



Kaltura Player Toolkit

FOSDEM 2015

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Kaltura Player Toolkit

- Architecture & Feature Overview
- Cross Platform Player Experiences
- Open Source & Community

HTML5 Wins.






by Andres Alvarez

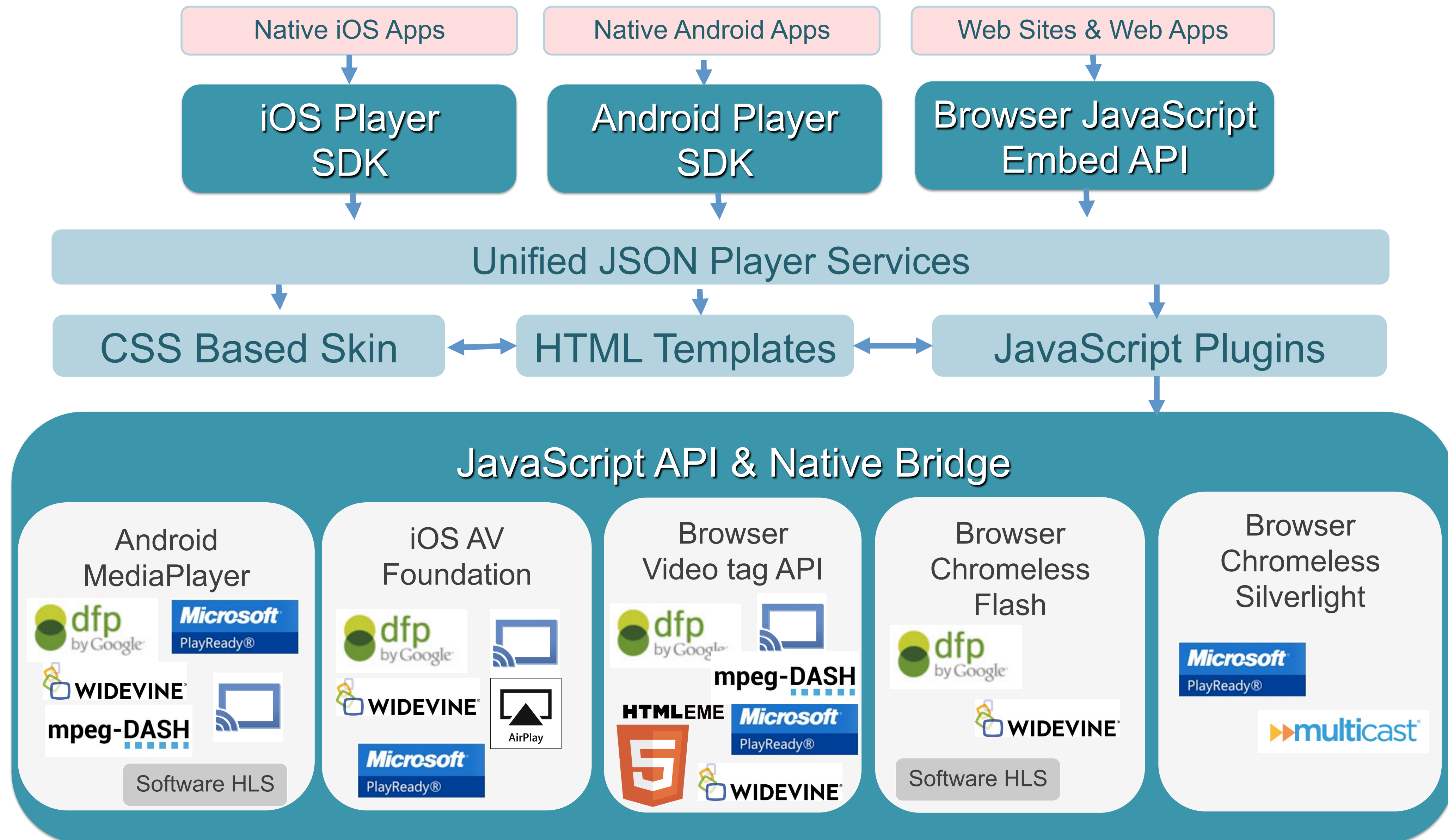
But mobile HTML5 is fragmented and trailing desktop features







