Eko Technical Overview

The Eko Video Player

The Eko Video Player is an HTML5 and Javascript player that offers the same control functions as other streaming video players: start, stop, pause, volume, full-screen, etc.

In addition, the Player manages the seamless delivery of interactive video content:

- **Stream-switching based on any data source** - not only can the video story be shaped by an end viewer's input, but also by any other data source such as sensor input, user cookie data (such as purchase history or demographic info), geographic location, and more.
- **Seamless switching and transitions** - the video progresses through different paths without any interruption to the audio or video tracks.
- **Bandwidth efficiency** - with a sophisticated and selective background process, the Eko Player intelligently selects video segments to preload based on the viewer's potential paths, ensuring a buffer-free experience without clogging the network.
- **Adaptive bitrate** - to account for fluctuations in the viewer's connection speed, the Player chooses the optimal bitrate for the user in real-time.
- **Analytics reporting** - during video play, events such as player appearances, starts, completes, and engagements are sent to internal and external reporting systems. Audience demographic and psychographic data is also tracked.

The Eko Video Player includes the following components:

1. Loader - identifies the device and Web property environments, and loads the code, configuration and assets to enable the playing experience.
2. Engine - manages optimized streaming of the video content from a set of CDNs, and the complex stitching of dynamic video streams.
3. Engagement handler - enables end viewer engagement and synchronizes between engagement user interface, end viewer activity and the video stream.
4. Player controls - control bar, interactive title overlays, etc.
5. Analytics - event generation and reporting layer.

Cross-Platform Capabilities

The Eko Video Player uses cutting-edge technology to allow truly cross-platform interactive video playing, using the same Javascript code on different devices. Eko videos work reliably and consistently across modern desktop, laptop, tablet, and mobile devices. Support for OTT TV platforms, game consoles, and VR is in development.

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Embedding an Eko Video

You can embed the video itself on any website using the Player's native <iframe> embed code. The embed code is a standard HTML snippet that requests the interactive video object from our server network and adds it to a page source. The video can also be served through an ad network.

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Distribution on Social Media Platforms

The Eko Video Player is whitelisted for playback on Facebook and Twitter. When end viewers share an Eko video to one of these services, they essentially embed the Eko Video Player onto their timeline. The Eko Video Player plays within the social media feed on desktop and in the in-app browser on mobile with the exception of Facebook promoted posts, which link out to an independent browser windows regardless of the device type. In addition, websites that embed an Eko video may add meta tags to their site to enable in-line playback on shared posts.

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Ad Network Integration and Delivery

The Eko Video Player can be displayed in an ad network's container as a Rich Media Ad Unit (an embedded HTML5 code snippet) or as in-stream video using the IAB industry standard VAST/VPAID tag.

Projects are automatically implemented with all of the necessary tags and compliance to support ad distribution. The ad server is provided with the tag url and then handles the trafficking and targeting of the media. Eko videos are seamlessly implemented as in-stream video ads and ad units on several leading ad networks, including: DoubleClick (by Google), TubeMogul, ZEDO, True[X], and BrightRoll.

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Ad-Serving with VAST/VPAID Tags

The Video Ad-Serving Template (VAST) provides a common ad response format for video players that enables video ads to be served across all compliant video players. It is a protocol that facilitates an ad server to take campaign video ad assets (video, companion banner, tracking pixels) and distribute it in a single xml file to publishers. For more information about the IAB VAST specifications, see IAB VAST Specs Site.

The Video Player Ad-Serving Interface Definition (VPAID) establishes a common interface between an in-stream video ad unit and a video player, enabling a rich interactive ad experience for viewers and allowing advertisers to collect ad playback and interaction details. By supporting the VPAID protocol, the Eko Video Player becomes accessible in another video platform outside of the Eko environment. For more information about the IAB VPAID specifications, see IAB VPAID Specs Site.

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Scalable Hosting & Delivery

For scalable, best-in-class cloud hosting of videos we use Amazon S3. Our supported CDN providers (Amazon Cloudfront, Akamai, and Fastly) ensure optimal response time and availability across the globe.

We also offer the option for you to use your own hosting server and/or CDN for delivery. In this case, you will need to ensure the appropriate CORS configuration is in place. Our documentation and support team is available to guide you through the simple configuration process.

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Viewability for Sparks

Eko Sparks solve the viewability challenge by design. Sparks are native to the interactive video: they run as part of, and in the prominent size and placement within the browser, as the interactive experience that the viewer is enjoying. The only way for a Spark to be served to the viewer, is viewer engagement leading to it.

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Viewability for Branded Content

For branded content ads, the validation of viewability is provided by the ad network partner. The ad networks we partner with use MRC-accredited viewability vendors (MOAT and DoubleVerify).

When Eko videos are served as industry standard ad units, they enable full viewability analysis as performed by these systems. Specifically, these systems typically integrate into the third party ad network by appending a tracking pixel to the ad tag in the form of a 1x1 GIF that is compatible with our ad network integration and is not visible to the end user.

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Data Collection

The Eko Video Player reports all tracked events to our internal tracking system which is built upon Amazon Redshift. We collect View events (playback, control, sharing), Engagement events, and Completion Quartile events. Audience demographic and insights data is reported through Google Analytics. Each event is reported with a standard set of attributes and a user / browser identifier stored in a cookie dropped by the Eko Video Player on the browser. Eko does not collect any personal identifying information on viewers.

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Validating Data with Third-Parties

The Eko Video Player can also report events to a second or third-party account on any of the following tracking systems:

- Mixpanel
- Google Analytics
- Floodlight (by DoubleClick/Google)

Support for these services is part of our standard offering, and we require the partner's account codes on the relevant target system in order to enable tracking.

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Analyzing Your Data

We provide you with a real-time, password protected dashboard for visualizing the engagement and audience metrics of your video. We'll customize your dashboard based on your KPIs and business goals for the campaign.

Partner Success

Beyond our creative services, our project management and client services teams are available to help with technical and product implementation, debugging, and troubleshooting during the project creation and deployment process. Once your creative campaign is live, you can track your KPIs in a real-time analytics dashboard provided by our team in addition to any third-party tracking systems that have been implemented. We can also analyze consumer behaviors and choices within the experience, and generate insights and case studies that will help you transform your business.