Predictive Content Delivery for Mobile Video

Software Development Kit for Media Apps & Akamai WatchNow Application

Akamai's Predictive Content Delivery technology is designed to provide consistent, high-quality mobile video experiences with instant startup and no buffering or stalling — regardless of geographic location, time of day, or environmental obstructions.

The trajectory of mobile video growth has passed the point of a nice-to-have service and is quickly becoming an integral part of how video is consumed on a daily basis. The mobile screen is critical for extending the consumption of video for multiscreen and OTT services and creating customer loyalty. Consumers expect to easily access and quickly play a video on their mobile device regardless of their geographic location or time of day. However, when it comes to mobile video, there is too often a discrepancy between consumer expectations and the reality of delivering heavy, data-laden videos to the device. Cellular networks present unique challenges, especially for mobile video, which due to the nature of the content is difficult to deliver at a high quality (high bitrate) without stalling or rebuffering.

To provide an exceptional video experience to the mobile consumer, playback should be instantaneous, videos should be easy to find and continuously available, and content should be of particular interest to the individual viewer. Also, the video quality must be such that buffering and stalling do not impede the viewer experience. The experience should be similar to an in-home TV experience with the ability to quickly zap or swipe to the next video.

Akamai's Predictive Content Delivery (PCD) technology was developed to help satisfy the growing demand of mobile video. It is designed to optimize the delivery of data-heavy video traffic terminating on mobile devices and provide mobile customers with a video service that exceeds their expectations in the form of high-quality, always-available video with instant startup.

The PCD is designed to meet the challenges of mobile video by…

- **Extending video consumption** - Providing mobile subscribers access to more video on-demand, on-the-go with fresh personalized content.

- **Improving audience engagement** – Removing seek and load times with instant startup and a better, more consistent experience by caching videos on the device.

- **Increasing quality** – Scale the delivery of high bitrate video and move from an SD to an HD experience.

- **Optimizing video delivery** – Move the delivery to known off-peak cellular windows or to Wi-Fi.
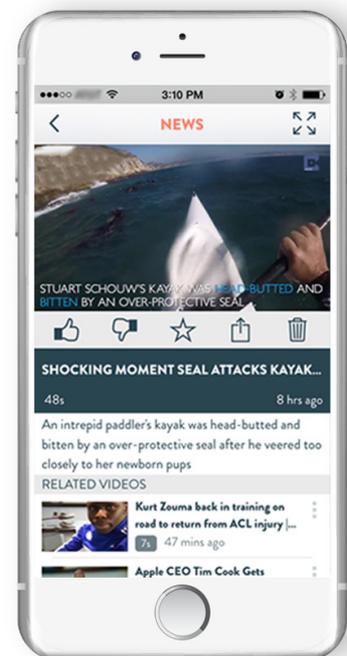
Predictive Content Delivery

Predictive Content Delivery for Mobile Video makes use of mobile device storage, a recommendation engine, and smart background download mechanisms to preposition video content to the mobile subscriber's device before they even start to look for it, using known off-peak cellular windows or a Wi-Fi connection. It is also designed to make use of user preferences and analytics to deliver videos personalized to the interests of the individual mobile customer.

The technology comes in two configurations: **a software development kit (SDK)** that can be easily integrated into an existing or new media application or the turnkey, **white-labeled Akamai WatchNow application** — both of which enjoy the technology modules of Predictive Content Delivery.

BENEFITS TO YOUR BUSINESS

- **Provide a superior on-the-go video experience** to mobile customers with videos that start immediately — with no buffering or stalling regardless of location or network conditions.

- **Increased discovery and consumption of mobile videos** with personalized downloads and automatic content refresh.

- **Build customer loyalty** with a differentiated service quality.

- **Provide continuous access to your content** by caching content on the device.

Prepositioned videos stored on the phone, able to launch immediately on hitting on the video image.

Predictive Content Delivery for Mobile Video

Predictive Content Delivery SDK for Media Apps - The Predictive Content Delivery SDK is a lightweight and modular SDK that can easily integrate into media applications to pre-position video to the mobile device.

The **Akamai WatchNow App** is a turnkey, white-labeled mobile video application that mobile network operators (MNOs), media companies, and online video providers (OVPs) can use to quickly take a mobile video service to market.

Features

- **Predictive Analytics** – Akamai's recommendation engine curates personalized content either through a set of customer preference settings or as users interact with the application. It learns what is most likely to be viewed based on what is watched, liked, disliked, and shared socially over time through the application and increases the personalization of videos delivered to each individual mobile subscriber. This is designed to increase the discovery of relevant content and consumption of videos on mobile devices.

- **Pre-positioning Videos (Passive Delivery or Active Push)** – Videos of interest to the individual mobile subscriber will be automatically pre-positioned and stored on the mobile device. Content is populated based on customer preferences and the relevancy of the content. The SDK employs download mechanisms (which are configurable) to efficiently download videos in the background on mobile devices according to the application's requirements. The SDK also makes use of known off-peak cellular windows and convenient Wi-Fi (when connected to a strong Wi-Fi signal) to optimize delivery. Parameters around the timing of the downloads and the connection type can be set and managed by the publisher and/or mobile customer. This allows for either a scaled push of content to millions of users or a passive delivery of content to the device – ensuring fresh, relevant videos always available to the mobile customer.

- **Device Storage & Management –** The videos are stored on the mobile device so when the mobile customer goes to launch the video, it launches instantly with no buffering or stalling. Because they are stored on the mobile device, the playback is of the highest quality and unaffected by network conditions. The videos actively refresh on a regular basis and outdated videos are removed, so mobile subscribers don't have to manually clear their device of stored video content.

- **Reporting** – The client reports all usage data points (watched, not watched, length of viewing, time of viewing, etc.) which feeds the recommendation engine to curate personalized content for the individual user. Back-end reports provide details of content consumption through a reporting dashboard portal.

- **Digital Rights Management** – The PCD SDK integrates easily with digital rights management solutions to secure online and offline content rights. Akamai has also partnered with Verimatrix to provide a robust DRM solution for content delivered to the mobile device. The Verimatrix VCAS for Internet TV solution ensures secure HLS and DASH stream delivery for OTT services (including live and video-on-demand content) to all device categories.

The Akamai Ecosystem

Akamai makes the Internet fast, reliable and secure. Our comprehensive solutions are built on the globally distributed Akamai Intelligent Platform, managed through the unified, customizable Luna Control Center for visibility and control, and supported by Professional Services experts who get you up and running easily and inspire innovation as your strategies evolve.

Full-screen image with icons to like, dislike, save, share, or delete the video.

Akamai FASTER FORWARD