Key features missing in mobile

Feature			 (best case)
CSS Skin & HTML Controls	X, (iPad no FS)	X 2.x, (4.0 +)	✓
JavaScript Plugins (Business Logic)	✓	✓	✓
HLS Adaptive Live & VOD	✓	> 4.4 HLS issues (4.4)	✓ (software HLS)
MPEG-DASH	X	> 4.1 (4.0+ chrome)	✓
AutoPlay	X	X	✓
Full Screen & Non-Native Controls	X	✓	✓
Volume Control	X	X	✓
Ads with controls take over	X	✓	✓
Offline Playback	X	X	✓
Chromecast	X	X (4.4)	✓
AirPlay	✓	X	X
DRM and Content Controls	X	X (4.4; widevine only)	Modular DRM: Widevine, PlayReady soon

Player Toolkit Architecture Overview



Extend mobile support w/ Kaltura player toolkit

Feature				
CSS Skin & HTML Controls	X, (iPad no FS)	✓	X 2.x, (4.0 +)	✓
JavaScript Plugins (Business Logic)	✓	✓	✓	✓
HLS Adaptive Live & VOD	✓	✓	> 4.4 HLS issues (4.4)	✓ (software HLS)
MPEG-DASH	X	(via partners)	> 4.1 (4.0+ chrome)	(via partners)
AutoPlay	X	✓	X	✓
Full Screen & Non-Native Controls	X	✓	✓	✓
Volume Control	X	✓	X	✓
Ads with controls take over	X	✓	✓	✓
Offline Playback	X	(Coming soon)	✓	(Coming soon)
Chromecast	X	✓	X	✓
AirPlay	✓	✓	X	X
DRM and Content Controls	X	Widevine, PlayReady soon	✓	Widevine, PlayReady soon

Player Toolkit

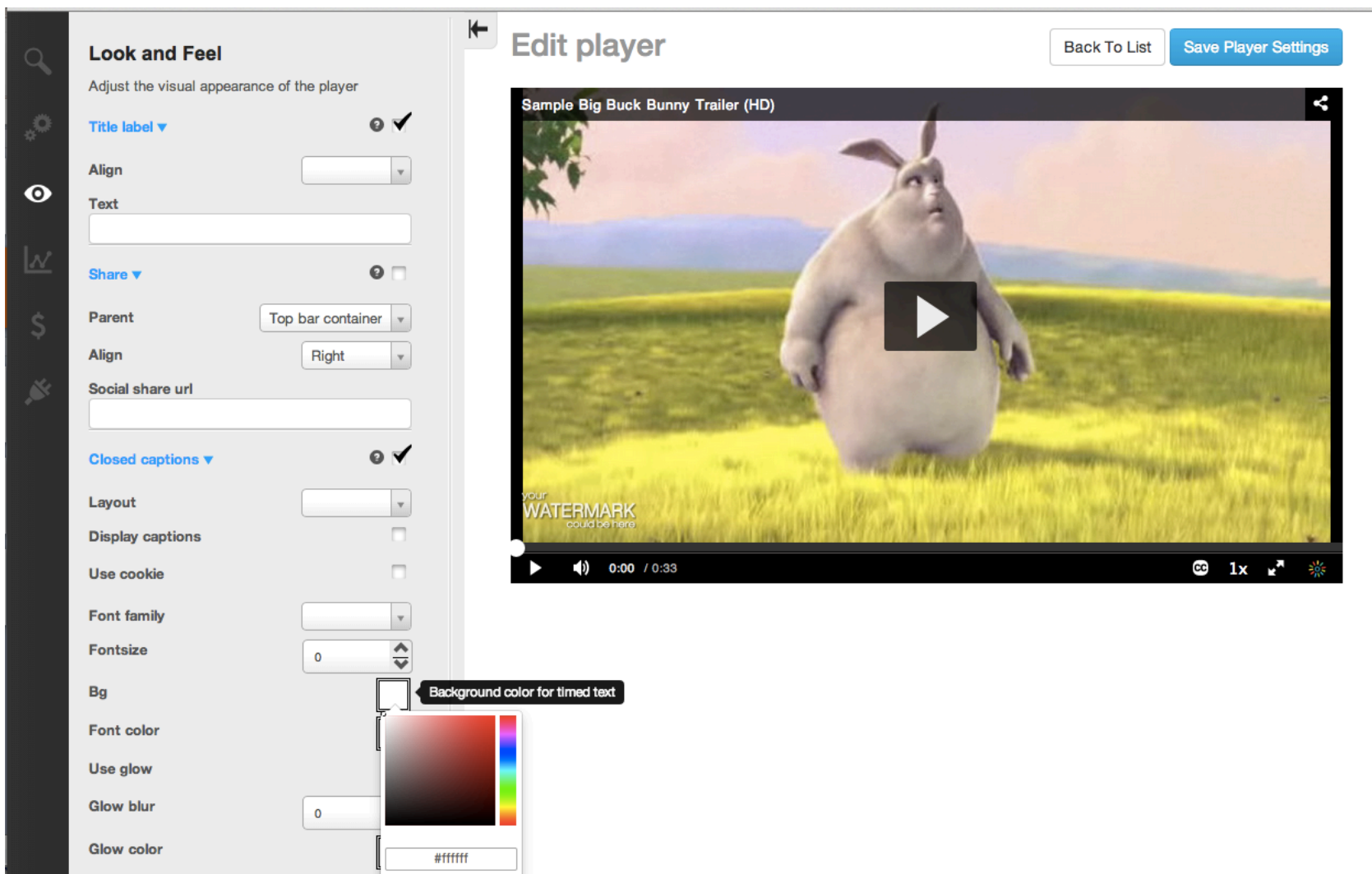
- High performance full featured cross platform player framework
 - Most players display in 1 second or less
- Configure skins once for HTML5, Flash, Android, iOS native, Smart TVs, and Chromecast with standard HTML & CSS
- Configure advertising, analytics, multi-DRM, and other features once with simple JSON config
- Stand-alone player - deploy the player with Kaltura asset management or with your own or with both
- HLS normalization for HLS everywhere

