

HTTP Dynamic Streaming

Achieve maximum reach with flexible delivery protocols for both live and on-demand media. Promote seamless, more secure playback with adaptive bitrate delivery and optional content protection.



The HTTP Dynamic Streaming workflow utilizes the following tools:

- **File packager**—Prepares on-demand assets for HTTP Dynamic Streaming delivery
- **Live packager**—Packages live streams in real time for HTTP delivery
- **Adobe Flash Access**—Provides optional content protection for both live and on-demand streams
- **Open Source Media Framework**—Simplifies the development of media players and supports HTTP Dynamic Streaming
- **Adobe Flash Player 10.1**—The first runtime release of the Open Screen Project that enables uncompromised Web browsing of expressive applications, content and video across devices including HTTP Dynamic Streaming

HTTP Dynamic Streaming enables high-quality (H.264 or VP6), network-efficient HTTP streaming for media delivery that is tightly integrated with Adobe® Flash® Access™ software for robust content protection in the Adobe Flash Player 10.1 and Adobe AIR® 2 runtimes. This open-format solution allows online publishers to leverage existing network and cache infrastructures to efficiently deliver media content to the Adobe Flash Platform. Adobe Flash Media Server software continues to be a great option for streaming, multiway communication, as well as advanced interactive experiences such as quick start times and quick seeking. Like Flash Media Server, HTTP Dynamic Streaming supports quality-of-service (QoS) monitoring, adaptive bitrate, and DVR functionality. The HTTP Dynamic Streaming workflow includes content preparation tools, fragmented MP4 files that are HTTP cache-friendly, a playback framework (OSMF), and options for protected streaming powered by Flash Access, continuing to make the Adobe Flash Platform the choice for reliable delivery of more secure, high-quality playback experiences.

Utilize standard caching and hosting infrastructures—Achieve robust, scalable delivery with existing caching infrastructures and standard server hardware to deliver premium on-demand and live content.

Upgrade from progressive delivery—Deliver enhanced playback features including live support, trick modes, DVR functionality, and full access seeking over HTTP connections with HTTP Dynamic Streaming. Take advantage of adaptive streaming that leverages QoS APIs in Flash Player to deliver the optimum bitrate to clients based on their connection speed and processing power.

Protect premium content with Adobe Flash Access 2—Enable content protection and access rules for your valuable live or on-demand content with more secure file encryption, while still allowing seamless access for the viewer. Flash Access allows publishers to maintain control of their content throughout the production workflow.

Support multiple video codecs—Encode your content using any codec compatible with Flash (VP6/MP3, H.264/AAC), and with a simple processing step, create standards-based fragmented files for HTTP Dynamic Streaming delivery.

Maintain unparalleled reach—Reach the widest possible audience by delivering content to Flash Player or Adobe AIR applications, allowing users to stream premium content to Mac OS, Windows®, or Linux® desktops on the most ubiquitous media delivery platform. Take advantage of flexible delivery protocols to optimize the delivery method for each client.

Leverage industry-standard MP4 file specifications—Achieve a low-latency streaming experience with an optimized, open source MP4 fragment format, the industry-standard format for adaptive bitrate delivery.

Build custom streaming applications quickly and easily—Utilize the Open Source Media Framework (OSMF) to rapidly develop media players that take advantage of HTTP Dynamic Streaming along with other delivery protocols. Quickly add functionality and integrate with third-party APIs for advertising, tracking, and more with the OSMF plug-in architecture.

System requirements

HTTP Dynamic Streaming Development

- Strongly recommended: Open Source Media Framework 1.0 or later

Content packaging

- Microsoft® Windows Server® 2008 (32 bit)
- Red Hat® Linux 5.1 (32 bit)

(Note: For 64-bit systems, these processes can run in 32-bit mode.)

Content protection

- Adobe Flash Access 2

Content delivery

- Apache Web Server 2.2 (32 bit) for Windows
- Apache Web Server 2.2 (32 bit) for Linux

(Note: For 64-bit systems, Apache runs in 32-bit mode.)

Open specifications

- F4F file format—Based on F4V, using standards-based MP4 fragments
- FMF manifest file format—Based on XML

Related products

- Adobe Flash Player
- Adobe AIR
- Adobe Flash Access
- Adobe Flash Media Server
- Open Source Media Framework

Top features of HTTP Dynamic Streaming

Adaptive bitrate—Detect the client's bandwidth and computer resources and serve content fragments encoded at the most appropriate bitrate for the best viewing experience.

Live or on-demand streaming support—Deliver both live and on-demand media over standard HTTP connections. Live delivery utilizes similar Flash Media Server streaming workflows, and video on demand requires a simple processing step to prepare files for HTTP Dynamic Streaming delivery.

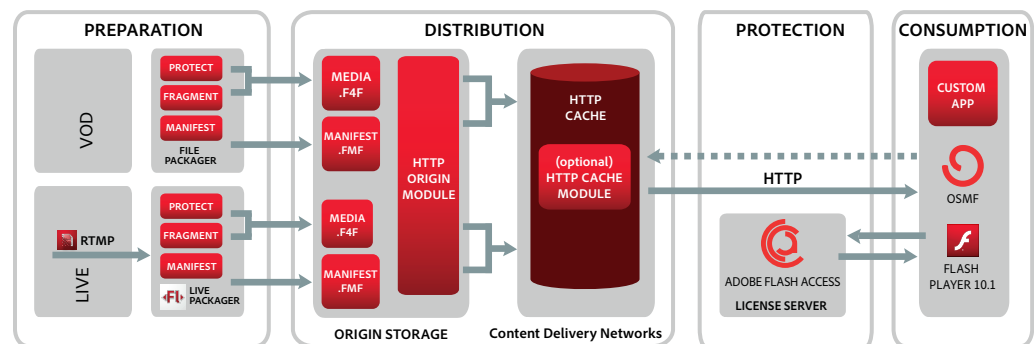
HD quality—Deliver high-definition video up to 1080p, with bitrates that meet your business demands using either H.264 or VP6 codecs.

Support for standard HTTP caching systems—Leverage existing standard server hardware and caching infrastructures to maximize capacity and reach.

DVR functionality—Add interactivity to live streams by enabling DVR functionality, allowing viewers to pause, rewind, and skip forward to real time.

Client tracking and reporting (with OSMF Omniture plug-in)—Confidently collect usage data and track playback interaction—enabling content monetization and optimization—with the Omniture plug-in available in the Open Source Media Framework.

Multiplatform browser, desktop, and device support—Reach the widest possible audience by delivering content to Flash Player 10.1 or Adobe AIR 2 applications, enabling high-quality media consumption on Mac OS, Windows, or Linux desktops.



HTTP Dynamic Streaming workflow

This diagram illustrates the encoding and delivery workflow for both on-demand and live streaming. On-demand streaming requires a simple packaging step; live delivery utilizes the live packager for HTTP Dynamic Streaming.

For more information

Product details:

www.adobe.com/go/httpdynamicstreaming

httpdynamicstreaming



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