

EZDRM Integration THEOplayer Portal

Table of Contents

| | |
|---|-----------|
| Introduction..... | 3 |
| Widevine/PlayReady Universal Playback..... | 3 |
| <i>Obtaining a PX Value.....</i> | <i>3</i> |
| <i>License Acquisition URL - Widevine.....</i> | <i>3</i> |
| <i>License Acquisition URL - PlayReady.....</i> | <i>3</i> |
| <i>Create an HTML5 SDK.....</i> | <i>4</i> |
| Sample HTML for MPEG-DASH..... | 8 |
| Apple FairPlay HLS Playback..... | 10 |
| <i>Create an HTML5 SDK.....</i> | <i>10</i> |
| Sample HTML for HLS..... | 14 |
| Additional Information..... | 16 |

Version 1.0 / Updated September 2020

Introduction

The following document outlines playback using THEOplayer portal. THEOplayer accepts streams from an MPEG-DASH (*.mpd) file for Microsoft PlayReady and Google Widevine, or a *.m3u8 file for Apple FairPlay and HLS.

Access the portal at: <https://portal.theoplayer.com>

Widevine/PlayReady Universal Playback

MPEG-DASH requires 3 values:

1. The **.mpd URL**
2. The **Widevine License Acquisition URL**
3. The **PlayReady License Acquisition URL**

Obtaining a PX Value

You will need your six-digit PX value as part of the Acquisition URLs in the upcoming sections.

Your Widevine PX value is the last six characters of your Widevine Profile ID. Your PlayReady PX value is the last six characters of your PlayReady Profile ID. The appropriate one is required for all packagers you use.

Visit https://www.ezdrm.com/Documentation/EZDRM_Testing_Playback_v2.pdf for more details on how to find your PX value.

License Acquisition URL - Widevine

The Widevine Acquisition URL is: <https://widevine-dash.ezdrm.com/widevine-php/widevine-foreignkey.php?pX=XXXXXX>

Replace **XXXXXX** with your Widevine PX Value.

License Acquisition URL - PlayReady

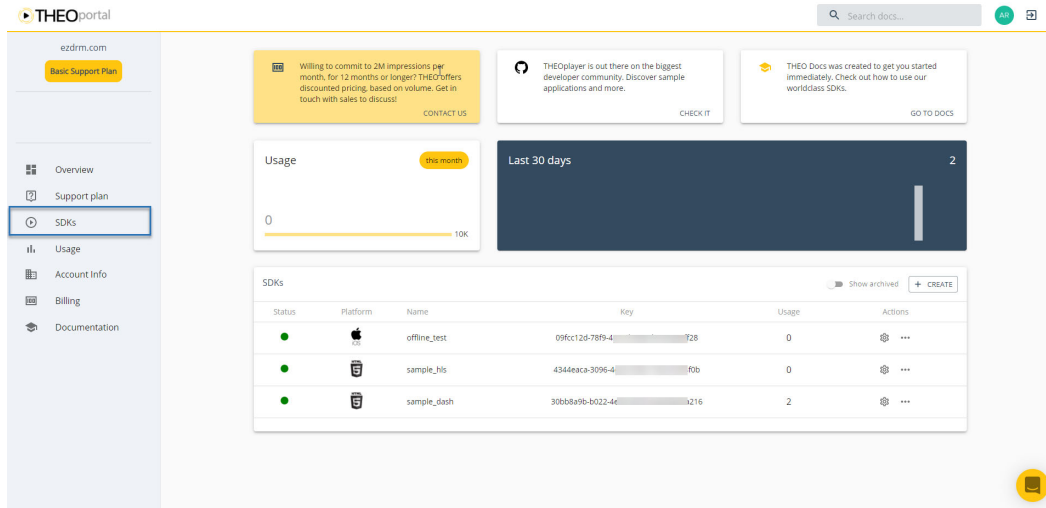
For PlayReady, the Acquisition URL is:

<https://playready.ezdrm.com/cency/preauth.aspx?pX=XXXXXX>

Replace **XXXXXX** with your PlayReady PX Value.

Create an HTML5 SDK

To create an SDK in the THEOportal, click on **SDKs** on the left menu.

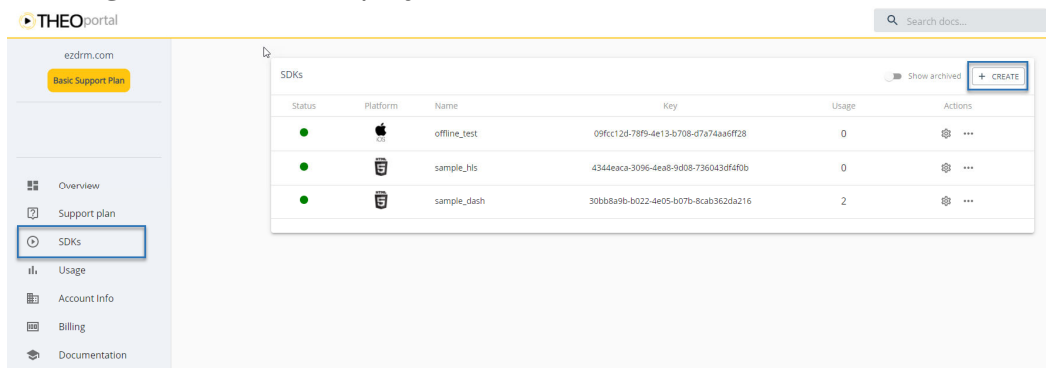


The screenshot shows the THEOportal interface. On the left, the 'SDKs' menu item is highlighted. The main content area displays a 'Usage' section with a bar chart for 'this month' and 'Last 30 days'. Below this is a table of existing SDKs:

| Status | Platform | Name | Key | Usage | Actions |
|--------|----------|--------------|--------------------------------------|-------|---------|
| ● | Apple | offline_test | 09fcc12d-78f9-4e13-b708-d7a74aa6f228 | 0 | ⚙️ ... |
| ● | Android | sample_hls | 4344eaca-3096-4eab-9d08-736043df4f0b | 0 | ⚙️ ... |
| ● | Android | sample_dash | 30bb8a9b-b022-4e05-b07b-8cab362da216 | 2 | ⚙️ ... |