See all the features in action – player.kaltura.com



Seamless customization across integration levels

Visual Player Studio



Edit player JSON (cloud or local)



Edit: Simple Player

```
6  "controlBarContainer": {
7    "plugin": true
8  },
9  "scrubber": {
10   "plugin": true
11 },
12 "largePlayBtn": {
13   "plugin": true
14 },
15 "playHead": {
16   "plugin": true
17 },
18 "playPauseBtn": {
19   "plugin": true
20 },
21 "volumeControl": {
22   "showSlider": true,
23   "accessibleControls": false,
24   "accessibleVolumeChange": 0.1,
25   "plugin": true
26 },
27 "durationLabel": {
28   "plugin": true
29 },
30 "currentTimeLabel": {
31   "plugin": true
32 },
33 "keyboardShortcuts": {
34   "volumePercentChange": "0.1",
35   "shortSeekTime": "5",
36   "longSeekTime": "10",
37   "volumeInKey": "38"
```



CSS / Templates / JS

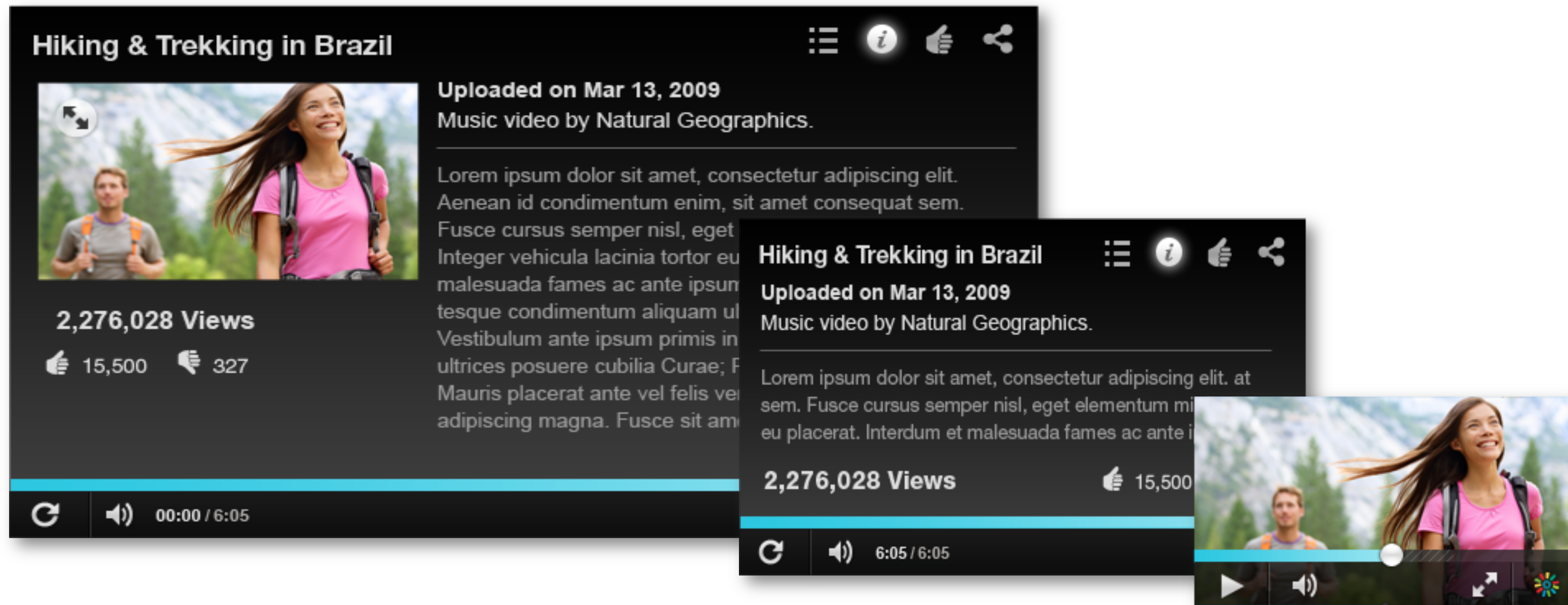
```
EmbedPlayer.css
1 .mwPlayerContainer video {
2   width: 100%;
3   height: 100%;
4 }
5 .mwPlayerContainer.fullscreen {
6   position: absolute !important;
7   width: 100% !important;
8   height: 100% !important;
9   z-index: 9999;
10  min-height: 100%;
11  top: 0;
12  left: 0;
13  margin: 0;
14 }
15 .mwPlayerContainer {
16   position: relative;
17   width: 100%;
18   height: 100%;
19   overflow: hidden;
20 }
21 .videoHolder {
22   position: relative;
23   overflow: hidden;
24   width: 100%;
25   height: 100%;
26   background: #000;
27 }
28 .videoDisplay {
29   position: absolute;
30   top: 0; left: 0;
31   width: 100%;
32   height: 100%;
33 }
