2016 in the Cloud: Akamai’s Year in Review

Akamai’s dominance of the media and entertainment sector is no secret and in 2016 we continued to see growth in this area. Our media processing capabilities are well suited for the entertainment industry, which relies on high-quality video and audio delivery. This year we saw a growth in the use of HEVC, which is especially popular within the HLS adaptive bitrate standard due to its wide compatibility across desktop and mobile devices.

Despite the bigger is better mantra in the realm of screen sizes, we are just now seeing 1080p make up about half the resolutions. 4k saw nearly 50% growth, but it remains far from the pole position. 720p remains a solid format, despite the increased use of higher resolutions.

While video may have killed the radio star, it has not killed the demand for static image processing. Our infrastructure continues to easily meet customer demands, even with the increased use of 4k and 8k resolution images. Our proprietary Encoding Intelligence™ is at the heart of our capacity to deliver optimized video. Tech innovators like Dolby & Apple continue to lead the charge by creating high performing codecs.

New this year, we’ve introduced the audio formats category. Audio compression plays a critical role in the delivery of optimized video. Tech innovators like Dolby & Apple continue to lead the charge by creating high performing codecs.

While the FCC did make some updates to their requirements in 2015, none of these impacted our processes. However, we did see 15% more outputs containing caption tracks in 2015. We expect to see the Flash video codec decreased nearly 15% in 2015. We expect to see the Flash video codec decreased nearly 15% in 2015.

Digital Rights Management

While we support virtually unlimited codec and container combinations processed by over 20 commercial and open source encoding engines, very few of those formats make up a significant percentage of usage. We’ve seen a decline in the use of Flash Video and an increase in the use of HLS. However, UDP, particularly Aspera, makes up a significant portion of the transit and continues to grow.

Digital Rights Management standards are increasingly scattered, leading video publishers are targeting HLS on all major devices (iOS, Android, Windows). The inherent speed and security design make UDP a leading format, because it's easier to ensure optimized playback over the stream.

HLS Almost Mainstream

Both HLS and MPEG-DASH are supported in nearly every major browser providing a good baseline for both delivery methods. Both are methods to deliver HTML5 video to Chrome, Firefox, and Opera. However, MPEG-DASH is a part of the increasingly chaotic device and content landscape.

The combined to make HLS the de facto standard for video delivery in an increasingly chaotic device and content landscape. Big moves by major broadcasters offering OTT subscriptions has ushered in the a la carte TV subscription market.

Betting on the cloud in 2014 seems to have paid off for the world’s largest media and entertainment companies as we saw over 50% growth of broadcast and on-line content being delivered over the Cloud.

Adaptive Bitrate Standards

While video delivery over the cloud is growing, there is no single standard that stands out. Our Standard In-Stream and Live Video Delivery library reports the status of the leading formats, with a focus on the three leading standards: HLS, FairPlay and WideVine.

Our research and analysis help our customers understand the current state of the market and plan for the future. Our Cloud Files™ and Global Media™ features allow our customers to seamlessly move content between data centers and cloud processing centers.

Global Media™

Cloud files™

Video Quality Standards

HLS

FairPlay

WideVine

Restricted format alterations, which limit the ability to use third-party or open-source players, have become increasingly popular among content providers. FairPlay & WideVine continue to lead the way in this space. As we move deeper into the world of OTT, the need for secure delivery of content to a variety of devices is of the utmost importance.

Audio Formats

While we support virtually unlimited audio combinations processed by over 20 open source and commercial encoding engines, very few of those formats make up a significant percentage of usage. MP3, AAC, HE-AAC, AC3, EAC3 and the HEVC codec are the most popular.