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THE BRAVE NEW WORLD OF OVER-THE-TOP STREAMING

For the past few years, there’s been a lot of talk about delivering video to mobile devices and about the growth of video consumption on smaller screens. While it may sound easy to take a single video clip and simply repurpose it to play back on multiple devices, the fact is that delivering video to so many different platforms and device types is extremely challenging.

As more new devices come to market each year, running a multitude of different OS versions, content owners are having a hard time making mobile video playback work effectively and generating a profitable ROI.

This problem only gets bigger with premium content, which drives the majority of growth in the online video industry. Premium content consumption is growing at an even greater rate than video consumption in general. Content publishers want to take advantage of the growth in mobile viewership, but also need to protect their content across multiple devices.

Figure 1: The Rise of Mobile + Tablet Video

<table>
<thead>
<tr>
<th>Month</th>
<th>Share of Mobile + Tablet Video Plays: August 2011 - July 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2011</td>
<td>0%</td>
</tr>
<tr>
<td>Nov 2011</td>
<td>3.75%</td>
</tr>
<tr>
<td>Feb 2012</td>
<td>7.50%</td>
</tr>
<tr>
<td>May 1, 2012</td>
<td>11.25%</td>
</tr>
<tr>
<td>Aug 1, 2012</td>
<td>15.00%</td>
</tr>
</tbody>
</table>

Source: Ooyala

It’s not enough simply to get video to play back on a device; premium content owners need to deliver the same high-quality uniform experience and have the same monetization options across all screens. Without that, they risk higher drop-off rates, lower viewer engagement, and missed revenues from mobile video.

This is especially true for live events. Viewers have an almost unlimited appetite for live content, and more often than not, a mobile device is the device at hand while the event is happening. Overall, recent data from Ooyala shows that desktop viewers watch live video 13 times longer than VOD content, tablet video viewers watch live video four times longer, and mobile audiences tune in to live video three times longer.

But without a way to protect, monetize and measure the success of their mobile video strategy, content owners won’t know if their investments are paying off.
Previously, most of the video being consumed on smaller screens was short-form, UGC-style content similar to that seen on Vimeo and YouTube. The lack of content protection solutions at the time made it hard for content owners to generate suitable content syndication strategies and monetize their premium content. But today there are more ways to monetize and repurpose content than ever before, especially as premium publishers find new ways to extend the value of their existing live and on-demand content to multiple screens.

Premium content owners are now starting to experiment with business models for all-device access that adhere to studio and broadcaster regulations. That means they need a solution to get video to all mobile devices—fast.

Based on Ooyala data from Q1 of 2013, mobile and tablet video viewers spent more than half of their total online viewing time watching long-form videos. And 25% of total tablet viewing time was spent watching video content of more than 60 minutes in length.

Figure 2: Total Online Viewing Time

Source: Ooyala
Mobile Video Distribution on Android: Challenges, Opportunities and Solutions

So premium content owners who haven’t yet deployed a real strategy are already falling behind. Mobile should be a critical and growing part of their business; taken together, mobile and tablet video now account for more than 10% of all online video plays. That mobile share of all hours watched online doubled from 4% to 8% in 2012, and has continued to zoom steadily upward. Even so, challenges remain in delivering premium live and on-demand content, especially for certain types of devices, like those that run Android.

Any serious mobile video strategy has to take into account the need for content protection, the implementation of which varies among devices. Add in the tasks of tracking content across multiple platforms and devices, inserting ads, and supporting HTML5 and native apps for playback, and it’s clear that content owners with premium business models should have a real sense of urgency.

It’s no longer enough to know how many plays a piece of content has. Savvy media publishers need to use cutting-edge video analytics to understand and monetize plays on different device types based on time of day, user location and other personalized options.

Addressing the fragmentation problem in the market is at the core of all these issues. As most content owners already know, the likes of Apple, Microsoft and Google don’t make things easy. If there were standards in the Internet video and device world that manufacturers could all agree on (topics like formats, bitrates, protocols, platforms and screen sizes), things would be easy.

But that’s not the reality. The market gets more fragmented every year. Content owners face the constant challenge of getting their video to the widest possible number of devices and platforms, all with an engaging user experience and full support for live streams and premium content.

Proliferating versions of the Android OS are rapidly creating a special challenge in delivering live video, especially for premium content owners. Publishers can build an app for their event series, but many do one-off events and can’t afford to build multiple apps to fit all possible devices for a single live broadcast. Content owners want to stream live video to the mobile Web and reach their audience using browsers on Android and iOS devices. When Android phones first became popular, live video was supported in the mobile browser thanks to Flash, but that’s no longer the case.

This is one of the main reasons why, when we look at the latest data from Ooyala, we see that Android’s share of mobile video playback was only 33% last year. Android devices outsell Apple two to one, but live video views are greater on iOS over Android by the same two-to-one ratio. These upside-down numbers clearly illustrate how hard it is for Android owners to see all the video they want.