34 .maximize {
35   width: 100%; height: 100%;
36 }
37 .mwEmbedPlayer {
38   cursor: pointer;
39   width: 100%;
40   height: 100%;
41 }
42 
```

```
<div class="related-top">
<div class="left-related related-third">
  <div class="related-replay related-button-d
    <i class="icon-replay"></i>
    Replay video
  </div>
</div>
<div class="center-related related-third">
  <p class="related-title">The next video will
  <div style="height: 50px; vertical-align: r
    <span class="related-time-dol remaining"
  </div>
  <br/>
  <p>
    <button class="related-toggle-autoplay"
      data-click="toggleAutoContinue" >Turn o
    </button>
  </div>
<div class="right-related related-third">
  <div class="related-watch-next related-butto
    >" data-click="changeMedia" >
    Watch next video
    <i class="icon-play"></i>
  </div>
</div>
</div>

defaultConfig: {
  parent: "topBarContainer",
  order: 5,
  align: "right",
  tooltip: "Share",
  showTooltip: true,
  displayImportance: "medium",
  usePreviewPlayer: true,
  previewPlayerEnabled: true,
  socialShareEnabled: true,
  socialShareURL: "smart", // "parent" / "http
  socialNetworks: "facebook,twitter,googleplus
  shareOffset: true,
  templatePath: "components/share/share.tpl.h
},
iconBtnClass: "icon-share",
setup: function () {
  this.setupPlayerURL();
  this.addBindings();
}
},
setupPlayerURL: function () {
  var shareURL = null;
  switch (this.getConfig('socialShareURL')) {
    case 'smart':
      shareURL = this.getSmartURL();
      break;
    case 'parent':
  
