"]

If you have the video in a folder, you need to specify the path in the video parameter.

[wp_lightbox_ultimate_amazon_s3_cloudfront video="myfolder/my-video.mp4" domain="s72hg8.cloudfront.net" width="500" height="320" title="title goes here" direct_embed="1"]

Option 2 (Lightbox)

You can use the following shortcode to embed a video with anchor text (see the parameter reference section below for detailed explanation of each parameter):

[wp_lightbox_ultimate_amazon_s3_cloudfront video="my-video.mp4" domain="s72hg8.cloudfront.net" width="640" height="480" title="title goes here" anchor_type="text" text="click here to open the video"]

If you have the video in a folder, you need to specify the path in the video parameter.

[wp_lightbox_ultimate_amazon_s3_cloudfront video="myfolder/my-video.mp4" domain="s72hg8.cloudfront.net" width="640" height="480" title="title goes here" anchor_type="text" text="click here to open the video"]

Option 3 (Lightbox)

You can use the following shortcode to embed a video with anchor image (see the parameter reference section below for detailed explanation of each parameter):

[wp_lightbox_ultimate_amazon_s3_cloudfront video="my-video.mp4" domain="s72hg8.cloudfront.net" width="640" height="480" title="title goes here" anchor_type="image" source="http://www.example.com/anchor-image.jpg"]

If you have the video in a folder, you need to specify the path in the video parameter.

[wp_lightbox_ultimate_amazon_s3_cloudfront video="myfolder/my-video.mp4" domain="s72hg8.cloudfront.net" width="640" height="480" title="title goes here" anchor_type="image" source="http://www.example.com/anchor-image.jpg"]

Shortcode Parameter Reference

Following is a list of all the available parameters that you can use with the Amazon Cloudfront shortcode:

video

The name of the S3 video you want to play (example: my-video.mp4). If the video is in a folder you can include it with a forward slash (example: myfolder/my-video.mp4).

domain

The name of the domain associated with your cloudfront distribution (Example: s72hg8.cloudfront.net)

width

The width of the video (Example: 640). Do not include this parameter in the shortcode if you want to use the width specified in the General Settings.

height

The height of the video (Example: 480). Do not include this parameter in the shortcode if you want to use the height specified in the General Settings.

title

The title for the video. Do not include this parameter in the shortcode if you do not want to use a title.

direct_embed

Set this value to 1 (direct_embed="1") to directly embed the video on a WordPress post/page. Do not include this parameter in the shortcode if you want to embed the video for lightbox display.

anchor_type

Type of anchor which will be used to embed this video file. Setting this option to text (anchor_type="text") will embed the video file with anchor text. Setting this option to image (anchor_type="image") will embed the video file with anchor image.

When a user clicks on the anchor the video will pop up in the lightbox window

text

The anchor text which will be used to link to the video file. (Example: text="click here to open the mp3 file"). This option is available only if you are using anchor_type="text". Otherwise do not include this parameter in the shortcode.

source

The anchor image which will be used to link to the video file. (Example: source="http://www.example.com/anchor-image.jpg"). This option is available only if you are using anchor_type="image". Otherwise do not include this parameter in the shortcode.

poster

The URL of the image that you want to use as a poster. (Example: poster="http://www.example.com/poster.jpg"). The poster image is shown until the user hits the play button.