

# Adaptive Media Delivery

High-quality and secure streaming media delivery from Akamai's globally distributed content delivery network (CDN)



Global online audiences demand instant, uninterrupted access to video on any device, anywhere. With numerous options for video consumption at their disposal, they have no qualms turning to other providers to get the high-quality experience they demand. Meanwhile, the challenges of online content delivery are growing relentlessly, making it increasingly difficult to deliver consistent high-quality experiences to growing audience sizes amidst frequent spikes in demand.

Working with a partner who can take concerns about reliability, scalability, and security out of the equation, especially when there are sudden spikes in global viewership, is a necessity. Any misstep can have a long-lasting effect on audience perceptions and brand reputation.

## Akamai's Adaptive Media Delivery

Akamai's Adaptive Media Delivery is optimized for Adaptive Bitrate (ABR) streaming to provide a high-quality viewing experience across the broad variety of network types — fixed or mobile — at varying connection speeds. Built on the Akamai Intelligent Edge Platform™, Adaptive Media Delivery provides superior scalability, reliability, availability, and reach.

The solution securely delivers prepared, pre-segmented HTTP-based Live and On-Demand streaming media, including support for the following video and music formats:

- HTTP Live Streaming (HLS)
- HTTP Dynamic Streaming (HDS)
- Microsoft Smooth Streaming (MSS)
- Dynamic Adaptive Streaming over HTTP (MPEG-DASH)
- Common Media Application Format (CMAF)

While Adaptive Media Delivery is both workflow and origin storage agnostic, Akamai's complementary Media Services Live and NetStorage can be combined with Adaptive Media Delivery for an efficient, high-quality streaming media solution.






## Key Product Differentiators

**Reliability, Capacity, and Scale:** Deliver high-quality streams globally with a trusted partner that has set benchmarks for performance and reliability at scale. When a streaming event or Over-the-Top (OTT) service must succeed, the world's most successful brands turn to Akamai's Adaptive Media Delivery.

**Quality Through Technology, Innovation, and Experience:** Since 1998, Akamai's CDN market success has supported continuous investment in network capacity and technology innovations, to stay ahead of online audience demand.

**Proximity — Closeness Counts:** Even the highest-quality networks are subject to the Internet's realities of latency, congestion, and packet loss, which can significantly limit online video quality. Akamai has the most pervasive content delivery network (CDN), which minimizes the impact of network congestion for consistent viewing experiences. With more than 233,000 servers in more than 130 countries and within more than 1,600 networks around the world, Akamai remains closer to the audience, for the lowest latency and highest quality.

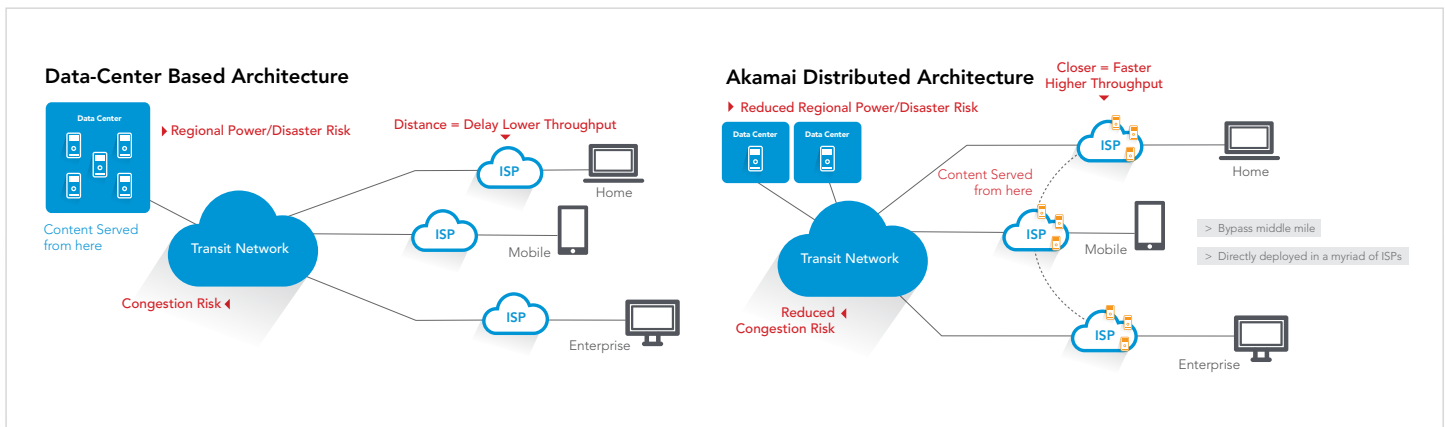
## BENEFITS TO YOUR BUSINESS:

-  **Maintain superior video quality and reliability** via Akamai's unique, globally distributed network architecture, which is backed by a 100% Uptime SLA
-  **Scale rapidly for large audiences** — planned or unexpected — by leveraging the distributed network's ability to dynamically and intelligently distribute load
-  **Optimize online video playback quality and performance** through Akamai application-aware software intelligence, uniquely tuned to optimize Adaptive Bitrate streaming
-  **Reach audiences on any device** with support for a wide range of standard video streaming protocols
-  **Get actionable insights** into streaming performance and quality of experience

“ Our experience with Akamai is that they are a smart, passionate team that's about delivering results — the same parallel goals that we have at NBCSports.com and NBCSports Digital.

