

VEEPLAY
The native player SDK

Video on mobile is booming

After the revolution of online video, the media industry is experiencing the next grade of a radically changing behavior of video consumption: Its all going mobile

- The share of videos being watched via smart devices has been increased by 400% since 2012.
 This trend is projected to continue. (Ooyola)
- Global mobile video traffic will rise by **780%** until 2018 (Cisco)
- **30%** of money spend on digital video advertising was spend on mobile video in 2014 rising to more than **50%** by 2018 (eMarketer)
- Click-through rates of mobile video ads are 10x higher than on desktops.

The role of player technologies for mobile video applications

The technological requirements for player technologies are rising simultaneously to the rise of mobile video consumption, resulting in a complex landscape of different technological challenges: Todays players need to reliably support a wide range of Android devices and versions with different streaming formats, keep pace with the increased demand for different DRM security solutions, offer innovative monetization while still being compliant with scalable advertising standards and make sure to allow cutting edge performance and usage tracking to maximize the ROI of video applications.

In the past, publishers have tried to tackle these challenges with player solutions based on web technologies like HTML5. While coming with the advantage of supporting all operating systems and platforms with only one technology, they are lacking in the areas of stability, fullscreen support and advertising.

Veeplay's product lineup is made up of a suite of mobile SDKs developed for iOS, Android and Windows devices. The SDKs are built in a similar fashion to a fully featured framework capable of supporting a wide range of plugins making it easy to be adapted to specific customer needs and requests.

By doing so, Veeplay is the only technology available on the market offering a complete set of features to handle all aspects relevant for a secure, reliable and profitable distribution and monetization of videos in mobile apps.

A more detailed look on the Veeplay player features

Full IAB advertisement support – Veeplay is certified by the Interactive Advertising Bureau and so compliant with Vast 1.0, 2.0 and 3.0 as well as MRAID and VMAP. Video ads can be delivered as Prerolls, Midrolls, Postrolls or bumpers. Multiple ads can be grouped in a single ad-break, and the server can also deliver fallback ads that run if the main ads are unavailable at the moment. Video ads can also be configured to be skippable after custom time intervals. Expandable ads are supported via the Media



Player's implementation of MRAID 1.0.

Apart from industry standardized ad tracking, this allows the easy integration with any ad network or ad server in the world.

Customizable design – To match the video player with any brand identity, the UI of the Veeplay player is 100% customizable. It even lets you configure video controls individually for each individual video you display in a session to have branded experiences according to specific content. As an alternative Veeplay offers a predefined set of controls for a beautiful UI.

Real-Time event tracking system – Events are triggered in real time by the player on key events related to video viewing, such as when the video has loaded and has begun playing, when the user seeked back or forward, when playback has reached a certain marker (such as midway or 25%) or when playback has reached a user-defined interval in seconds.

These events can be used to trigger actions in the app or be captured by any analytics system on the market. For the most popular analytics solutions such as Google Analytics, Veeplay offers pre-integrated plugins.

Instant remote JSON configuration – Configuring the player can be done in two ways: natively within the app, using the player's exposed API functionality or remotely, over the Internet, using a simple JSON data structure that's at the same time extremely flexible and powerful. Remote configuration is a feature that brings Veeplay's native player solution very close to traditional HTML5 / Javascript solutions that are usually configured in the same way, resulting in a fast time to market, an easy integration process and simple player management.

Digital Rights Management (DRM) – Veeplay offers out of the box support for studio approved and industry leading DRM solutions like Verimatrix, Marlin based Expressplay or Pallycon DRM. This allows to securely distribute premium content.

Flexible renderer to solve Android fragmentation – Offering adaptive playback support on Android has proved to be a hassle, using the tools provided by the Android SDK. Available for devices with Android 4.1+, Veeplay provides a stable, high-performance video renderer and decoder implementation that offers stable support for HLS, HLS-AES, DASH and SmoothStreaming on a wide range of devices and without fragmentation issues.

Chromecast support – Adding Chromecast support to a video application is a long and complex process of the app development. The Veeplay Cast Plugin offers Chromecast support inside the player component including Chromecast ads. This reduces Chromecast integration time from several weeks to several minutes.

Custom Interactive overlays – With Veeplay Player, it's easy to configure custom video splash images that entice the user to press the play button and increase engagement. Ads support the OBA framework for self-regulation for online behavioral advertising and can be configured to display the ad options icon.

Images or HTML content can be configured to be displayed over the video, for its entire duration or for a specific time interval, with full transparency supported. This opens even further publisher content branding options. Overlays can also be configured to perform specific actions when tapped.

