AKAMAI PRODUCT BRIEF

Media Services Live 5, Powered by Harmonic

Live streaming differs significantly from traditional broadcasting. It continues to present unique challenges and requires a solution specifically designed to manage a continuous flow of content over the internet. Any solution must enable each individual viewer to experience broadcast-quality streaming, even as the audience scales. To provide a high-quality viewing experience for 24/7 linear services, a purpose-built approach is essential, taking into account reliability, scalability, and cost.

Challenges of streaming 24/7 linear services

Akamai delivers some of the world's largest live-streaming events and works with several of the world's most popular content providers, giving us a unique vantage point for architecting our solution. A key lesson we've learned while working with our media customers on transitioning to or launching linear over-the-top (OTT) services is that viewers demand an online experience that matches or exceeds that of broadcast.

The challenges of providing a streaming service that brings the TV experience to online audiences for live events and/or 24/7 linear programming include:

Ingesting content on a 24/7 ongoing basis, rather than on an event basis, to provide stable and consistent connectivity.

Providing a true broadcast experience to online users — that is, the same 4- to 6-second TV-grade experience — as we expand to 4K video and beyond.

Attaining broadcast-level reliability to support streams for 24/7 availability, even when system components fail.

Realizing consistent distribution for online content across a variety of delivery channels to reach a broadly distributed audience.

Efficiently monetizing online content in an increasingly complex video ecosystem driven by rising viewer demands for a TV experience online, fragmentation of devices, and advancements in ad-blocking technologies.

Monitoring stream performance in real time to quickly mitigate or address issues that may arise.

Securing content throughout the entire delivery chain — from the point of ingestion to when it is viewed on an end-user device.

Enabling content consumption and control for OTT providers.

Benefits for your business

Broadcast-grade reliability
Always-on, TV-quality streaming your audience can trust
Ensure your service stays online 24/7 with a self-healing network that eliminates single points of failure, dynamically routes traffic, and delivers the consistent, broadcast-quality experience audiences expect across devices

Seamless monetization
Smarter ads, stronger returns
Unlock new revenue streams with dynamic ad insertion that supports advanced formats, server-side beaconing, and cross-device delivery — helping you maximize ad inventory fill rates and increase return on content investment

Scalable global reach
Distribute everywhere, effortlessly
Efficiently distribute live and linear content across multiple platforms and delivery accounts from a single origin, ensuring reliable reach to global audiences while reducing operational complexity and cost

Real-time insights and control
Total visibility, smarter decisions
Monitor live-stream performance with powerful dashboards and real-time alerts, enabling proactive issue resolution, improved quality of experience, and actionable business insights to drive subscriber growth

Purpose-built for live

Akamai Media Services Live 5 (MSL5) has been purpose-built to overcome the challenges of providing 24/7 linear streaming services and to help enable content providers to meet the quality and performance expectations of their audiences by providing a true, broadcast-grade TV experience online.

MSL5 focuses on our customers' most important asset — their live content. Its modular architecture, which is compatible with Akamai Adaptive Media Delivery, combines reliable, scalable ingestion and origination with high-performance delivery of live video content.

MSL5 key capabilities

MSL5 offers purpose-built capabilities that operate in concert to provide unmatched reliability and quality to bring the TV experience to your online audience at scale. These capabilities include:

Low-latency support: MSL5 handles low-latency streaming protocols (HLS/DASH/CMAF), which ensures a 4- to 6-second end-to-end latency, reliably and at scale, to provide a broadcast-grade TV experience for online audiences.

Self-healing network: One of Akamai's core principles is to eliminate single points of failure in our solutions. MSL5 replicates content across multiple locations and dynamically assigns encoders to the best entry points. This approach enhances the reliability and availability of your service 24/7.

One-to-many (cross-account) delivery: Content providers must efficiently and flexibly distribute their content across multiple delivery channels. MSL5 allows multiple Akamai delivery accounts to easily access content from a single origin, simplifying the broader distribution of content across a variety of channels.

Dynamic ad insertion: The highly scalable server-side ad insertion component inserts pre- and mid-roll full-screen ads on both live and video-on-demand (VOD) streams, including time shifting. Click-through ads, companion ads, and shoppable ads are also supported. MSL5 customers can also create and monetize incremental inventory via new ad formats, such as in-stream ad formats, which are ideal for live sports streaming. It can be deployed with all ad decision servers to enable advanced capabilities, such as prefetching to maximize ad inventory fill rate and ad tracking via server- or client-side beaconing.

End-to-end Transport Layer Security (TLS) support: Akamai has added the ability to receive content over a TLS session from the encoder and maintain the delivery among components in the Akamai network (and out to end users) so that the content is transported securely from end to end.

System status and dashboard: A powerful system status provides a real-time global service overview (active connections, most viewed events, ingest throughputs) as well as hierarchical service views related to the origin streams and events that currently are streaming (or have been streamed). Custom notifications and alerts keep your team informed and in control of service performance.

An intuitive dashboard delivers comprehensive reporting, ensuring that you have the data that matters most. By harnessing the power of Grafana™, you can customize metrics to provide a tailored view of your operational data and improve your quality of experience. You can also get business KPIs that offer actionable insights into your service's performance and drive subscriber growth.

Stream and event creation management: With a provisioning time as short as 5 seconds, stream and event creation and management are streamlined via an intuitive graphical user interface (GUI) or through APIs. From the GUI, you can also easily create short-form clips like highlights (10- to 30-second clips) and event summaries (5- to 10-minute clips) from live streams that might interest your viewers.

Improved user experience: Online DVR and archive functionality improves user engagement and viewership, as it becomes possible to offer alternative viewing experiences, including "live rewind," for the end user.

Live to VOD asset creation: You can increase viewership by automatically creating content for catch-up TV, highlights, and content time shifting by converting live and 24/7 simulcast streams into standalone VOD assets.

AI capabilities: Some AI-driven features can be added to live streams, including speech to text, voice cloning, automatic highlights creation, and automatic SCTE-35 marker insertion.

MSL5 includes access to all of Harmonic's live video origin and workflow features for live streaming — ingestion, archiving, and supported output formats — and includes the following features: ingestion, REST APIs, archive, low-latency streaming, end-to-end streaming TLS support, system status and dashboard, and stream and event creation management. Required Akamai product: Adaptive Media Delivery.

To learn more, visit akamai.com or contact your Akamai sales team.

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