```

Multi-Screen Experience

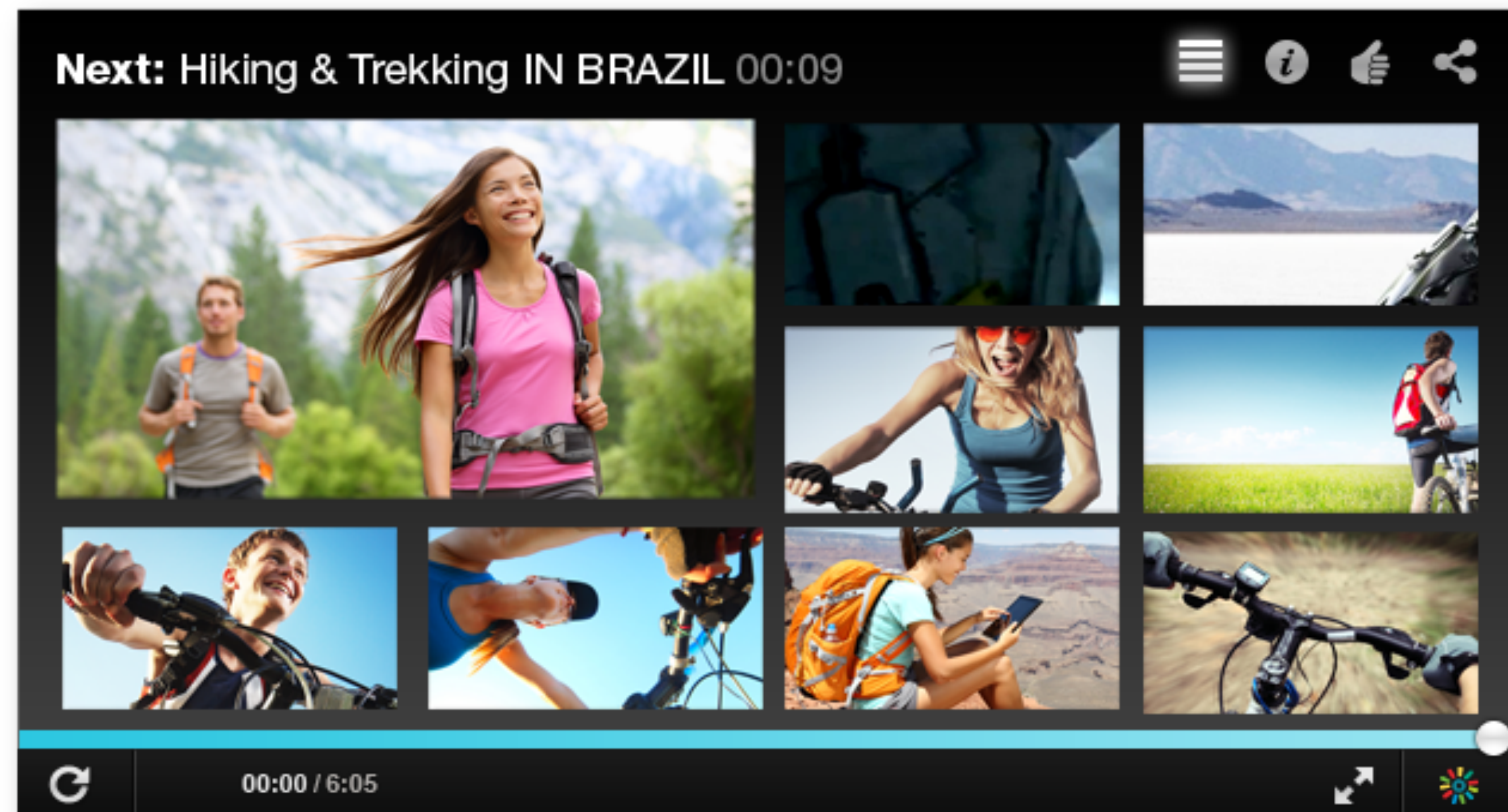
Responsive Player Layout & Components



Demo – re-size player

Related Videos

- Enhanced related videos interface
- Flexible options for related video fulfillment
- Events for tracking conversion / retainment
- Works with external recommendation engines