The overlay system is fully extendible by app developers, so in addition to overlays that are available out of the box, like images and HTML, the video player is able to display any content at any time over the video content. Details about the upcoming video, related videos or the currently running video playlist can be easily implemented using Veeplay Player.



3rd **party service integrations** – Veeplay Player can render video content from Youtube and Vimeo out of the box, with full quality adjustments and autoplay functionality as offered by the specific provider.

Easy player integration – Available as a CocoaPod for iOS, Maven artifact for Android or Nuget package for the Windows platform, initial integration can be achieved with only a few lines of code in under 1 hour. Integration overview docs are available in the Documents & Resources section of the Veeplay dashboard upon signup.

Flexible architecture – The Veeplay SDK provides a plugin system for hooking into the most importants parts of the playback system. Do you have your own video renderer that you want to plug into Veeplay in order to access the overlay and ads functionality? Do you use a DRM solution that is not currently officially supported by Veeplay? Are your video URLs protected by a proprietary access service that you have to call at runtime? Building a Veeplay plugin is easy and focused on the tasks at hand.

Data sheet

iOS 5+, Android 3.2+, Windows 8.1+

- iOS platform: H.264 Baseline Profile Level 3.0 video.
 MPEG-4 Part 2 video (Simple Profile). SRT / WebVTT subtitles support Multitrack HLS support.
- Android platform: H264 AVC in HLS, DASH, 3GP and MP4 containers.
 MPEG-4 Part 2 video (Simple Profile).
 VP8 in WEBM or MKV containers. SRT / WebVTT subtitles support
- Windows platform: H263 and H264, VC-1 and WMV9 / AAC, AC3, WMA in HLS, MP4 or ASF containers.

VMAP 1.0 Compliance

- o linear and nonlinear ad break types
- o support for repeating ad breaks
- o honors the allowMultipleAds parameter, with fallback support for selecting the first ad, a random one or dropping the break altogether
- o honors the followRedirects parameter by looking inside wrapper ads
- o supports both embedded and remotely retrieved VAST data
- o tracking events enabled for breakStart, breakEnd and error
- o supports empty ad breaks break start and end events are still triggered
- o replaces [ERROR CODE] in error tracking URLs
- supports empty VMAP responses

VAST 1.0, 2.0 and 3.0 Compliance



- o supports Linear Ads (pre-roll, mid-roll and post-roll)
- o supports Skippable Linear Ads
- o supports Non-linear Ads (static image, script, iframe, HTML content)
- supports Ad Pods and offers fallback strategies for VAST 1.0 and 2.0 (selecting the first ad as a pod and treat the rest of the ads as the buffet, treat all the ads as part of a single pod or drop the ads and track an error)
- o supports ad buffet
- o follows Wrapper ads and honors VMAP parameter followRedirects
- o accepts Industry Icons (such as for in-ads notice supporting OBA self-regulation)
- o supports Linear and Nonlinear creatives
- o selects adequate media file based on device type and bandwidth
- o if ads request to open an HTTP URL, a browser frame will be provided in-app by the player support for Linear ClickThrough and ClickTracking
- support for tracking linear events (creativeView, start, firstQuartile, midpoint, thirdQuartile, complete, mute, unmute, pause, resume, fullScreen, exitFullscreen, closeLinear, skip, progress)
- o accepts HTML resources, Iframe resources, Javascript resources and static resources, in this order of preference
- o supports clickThrough and clickTracking
- o honors minSuggestedDuration attribute and fallsback to configurable duration
- o support for tracking non-linear events (creativeView, start, fullscreen, exitFullscreen, expand, collapse, close)
- o accepts no-ad responses
- has support for Fallback node VAST extension (player tracks just impression for fallback ad)

VMAP and VAST Player Configuration Settings

- o custom User-Agent setting, to emulate specific browsers and support features like frequency capping
- o fully configurable video controls settings for ad units as well as main media
- o video scaling settings for ad units as well as main media
- VAST icon support settings (icon relative height, fade-in duration)
- VAST skippable ads settings (time offset to enable skipping, indicator position and visual configuration settings)
- o real-time, configurable countdown to next media



- o configurable, global ad break positions (to enable VMAP position-based ad breaks)
- o customizable close button for non-linear ads, supports player-defined skip offset
- offers fallback strategies in case no ad pods could be interpreted (VAST 1.0 and 2.0) or in case that VMAP restricts multiple ads and multiple ads are interpreted

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