Some content owners are under the impression that video playback still works on Android devices thanks to Flash; but for most, that’s no longer the case. For a while, the most effective way to get live video to Android browsers was to make a stripped-down Flash player that didn’t demand much from the phones.
Video was decoded in the software, but it would drain batteries quickly. It was imperfect, but it functioned well enough to play video. But Flash is no longer installed on new Android phones, and mobile handset and software technology changes so fast that what may work one day could literally stop working overnight. Even if Flash is side-loaded through an app, those side-loaded Flash apps may very well break down as the device OS is updated.

That leaves content owners in an awkward state if they want to deliver premium or live video to Android browsers. If Flash is present, they can deliver a basic Flash video player. If it’s not, they can try to deliver HTTP Live Streaming (HLS), but the HLS manifests must either be hand-coded or created using Android-specific tools. Live video support for browser-based streaming within Android tablets and phones is a significant challenge, with little help available from Google.

And with Google still talking about removing H.264 video support, many content owners desperately need to have a game plan and a real solution in the market, rather than continuing to spend time and effort with half-baked workarounds. Premium content publishers also need something that provides vital analytics, so they can measure their success.

TECHNOLOGY TO THE RESCUE

Seeing no easy solution on the market that addressed the video playback problem on Android devices, Ooyala set out to solve it with a flexible solution that would let content owners focus on acquiring, monetizing and measuring their video, rather than on developing technology workarounds.

The Ooyala solution, called Hook, allows premium content owners to deliver video to 98.6% of devices on the market today.¹ The playback works with minimum time and effort. Hook fully supports ad insertion and uses studio-approved DRM to protect premium content.

Hook is designed specifically for the needs of Android mobile platforms. It lets publishers deliver live, linear, and premium VOD content not possible on current mobile Web platforms without the significant cost and lengthy time-to-market required to build custom video-centric apps.

¹ Source: http://developer.android.com/about/dashboards/index.html. Data collected in September 2013
“The French Open is one of our biggest events of the year where we deliver live footage of the matches, as well as interviews and behind-the-scenes coverage to tennis fans around the world. Traditionally, powering live streams to Android devices has been nearly impossible, but with Hook, Ooyala’s video playback application, we were able to deliver a great, live viewing experience to more than 10,000 Android users without having to build an expensive application. We also saw Android users were two times more engaged than people watching on iOS devices.”

Josh Ross
Director, Advanced Media, Tennis Channel

With Hook, users only have to download the app once. Instead of the video playing in the native player, it will play seamlessly in Hook. If the Hook app isn’t installed, the website opens a dialog box that prompts the user to install the app. After the initial download, playback works across any Hook-enabled website.

This allows content owners to build their mobile HTML5 website as they normally would, with video playback happening seamlessly in the Hook app. Since its launch, the Hook application has already been downloaded more than 100,000 times for Android devices. Content owners, as diverse as Comedy Central and Pac-12, have enabled their websites to take advantage of Ooyala’s Hook solution for both live and video-on-demand content.

Content owners love delivering video via the Web because of the low cost, easy updates and the advantages that come with viewing on a browser. But mobile has more constraints, and trying to get that same experience to portable devices is expensive.

Content owners can invest hundreds of thousands of dollars to license and build great applications across multiple platforms, but most are not large enough to be able to make those kinds of investments.

And even those who do have the resources find that the overhead for constantly rebuilding, repurposing and redeploying is an economic liability. Most premium content owners want both the flexibility of the Web and the qualities of video playback in a native application. That is the value Hook provides.
Hook is not only a premium content playback application, but it also supports ad insertion and removes the high costs associated with developing custom applications. With Hook, content owners can increase their reach to millions of Android users and maximize viewer engagement and monetization opportunities with Ooyala’s analytics and discovery products.

The Tennis Channel used Hook to ensure that its viewers had seamless live and VOD access to coverage of the 2013 French Open, one of its biggest events of the year. Traditionally, powering live streams to Android devices had been nearly impossible. But with Hook, The Tennis Channel saw more than 30,000 downloads in five days and viewer engagement that was two times longer on Android than on iOS devices. The channel delivered live matches, interviews and behind-the-scenes coverage to Android users around the world without having to build an expensive application.

Hook delivers adaptive bitrate and live video streaming using HLS, the same HTTP live streaming protocol technology used to deliver video to Apple devices like the iPad and iPhone. Android’s lack of native HLS support is one of the reasons why streaming to mobile devices remains a challenge—a problem that Hook solves.

Hook also supports standards-based ad insertion, closed captioning and studio-approved content protection to secure access to licensed movies and TV shows. Hook allows content owners to save time and development costs; for those with multiple sites and portals, building and maintaining an application for each video property just doesn’t make sense. Hook provides all the benefits of developing for the mobile Web, without the limitations of the Android platform.

THE BOTTOM LINE

To sum up: today’s viewers clearly want to move their video viewing onto their mobile tablets and smartphones, and they are doing so at an impressive rate. But the proliferation of mobile devices makes it harder, rather than easier, for those viewers to get the best possible experience. It makes it equally hard for content owners and publishers to deliver a premium experience with full security, while earning the revenues they deserve.

Hook helps both groups. For viewers who want video to “please just work” on their mobile devices, Hook offers an easy app that saves the day. And for premium content owners who want to make the most of their video, Hook delivers their video across the full range of mobile devices and platforms—at top quality, with full security and greater ROI.
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