Demo – related videos

Adaptive Everywhere Streaming Support

🚦 Chromeless Flash HLS

- 🚦 HLS Flash for Desktop browsers
- 🚦 Software HLS solves Android fragmentation
- 🚦 Simplified live broadcast and vod ad-stitching workflows

🚦 MPEG-DASH:

- 🚦 Encrypted Media Extension support web delivery of DRM and content controls
- 🚦 Multi-track audio
- 🚦 More detailed analytics on quality of services metrics



Demo – multi-track audio + flash / android software HLS

Kaltura Play – Native SDK app

- Useful for quickly testing native features (DRM, custom adaptive streaming, html controls)
- Being used where clients can't quickly build their own app.
- Enables easy use of chromecast on iOS etc.

Kaltura Play

By Kaltura Inc.

Open iTunes to buy and download apps.

[View More by This Developer](#)



[View in iTunes](#)

+ This app is designed for both iPhone and iPad

Free

Category: [Entertainment](#)

Updated: Jan 14, 2015

Version: 0.1.2

Size: 6.2 MB

Language: English

Seller: Kaltura, Inc.

© Kaltura Corp.

[Rated 4+](#)

Compatibility: Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.

Customer Ratings

Description

The "Kaltura Play" app enables seamless delivery of native player experiences from web or native app contexts. Fully integrated into the Kaltura player toolkit, and associated Kaltura platform services it enables robust content protection with industry standard DRM systems, robust analytics across analytic providers and native ad network