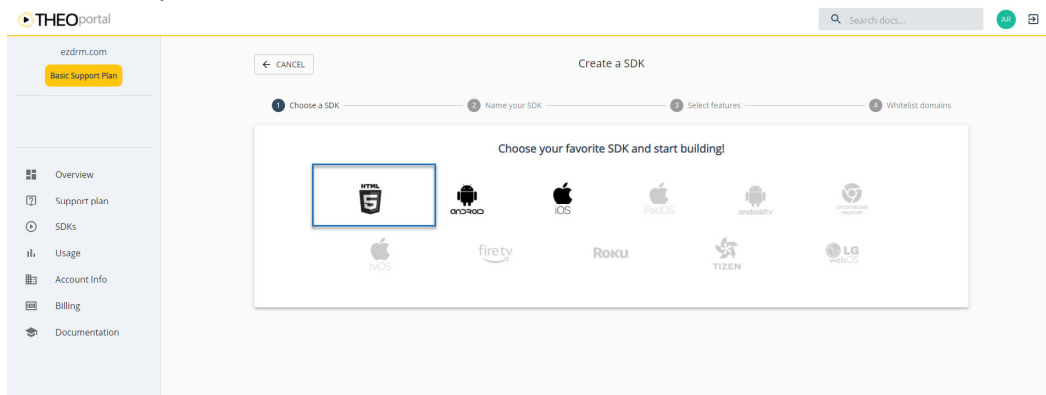
A '+ CREATE' button is visible in the top right of the SDKs table.

Existing SDKs will be displayed, click **Create** to create a new SDK.



This screenshot is similar to the previous one, but the '+ CREATE' button in the top right corner of the SDKs table is highlighted with a blue box, indicating the next step in the process.

This example will use **HTML5**.



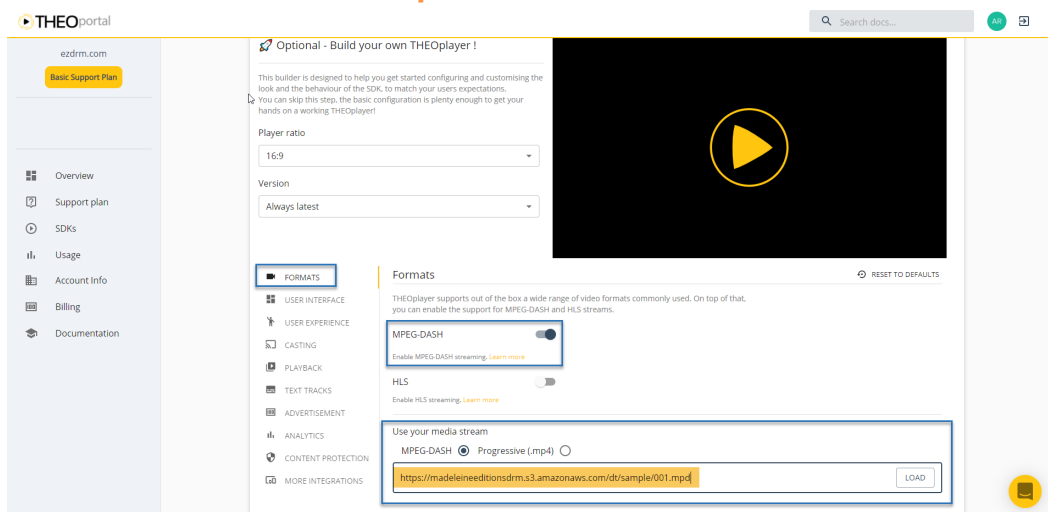
The screenshot shows the 'Create a SDK' wizard in THEOportal. The first step is 'Choose a SDK', where various platform icons are displayed. The 'HTML5' icon is highlighted with a blue box. The wizard progress bar shows four steps: 1. Choose a SDK, 2. Name your SDK, 3. Select features, and 4. Whitelist domains.

Enter the **SDK Name** and click **Next**.



The screenshot shows the 'Create a SDK' page in the THEOportal. The page has a sidebar with navigation links: Overview, Support plan, SDKs, Usage, Account Info, Billing, and Documentation. The main content area shows a progress bar with four steps: 1. Select a SDK (checked), 2. Name your SDK, 3. Select functionalities, and 4. Whitelist domains. In the 'Name your SDK' step, there is a text input field labeled 'Name' containing 'sample-mpegdash'. A 'NEXT' button is visible at the bottom right of the input field.

Under **Formats**, enable **MPEG-DASH** streaming and select **MPEG-DASH** for the media stream. Enter the **.mpd url** for the media and click **Load**.

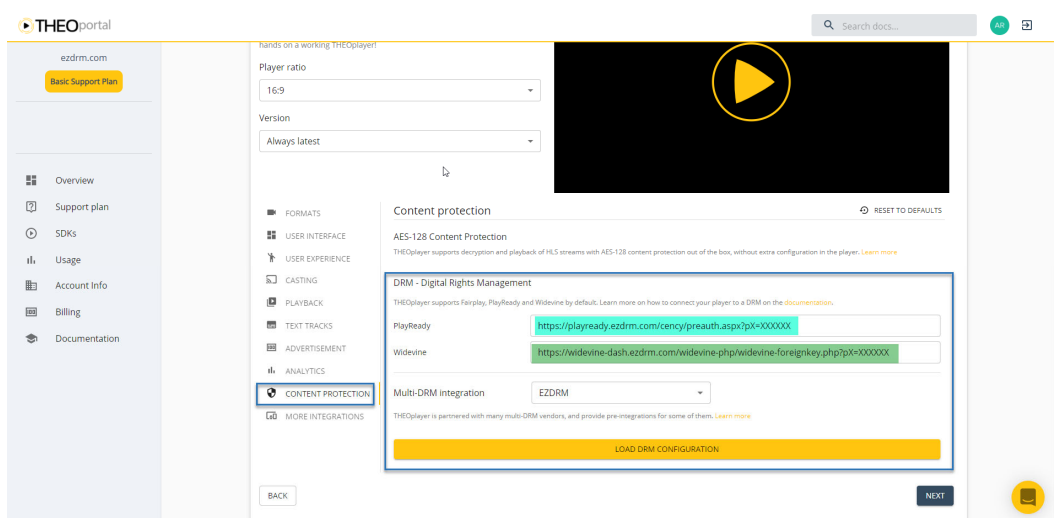


The screenshot shows the 'Optional - Build your own THEOplayer' page. The sidebar is the same as the previous screenshot. The main content area has a section titled 'Optional - Build your own THEOplayer!' with a description and a video player. Below this, there is a 'FORMATS' section. In the 'FORMATS' section, 'MPEG-DASH' is enabled (checkbox checked) and 'HLS' is disabled (checkbox unchecked). Under 'Use your media stream', 'MPEG-DASH' is selected (radio button checked) and the 'Progressive (.mp4)' option is unselected. The text input field for the media stream URL contains 'https://madeleineeditionsdrm.s3.amazonaws.com/dt/sample/001.mpd'. A 'LOAD' button is at the bottom right of the input field.

