



CASE STUDY: Gnzo

How Gnzo Scaled Real-Time, Multi-Source Video with Wowza

SYNCHRONIZED MULTI-ANGLE LIVE STREAMS FROM 6+ MOBILE AND AERIAL RTMP FEEDS

Gnzo, the company behind the multi-angle streaming service fvLIVE, delivers immersive video experiences to audiences across devices.

When they streamed one of Japan's largest marathon events in 2020, they needed a robust and scalable video infrastructure to handle multiple RTMP feeds, transcode efficiently, and stream in HLS to viewers.

With Wowza, Gnzo successfully powered synchronized, multi-source live video, allowing viewers to switch angles in real time while maintaining smooth, reliable playback.



CUSTOMIZABILITY

Wowza supports Gnzo's hybrid cloud infrastructure, integrating seamlessly with AWS and internal systems.

RELIABILITY

Enables high quality HLS playback across devices, even under high concurrency during live events.

SCALABILITY

Ingests multiple RTMP inputs and transcoded media into HLS adaptive bitrate (ABR) streams for popular events.

GOALS

- Deliver a compelling multi-angle streaming experience across devices.
- Support large-scale, live events like the nation's largest-class city marathons with high reliability.
- Centralize RTMP streams from multiple field encoders and synchronize them for a seamless viewer experience.
- Transcode and distribute adaptive bitrate streams with low latency.

RESULTS

- Successfully streamed a major domestic marathon using Wowza deployed in a multi-zone AWS architecture.
- Combined multiple live video sources (bike, car, aerial) into a synchronized, viewer-driven experience.
- Aggregated RTMP feeds, performed timecode detection for synchronization, and encoded HLS streams with Wowza.
- Delivered high-quality, multi-angle playback to thousands of viewers with a leading Japanese CDN and OTT platform.



THE STORY

Gnzo is a Tokyo-based company that develops fvLIVE, a multi-angle live video platform used to deliver compelling sports, entertainment, and broadcast content. The platform gives viewers control over their live experience by allowing them to choose between different camera angles in real time. This requires an advanced technical backend capable of ingesting low-latency video, synchronizing multiple video feeds, and delivering multiple live video ABR streams with precision and reliability.

For one of the highest-profile marathon events in Japan, Gnzo was tasked with building a live streaming experience that could be viewed on different devices while delivering smooth transitions between various video feeds. **The setup included camera feeds from cars, motorcycles, and helicopters, all capturing different vantage points of the marathon in real time.**

These feeds were first sent from mobile broadcast vehicles to a centralized Cloud Gateway, then ingested into AWS via Direct Connect. At that point, Gnzo relied on Wowza's technology within their EC2 environment to serve several critical functions: aggregating RTMP streams from all sources, generating multi-angle video using timecode detection, and encoding the output into adaptive bitrate HLS.

Wowza Streaming Engine allowed Gnzo to build a highly available architecture across two AWS availability zones, with dedicated Engine, Media, and Proxy nodes that ensured redundancy, load balancing, and smooth video processing at every stage. **This hybrid architecture gave Gnzo the flexibility to scale resources for different events, while maintaining the reliability required for high-visibility public broadcasts.**

The HLS streams were delivered through a Japanese CDN and surfaced on a paid OTT platform, where viewers could select their marathon camera view, chosen from helicopter footage and featured athlete close-ups to women's race coverage and group formations. Wowza Streaming Engine managed the processing and CDN bandwidth resources needed to process multiple RTMP feeds into HLS streams, enabling near real-time camera switching for all viewers.

This multi-angle experience not only increased viewer engagement but also showcased Gnzo's ability to innovate in live video. **Wowza's backend infrastructure enabled a level of control, customization, and reliability that was essential for delivering on this ambitious project.** For Gnzo, Wowza became more than just a technical solution; it was a strategic partner in realizing a more immersive and user-centric vision for live sports broadcasting.



WOWZA'S FLEXIBILITY AND STREAM HANDLING CAPABILITIES WERE CRITICAL TO OUR SUCCESS IN DELIVERING SYNCHRONIZED, MULTI-ANGLE VIDEO FOR LARGE-SCALE EVENTS LIKE JAPAN'S LARGEST-CLASS CITY MARATHONS."
YASUHIKO TAKANO, LEAD STREAMING ENGINEER AT GNZO

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