[Kaltura Inc. Web Site](#) > [Kaltura Play Support](#) >

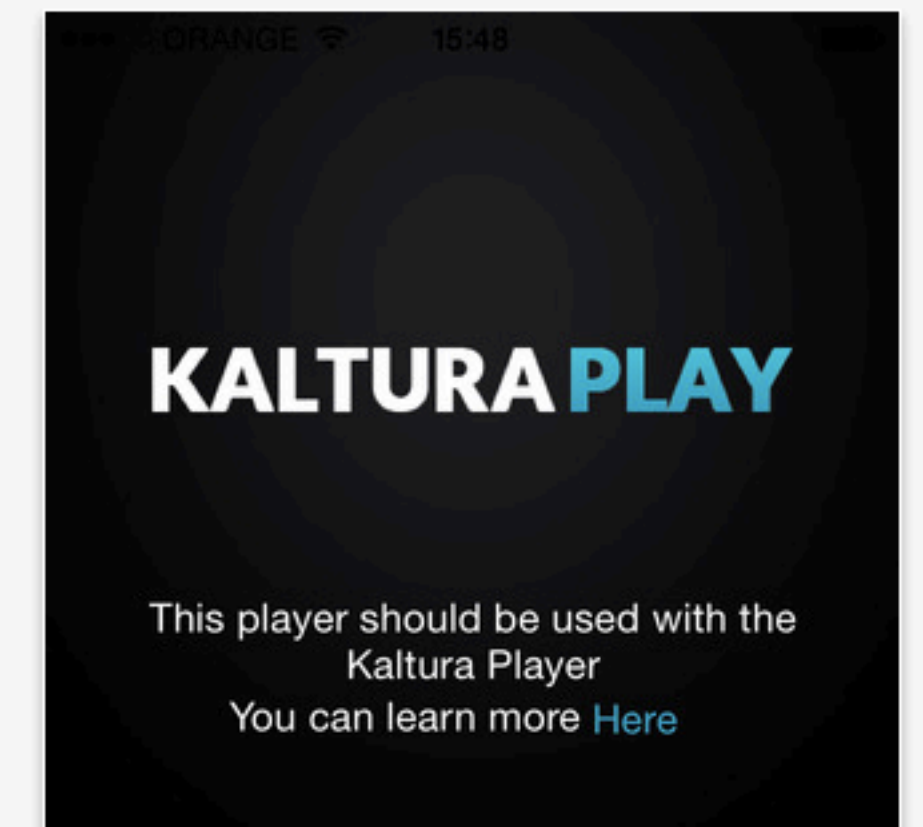
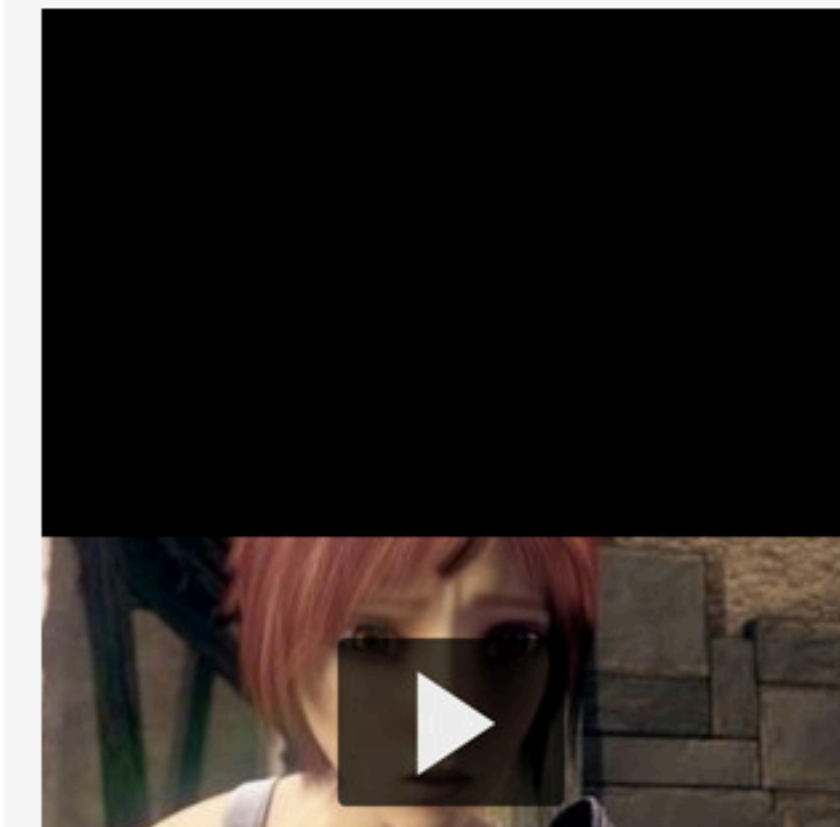
[...More](#)