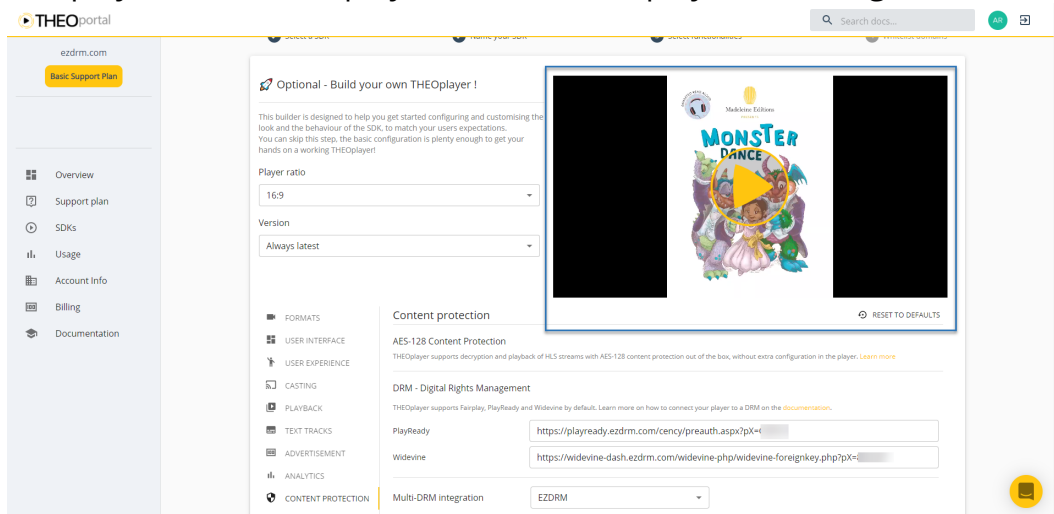
Under **Content Protection** enter the **PlayReady** and **Widevine License Acquisition URLs** (discussed in previous section).

Under Multi-DRM integration, select **EZDRM**.

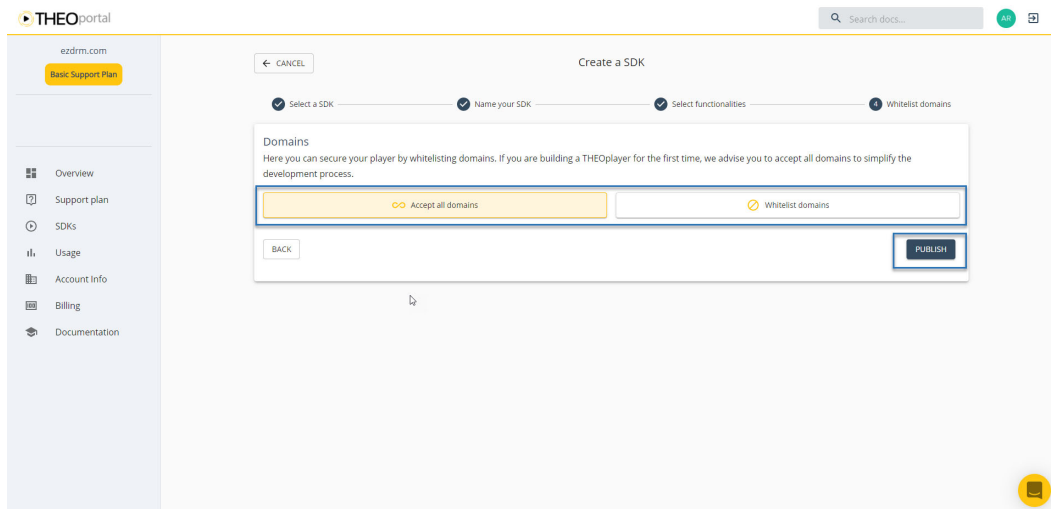
Click **Load DRM Configuration**.



The player will now display the content for playback testing. Click **Next**.



Whitelist domains if required, otherwise **Accept all domains**. Click **Publish** to publish the SDK.



THEOportal | ezdrm.com | Basic Support Plan

← CANCEL | Create a SDK

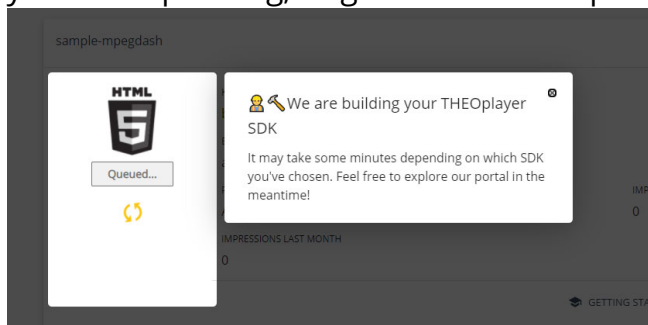
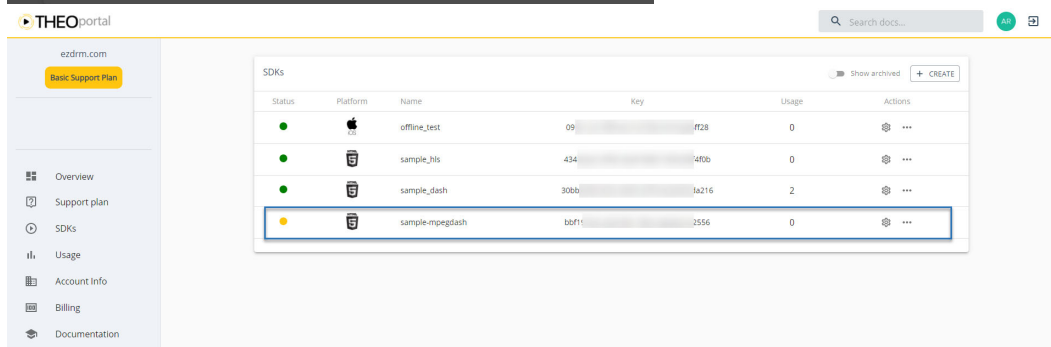
✓ Select a SDK | ✓ Name your SDK | ✓ Select functionalities | 4 Whitelist domains

