

Akamai HD for the Adobe Flash Platform

HTTP Dynamic Streaming for Live and On Demand Video

The scale challenge

Audiences continue to move online in record numbers for both live and VOD content.

2008 proved to be the watershed moment in the online video industry. The US presidential inauguration attracted a record broadcast scale audience for a single streaming event. Since then the industry has experienced numerous events online, such as the 2010 WorldCup and the 2011 Royal Wedding, that have attracted millions of viewers. We have entered the era of broadcast scale audiences online. The challenge for content publishers is, how do you ensure your online video services scale to support broadcast scale audiences online?

The quality challenge

Online audiences are demanding higher and higher quality experiences for online video.

They expect fast start up, smooth playback, high resolution, including full screen HD experiences, and interactivity such as DVR for live video. Consumer demands for higher and higher quality is one of the reasons that long form HD video will grow to represent 74% of all video traffic on the internet in 2014. Quality differentiation has become a new online video imperative.

The workflow challenge

New standards are emerging. HTTP Dynamic Streaming (HDS) is one of the industry's latest adaptive bitrate streaming standards for live and on-demand video. HDS has been designed to deliver a TV-like viewing experience online by reducing buffering and enabling fast video start up times. To take advantage of HDS, content publishers must first publish their content to the HDS standard. This may require many content publishers to make costly changes to their existing Flash workflows to get to the HDS standard.

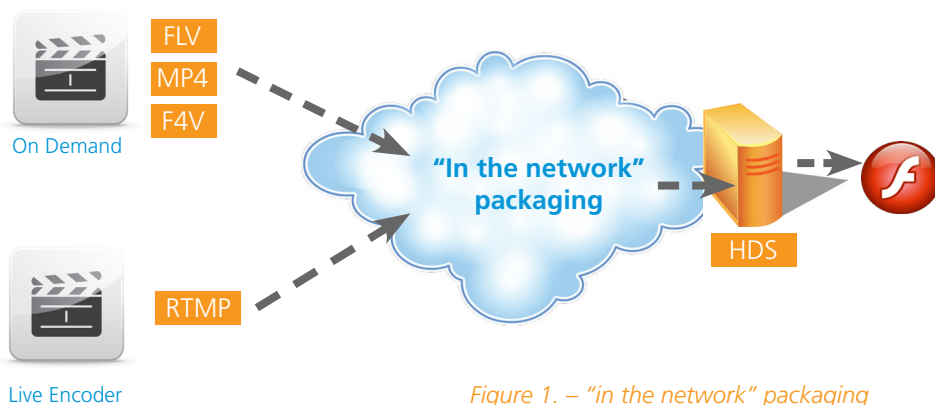
Akamai HD for the Adobe Flash Platform

Akamai HD for the Adobe Flash Platform offers a suite of advanced features that are designed:

1. Raise the bar on scale, performance, and reliability for live and on demand streaming
2. Enable a TV like experience for online video
3. Simplify live and on demand Flash streaming workflows
4. Protect content with powerful easy to use security

"In the network" packaging

"In the network" packaging simplifies streaming workflows by intelligently repackaging source Flash video containers, such as FLV, F4V, MP4 or a rtmp live stream and converting to HDS output. With Akamai HD for the Adobe Flash Platform, no workflow changes are required to take advantage of HDS. You can leverage your existing RTMP live streaming workflow and your on-demand streaming publishing workflow. Akamai HD for the Adobe Flash Platform simplifies HDS live and on-demand streaming workflows with a unique feature called "In the network" packaging.



VISIT THE HD FOR THE ADOBE FLASH PLATFORM SHOWCASE

at <http://wwwns.akamai.com/hdnetwork/demo/flash/zeri/index.html>



DVR for Live Streaming

DVR brings a whole new level of interactivity to the consumer experience by giving the consumer the ability to pause, seek back, seek forward, and restart a live video stream at their discretion. Akamai DVR also provides the ability to instantly create clips, offer catch-up TV services, and provides an authoritative archive of assets.

Adaptive

Advanced heuristics developed by Akamai intelligently adjust the bit rate of the video stream to ensure the optimum playback quality based on changing bandwidth conditions.

Adaptive Streaming



Conventional Streaming

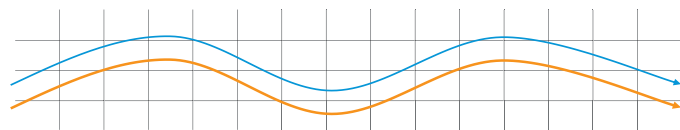


Figure 2. – Adaptive streaming graphic

— Bitrate Streamed
— Users Bandwidth

Massively scalable HTTP network

The Akamai HD Network to date has handled many of the world's largest online events, including the Prince William and Kate Middleton Royal Wedding, 2010 Olympics and 2010 World Cup events. It is designed to support broadcast scale audiences and handle any traffic peak with ease. By delivering content from servers that are closest to end users, the HD Network avoids traditional Internet congestion and latency issues. This translates into fast start up times and the ability to deliver higher bitrate content.

Content Protection

Akamai SecureHD is an available add-on module. SecureHD is a set of security mechanisms that can be used, independently or together, to provide protection for your Flash video while allowing legitimate users to enjoy a smooth and stunning viewing experience. These mechanisms include:

- **HD Media Encryption** – Delivers the encrypted content to player runtime
- **HD Token Authorization** – Authorizes the end user and prevents Link Sharing and Player Hijacking
- **HD Player Verification** – Validates that the player playing the content is one of the approved players; helps detect player tampering and prevents deep linking
- **Content Targeting** – Enforces access in specific geographic regions (GEOs) and prevents GEO access violations

The Akamai Difference

Akamai® makes the Internet work for some of the best-known companies in the world with its solutions for cloud computing, eCommerce, Web sites, HD video and software-as-a-service. Delivering unmatched performance, scale and security, Akamai's solutions are built on the Akamai Intelligent Internet Platform™, unique in the industry due to its rich functionality and intelligence and because it is globally distributed across 650 cities, in 72 countries and integrated into about 1,000 of the Internet's most important networks. To learn more visit www.akamai.com or follow us on Twitter @akamai.

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