What's New in Version 0.1.2

Bug fixes

Screenshots

iPhone | iPad



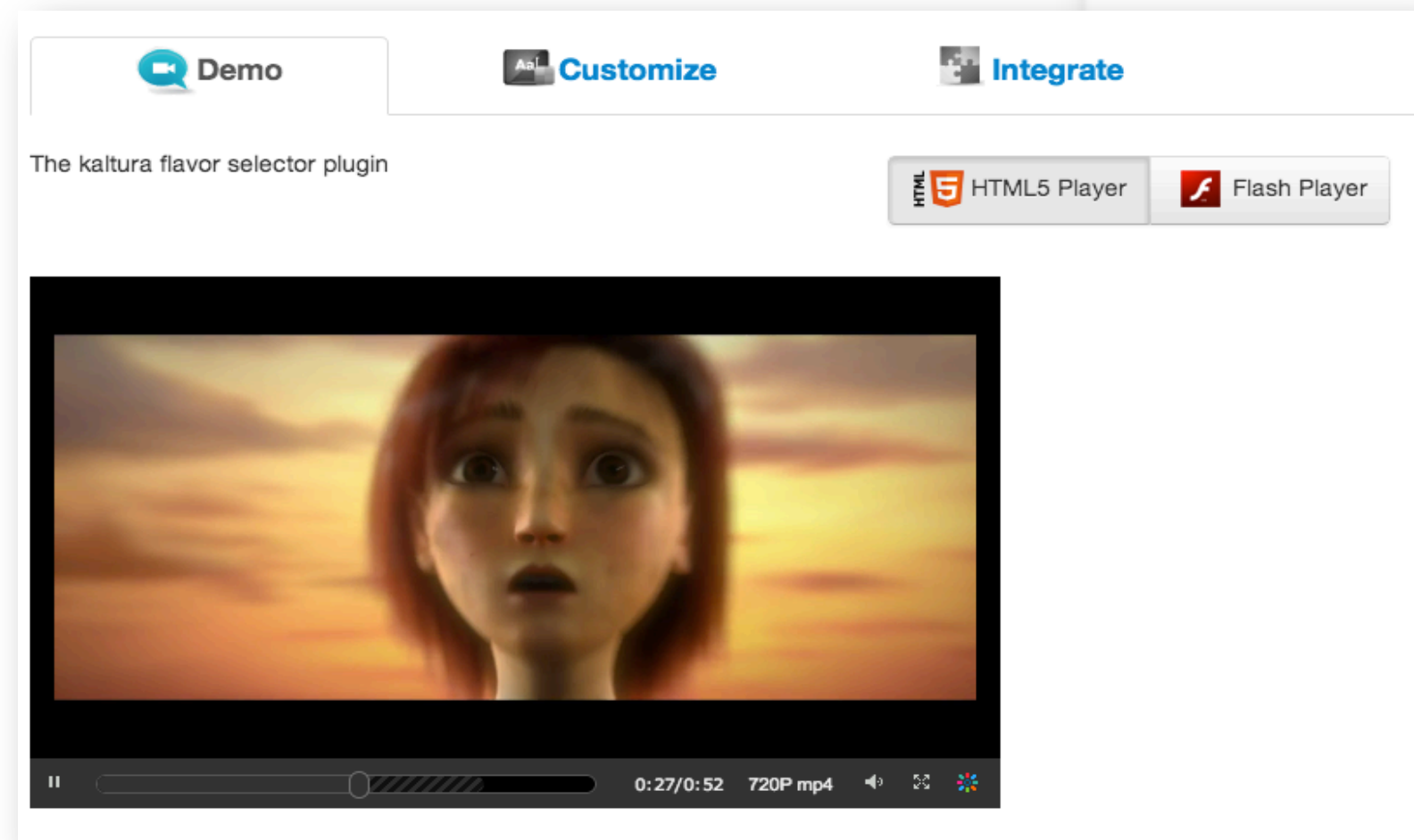
Open source & Community

Player Toolkit and Open source

- 🚧 Open source is hard ;)
- 🚧 Project fully hosted on github in conjunction Kaltura server:
 - 🚧 <https://github.com/kaltura/mwEmbed>
 - 🚧 <https://github.com/kaltura/player-sdk-native-android>
 - 🚧 <https://github.com/kaltura/player-sdk-native-ios>
- 🚧 Pull requests from github and from wikimedia project usage.
- 🚧 Setting good community contribution guidelines is important!
- 🚧 Small code changes a lot easier to handle then big ones.
- 🚧 Focused on fostering 3rd party integrations [detailing API](#).

Learn More at player.kaltura.com

Demos



Code Examples

industry in flexibility, ease of customization, plug-in offerings and
both both HTML5 and Flash with the same configuration, bringi
ss platforms. We invite to explore the vast feature set of the K
s, and use the HTML5 / Flash player switch tool present on alr

Auto Embed with SEO

You can include SEO in a target div and still make use of autoEmbed directly preceding the target.

```
1. <div id="myVideoContainer" itemprop="video" itemscope itemtype="http://schema.org/VideoObject" >
2.     <div id="myVideoTarget" style="width:400px;height:330px;">
3.         <!-- SEO and video metadata go here -->
4.         <span itemprop="description" content="test folgers coffe"></span>
5.         <span itemprop="name" content="FolgersCoffe.mpeg"></span>
6.         <span itemprop="width" content="400"></span>
7.         <span itemprop="height" content="300"></span>
8.     </div>
9. </div>
10. <script src="http://cdnapi.kaltura.com/p/{partnerId}/sp/{partnerId}00/embedIframeJs/uiconf_id/{uiConfId}/partner_id/{partnerId}/entry_id/{entryId}/playerId/myVideoTarget?autoembed=true"></script>
```