Domains
Here you can secure your player by whitelisting domains. If you are building a THEOplayer for the first time, we advise you to accept all domains to simplify the development process.

☒ Accept all domains | ☐ Whitelist domains

BACK | PUBLISH

It may take a few minutes for THEOplayer SDK to publish, the Status will show yellow for pending, or green when complete.

THEOportal | ezdrm.com | Basic Support Plan

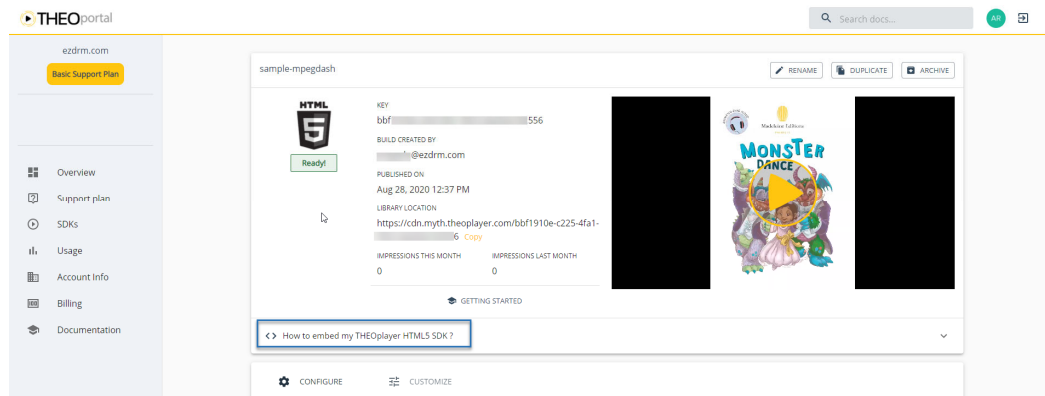
Search docs... | AR

SDKs | Show archived | + CREATE

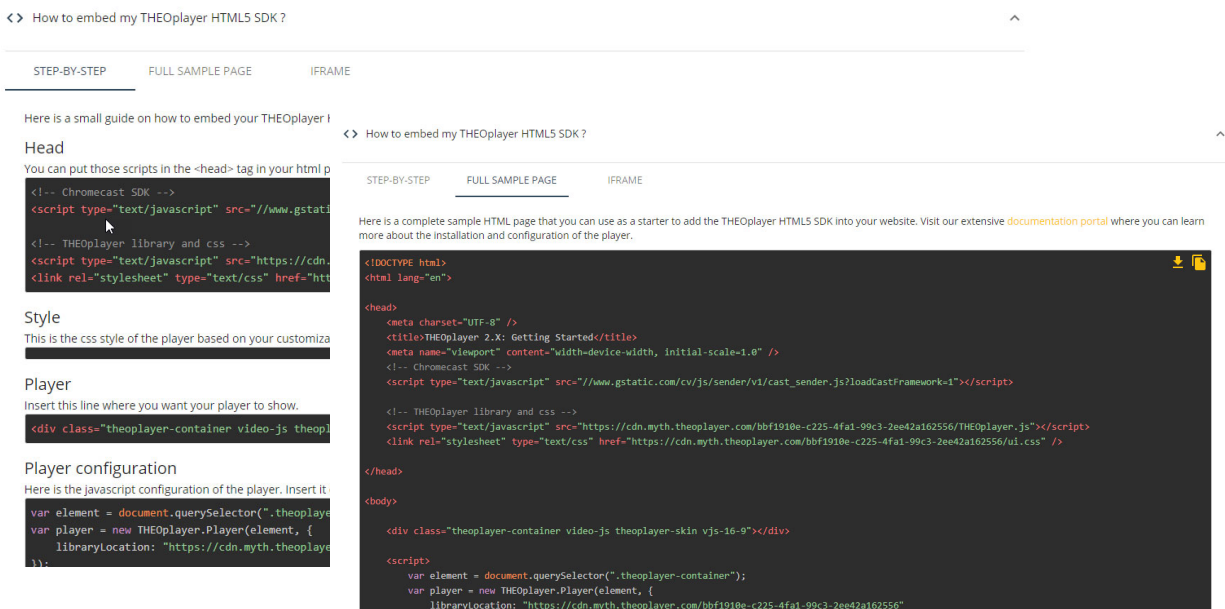
| Status | Platform | Name | Key | Usage | Actions |
|--------|----------|-----------------|--------------|-------|---------|
| ● | Apple | offline_test | 09.../728 | 0 | ⚙️ ... |
| ● | Android | sample_hls | 434...4f0b | 0 | ⚙️ ... |
| ● | Android | sample_dash | 30bb...1a216 | 2 | ⚙️ ... |
| ● | Android | sample-mpegdash | b6f1...7556 | 0 | ⚙️ ... |

Sample HTML for MPEG-DASH

More information is provided in the THEOportal for embedding HTML5 SDK, under the SDK click **"How to embed my THEOplayer HTML5 SDK?"** or visit <https://docs.portal.theoplayer.com/> to review the available documentation.



Step-by-Step and Full Sample Page examples are available.