— Rick Cordella,  
SVP Digital Media, NBC Sports Group

## Adaptive Media Delivery



Akamai's distributed architecture and ISP partnerships place the servers — and your content — closer to the viewer, for better reliability, availability, and performance. This approach offers the high quality of experience that online audiences increasingly expect.

## Standard & Optional Features

### RELIABILITY & SCALE

#### Akamai Intelligent Edge Platform™

Delivers on average 30 Tbps of Internet traffic daily, with a record of more than 60 Tbps

#### 100% Uptime SLA

Will serve content 100% of the time

#### Site Failover

Provides continued delivery in the event of an origin failover

### PERFORMANCE

#### Advanced Cache Control

Intelligently caches content close to end users while offloading traffic on the origin infrastructure

#### Tiered Distribution

Additional caching layer further optimizes origin offload and improves performance for end users

#### Adaptive Bitrate Streaming

Adjusts content dynamically for changing network conditions to ensure a high-quality experience

#### QUIC

A new UDP-based transport protocol which can improve video performance and provide a consistent quality of experience

#### HTTP/2

New protocol provides many improvements over previous versions in terms of efficiency, performance, and security

#### IPv6

Support for the latest communication protocol, including dual stack IPv4/IPv6

#### Purge & Fast Metadata Activation

Activate property configuration changes and update content rapidly

### SECURITY

#### Standard TLS

HTTPS delivery over custom certs using SNI

#### TLS: Shared Cert

HTTPS delivery using a SAN certificate from Akamai and a shared domain

#### Access Control

Manages security controls that govern end-user access to content

#### Token Authentication

Secures premium content from unauthorized access by preventing link sharing

#### Cloud Authentication

Delivers content from various cloud origins using simple authentication configurations

## Adaptive Media Delivery

### CUSTOMER UI & SELF SERVICEABILITY

#### Property Manager

A guided, self-service configuration tool within the Luna Control Center that enables customers to control and manage their products and services

#### Log Delivery

Access to logs generated from traffic on the Akamai Intelligent Edge Platform

#### Media Reports

Insights into delivery performance and usage

#### Luna Control Center

Provides customers a portal to manage all Akamai products and services

#### Luna Event Center

Provides insight into live events by streamlining planning, management, and reporting

### APIs & OTHER FEATURES

#### Open APIs

Operate and integrate with the Akamai Intelligent Edge Platform™ via <https://developer.akamai.com>

#### Beta Channel

An opt-in program allowing customers to quickly and easily adopt and evaluate new Akamai beta capabilities

#### Third-Party Origin Support

Leverage any origin storage of your choice

### OPTIONS

#### Security

##### Enhanced TLS

Offers added security measures and provides HTTPS delivery using a custom certificate

##### Edge IP Binding

Enables whitelisting of a limited number of IP addresses for:

- Monitoring traffic usage associated with zero rated billing agreements
- Granting access behind a network firewall

##### Content Targeting

Restricts access to content based on geographic location

##### Media Encryption

Protects content against unauthorized viewing using scalable session-level encryption

##### Protocol Downgrade

Deliver content using the secure HTTPS protocol even when it is not supported by an origin infrastructure

#### APIs & Other Features

##### Manifest Personalization

Personalize video quality for each viewer based on device type, network conditions, or geography to ensure optimal playback

##### Dynamic Ad Insertion

Customers are able to serve highly relevant, targeted ads to individual viewers

##### China CDN

Delivery of content into China while ensuring full compliance with all Chinese government licensing requirements

##### Cloud Interconnects

Provides optimal connections with public cloud providers to ensure high-performance data transfer, and in some instances reduces cloud egress costs

## Akamai Ecosystem

Akamai makes the Internet fast, reliable, and secure. Our comprehensive solutions are built on the globally distributed Akamai Intelligent Edge 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.



Akamai secures and delivers digital experiences for the world's largest companies. Akamai's intelligent edge platform surrounds everything, from the enterprise to the cloud, so customers and their businesses can be fast, smart, and secure. Top brands globally rely on Akamai to help them realize competitive advantage through agile solutions that extend the power of their multi-cloud architectures. Akamai keeps decisions, apps and experiences closer to users than anyone — and attacks and threats far away. Akamai's portfolio of edge security, web and mobile performance, enterprise access and video delivery solutions is supported by unmatched customer service, analytics and 24/7/365 monitoring. To learn why the world's top brands trust Akamai, visit [www.akamai.com](http://www.akamai.com), [blogs.akamai.com](http://blogs.akamai.com), or [@Akamai](https://twitter.com/Akamai) on Twitter. You can find our global contact information at [www.akamai.com/locations](http://www.akamai.com/locations). Published 09/18.