Here is a HTML5 player configuration example:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>THEOplayer 2.X: Getting Started</title>
```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<!-- Chromecast SDK -->
<script type="text/javascript" src="//www.gstatic.com/cv/js/sender/v1/cast_sender.js?loadCastFramework=1"></script>

<!-- THEOplayer library and css -->
<script type="text/javascript" src="https://cdn.myth.theoplayer.com/30bb8a9b-b022-4e05-b07b-8cab362da216/THEOplayer.js"></script>
<link rel="stylesheet" type="text/css" href="https://cdn.myth.theoplayer.com/30bb8a9b-b022-4e05-b07b-8cab362da216/ui.css" />

</head>

<body>

<div class="theoplayer-container video-js theoplayer-skin vjs-fluid"></div>

<script>
  var element = document.querySelector(".theoplayer-container");
  var player = new THEOplayer.Player(element, {
    libraryLocation: "https://cdn.myth.theoplayer.com/30bb8a9b-b022-4e05-b07b-8cab362da216"
  });

  // OPTIONAL CONFIGURATION

  // Customized video player parameters
  player.source = {
    sources: [{
      "src": "YourMPDFile.mpd",
      "type": "application/dash+xml",
      "contentProtection": {
        "integration": "ezdrm",
        "playready": {
          "licenseAcquisitionURL": "https://playready.ezdrm.com/cency/preauth.aspx?pX=XXXXXX"
        }
      },
      "widevine": {
        "licenseAcquisitionURL": "https://widevine-dash.ezdrm.com/widevine-php/widevine-fo reignkey.php?pX=XXXXXX"
      }
    }
  ],
  },
</html>

```

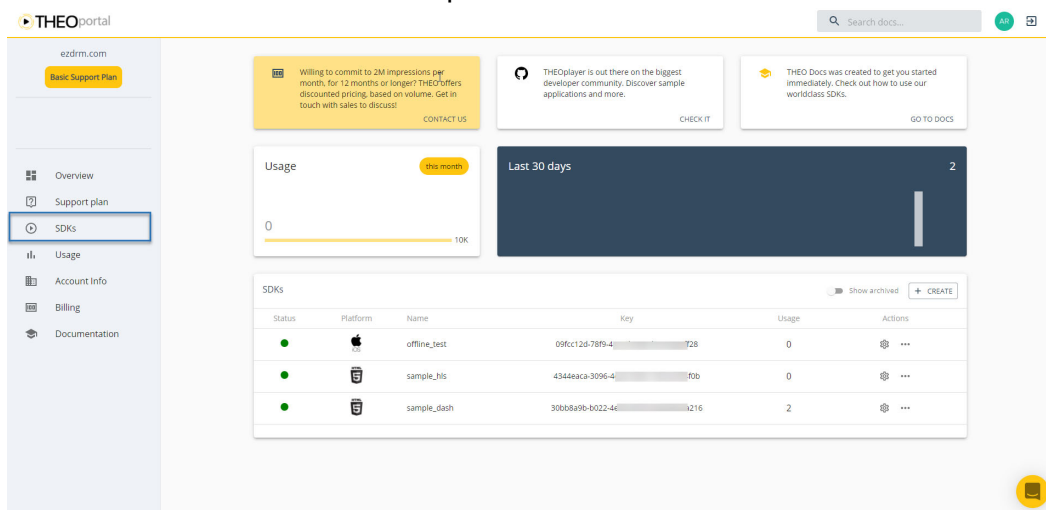
Apple FairPlay HLS Playback

Apple FairPlay requires 2 values.

1. The **.m3u8 URL**
2. **Fairplay Certificate URL**
 - This is the .cer file for your media provided by Apple. This URL should be either on your Website or CDN.

Create an HTML5 SDK

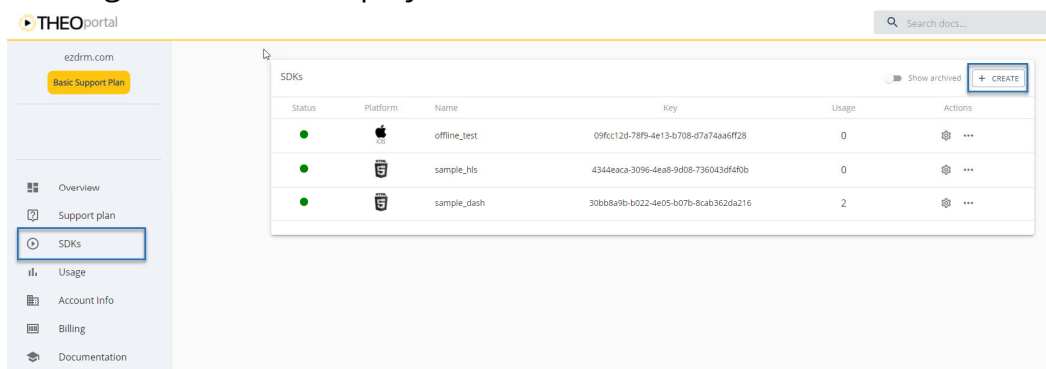
To create an SDK in the THEOportal, click on **SDKs** on the left menu.



The screenshot shows the THEOportal interface. On the left, the 'SDKs' menu item is highlighted. The main content area displays a table of existing SDKs and a 'CREATE' button in the top right corner of the table.

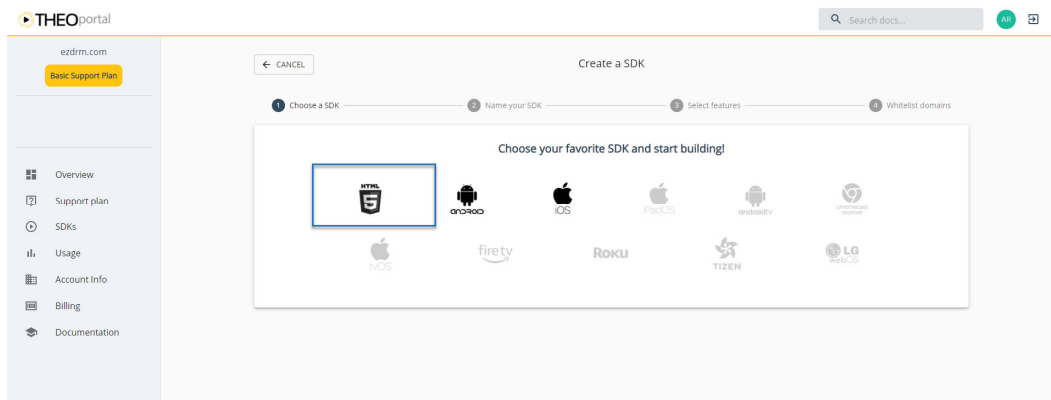
| Status | Platform | Name | Key | Usage | Actions |
|--------|----------|--------------|--------------------------------------|-------|---------|
| ● | Apple | offline_test | 09fcc12d-78f9-4e13-b708-d7a74aa6ff28 | 0 | ⚙️ ... |
| ● | Android | sample_hls | 4344eaca-3096-4c08-9d08-736043df4f0b | 0 | ⚙️ ... |
| ● | Android | sample_dash | 30bb8a9b-b022-4e05-b07b-8cab362da216 | 2 | ⚙️ ... |

Existing SDKs will be displayed, click **Create** to create a new SDK.

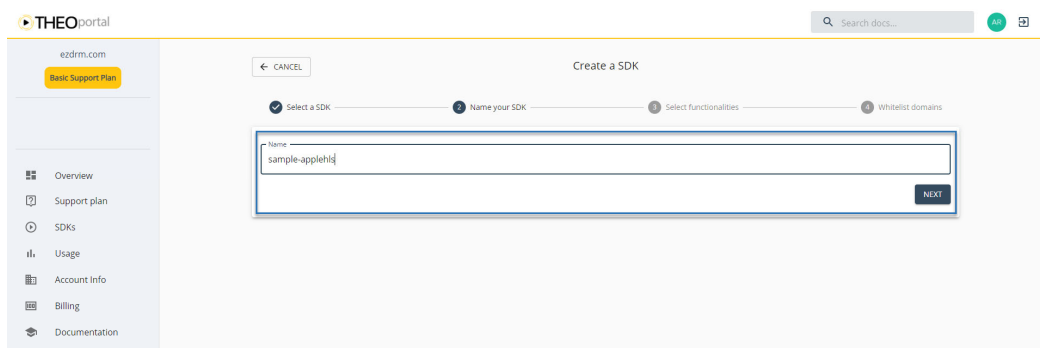


This screenshot is similar to the previous one, but the 'CREATE' button in the top right corner of the SDKs table is highlighted with a red box, indicating where to click to create a new SDK.

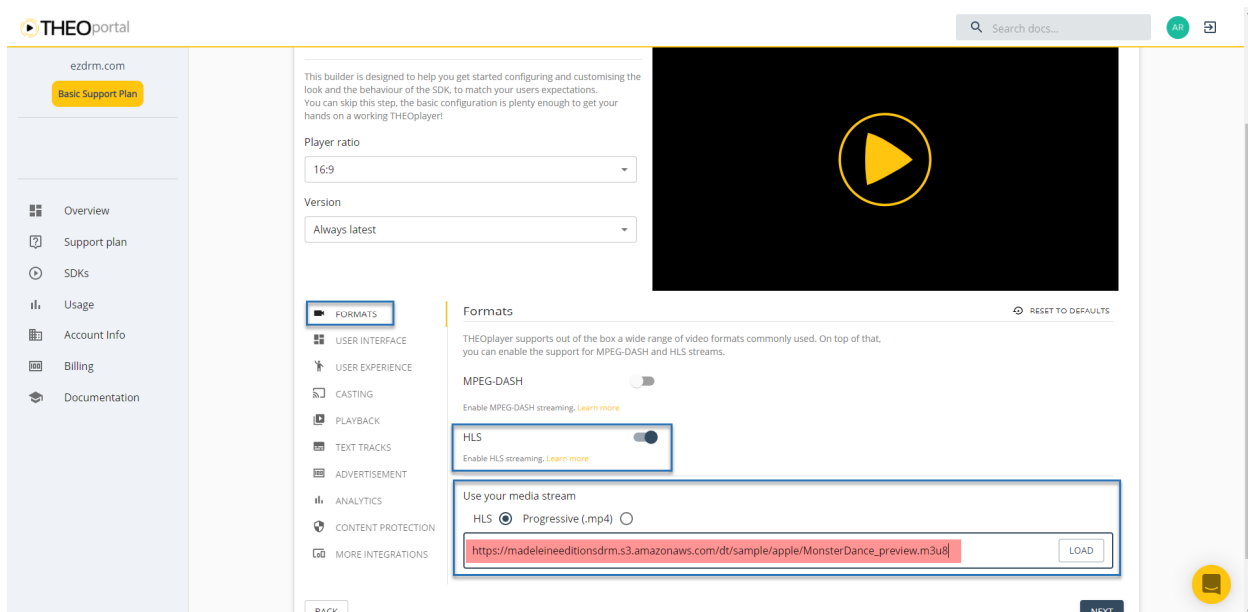
This example will use **HTML5**.



Enter the **SDK Name** and click **Next**.



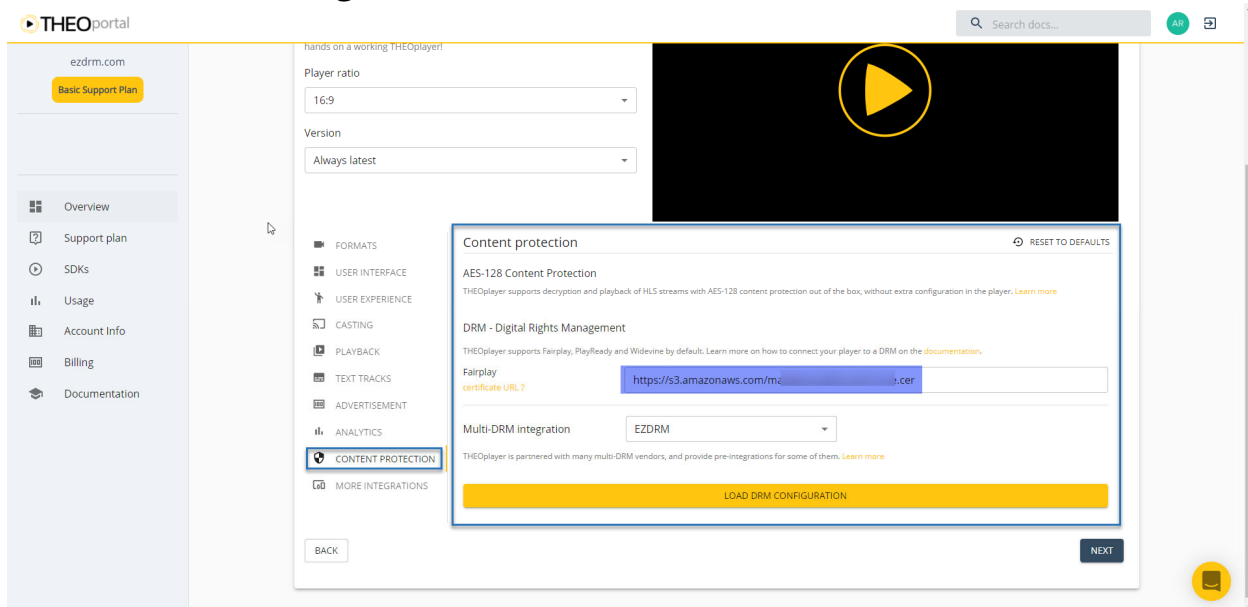
Under **Formats**, enable **HLS** streaming and select **HLS** for the media stream. Enter the **.m3u8 url** for the media and click **Load**.



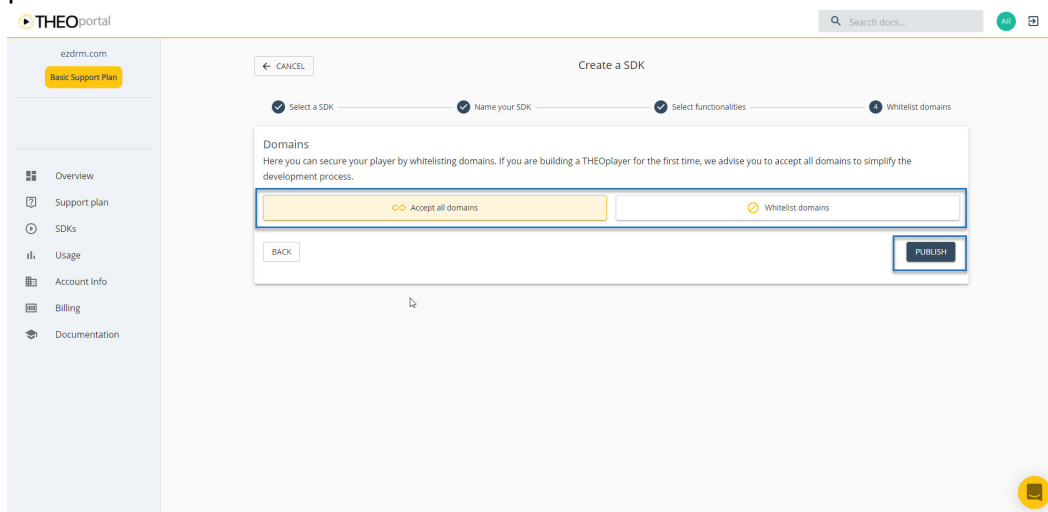
Under **Content Protection** enter the **FairPlay Certificate URL** (discussed in previous section).

Under Multi-DRM integration, select **EZDRM**.

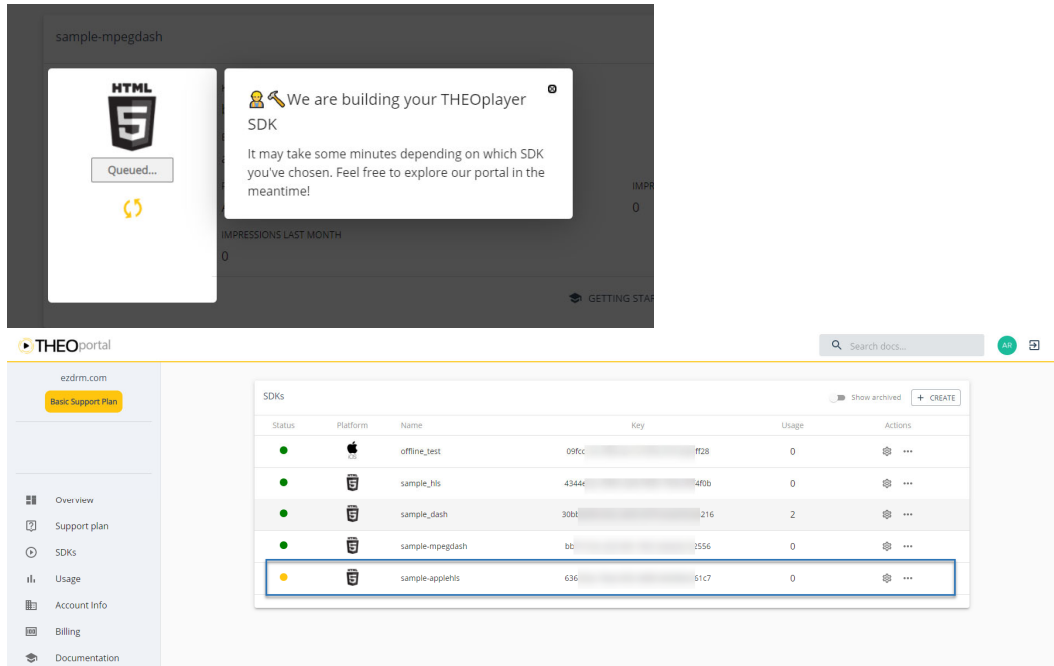
Click **Load DRM Configuration**.



The player will now display the content for playback testing. Click **Next**. Whitelist domains if required, otherwise **Accept all domains**. Click **Publish** to publish the SDK.



It may take a few minutes for THEOplayer SDK to publish, the Status will show yellow for pending, or green when complete.



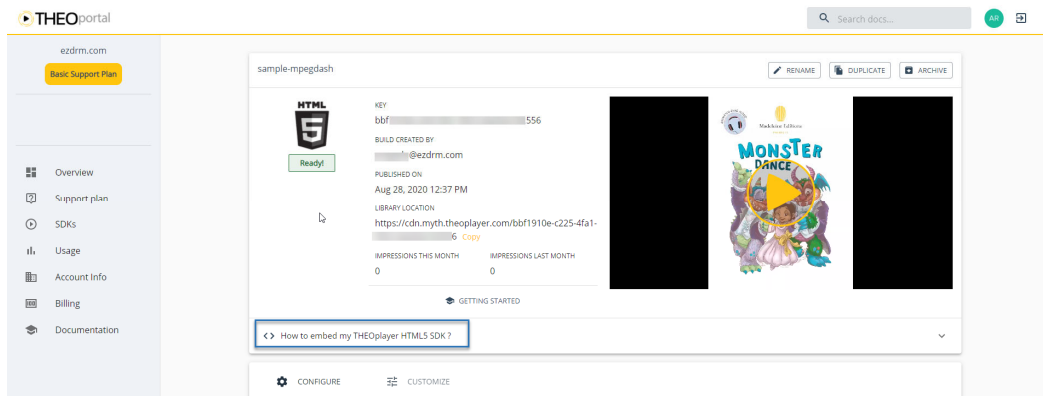
The screenshot shows the THEOportal interface. At the top, a modal window for 'sample-mpegdash' indicates it is 'Queued...' and displays a message: 'We are building your THEOplayer SDK. It may take some minutes depending on which SDK you've chosen. Feel free to explore our portal in the meantime!'. Below this, the 'SDKs' section contains a table with the following data:

| Status | Platform | Name | Key | Usage | Actions |
|--------|----------|-----------------|--------------|-------|---------|
| ● | Apple | offline_test | 09fc...f728 | 0 | ⚙️ ... |
| ● | Android | sample_hls | 4344c...4f9b | 0 | ⚙️ ... |
| ● | Android | sample_dash | 30bb...216 | 2 | ⚙️ ... |
| ● | Android | sample-mpegdash | bb...1556 | 0 | ⚙️ ... |
| ● | Android | sample-applehts | 636...51c7 | 0 | ⚙️ ... |

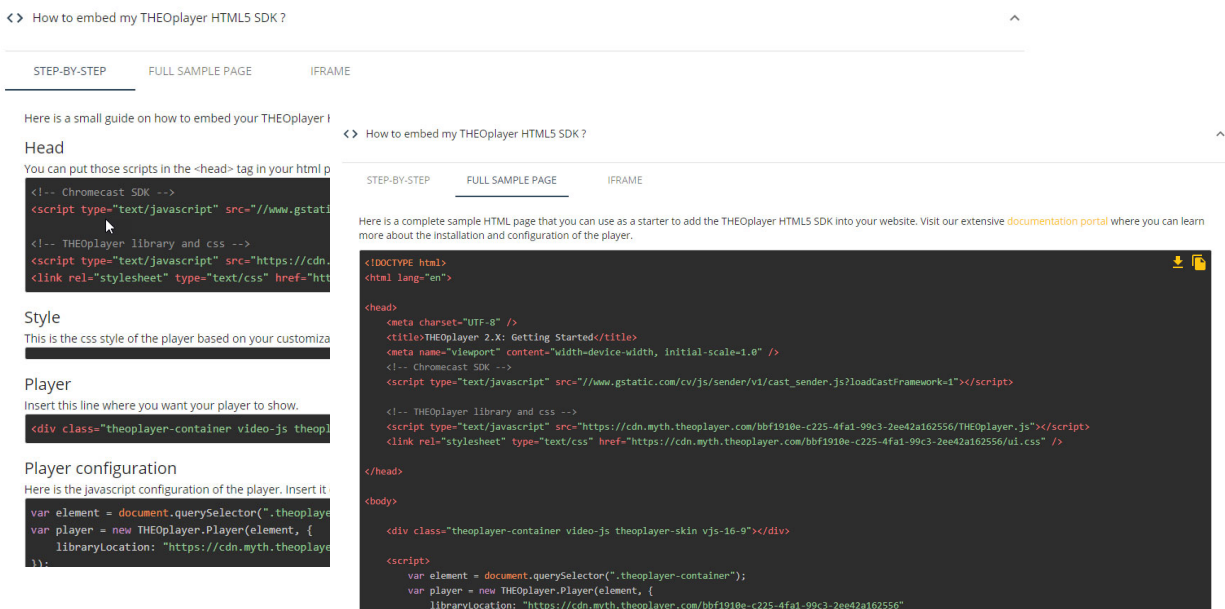
The 'sample-applehts' row is highlighted with a blue border, indicating its status is pending (yellow dot).

Sample HTML for HLS

More information is provided in the THEOportal for embedding HTML5 SDK, under the SDK click **"How to embed my THEOplayer HTML5 SDK?"** or visit <https://docs.portal.theoplayer.com/> to review the available documentation.



Step-by-Step and Full Sample Page examples are available.



Here is a HTML5 player configuration example:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>THEOplayer 2.X: Getting Started</title>
```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<!-- Chromecast SDK -->
<script type="text/javascript" src="//www.gstatic.com/cv/js/sender/v1/cast_sender.js?loadCastFramework=1"></script>

<!-- THEOplayer library and css -->
<script type="text/javascript" src="https://cdn.myth.theoplayer.com/4344eaca-3096-4ea8-9d08-736043df4f0b/THEOplayer.js"></script>
<link rel="stylesheet" type="text/css" href="https://cdn.myth.theoplayer.com/4344eaca-3096-4ea8-9d08-736043df4f0b/ui.css" />

</head>

<body>

<div class="theoplayer-container video-js theoplayer-skin vjs-16-9"></div>

<script>
  var element = document.querySelector(".theoplayer-container");
  var player = new THEOplayer.Player(element, {
    libraryLocation: "https://cdn.myth.theoplayer.com/4344eaca-3096-4ea8-9d08-736043df4f0b"
  });

  // OPTIONAL CONFIGURATION

  // Customized video player parameters
  player.source = {
    sources: [{
      "src": "YOURM3U8URL.m3u8",
      "type": "application/x-mpegurl",
      "contentProtection": {
        "integration": "ezdrm",
        "fairplay": {
          "licenseAcquisitionURL": "https://s3.amazonaws.com/XXXXXXXXXdrm/me.cer"
        }
      }
    }
  ]},

```

Additional Information

For additional questions and comments please contact simplify@ezdrm.com.