



## Agora Launches Advanced Video Technology to Enhance Live Stream Quality

May 1, 2024

*Agora's Adaptive Video Optimization™ (AVO) technology dynamically optimizes performance at every step, from capture to playback, to deliver exceptional live video quality.*

SANTA CLARA, Calif., May 1, 2024 /PRNewswire/ -- [Agora, Inc.](#) (NASDAQ: API), a pioneer and leading platform for real-time engagement APIs, today unveiled its latest innovation, Adaptive Video Optimization™ (AVO) along with support for the AV1 video codec. This advanced technology harnesses the power of machine learning to dynamically adjust parameters at every step from capture to playback to deliver an enhanced live video streaming experience.



In today's fast-paced digital world, live video calling and streaming often encounters hurdles such as unstable network conditions, packet loss, and limited bandwidth. These challenges can result in freezing, stuttering, grainy video, and dropped connections, diminishing the real-time video experience and negatively impacting user engagement. Adaptive Video Optimization™ uses a series of advanced machine learning algorithms to address these common issues. By optimizing video quality in real time based on network conditions, device capabilities, and available bandwidth, AVO ensures the highest possible video quality and optimal performance even under varying network scenarios.

"Reliable and high-quality live streaming is essential in today's video-dominated media landscape," stated Tony Zhao, CEO and Co-Founder of Agora. "Our Adaptive Video Optimization technology enables smooth delivery of every video call and livestream—despite network variability, user's location or device type. These improvements empower Agora's customers to provide the highest-quality live video user experience."

Agora's commitment to delivering a seamless real-time video experience with AVO rests on three core pillars:

- **Optimized Image Quality:** Ensures that every frame is crisp, with enhanced contrast and vibrant details that make the viewing experience clearer and more engaging.
- **Unmatched Video Fluency:** Eliminates common streaming issues like buffering and stuttering, providing a smooth and natural flow.
- **Ultra-Low Latency:** Allows users to interact in real-time, whether with hosts or other viewers, and enjoy quick loading times and instant first-frame rendering for seamless transitions between video streams.

AVO™ takes a comprehensive machine learning approach to ensure the highest quality video streaming experience by optimizing every stage of the video processing pipeline — pre-processing, encoding, transmission, decoding, and post-processing. A key component of this solution is Agora's Coding Technology (ACT), designed to optimize user experiences by dynamically selecting the best video codec (like AV1 or VP9) based on device capabilities and interoperability requirements. By employing advanced techniques and cutting-edge compression methods, the technology adapts, configuring parameters dynamically and ensures crisp visuals, efficient bandwidth utilization, and a consistent, high-quality experience for all users, from the moment the video is captured to the final display on the viewer's screen.

From video capture through playback, the technology continuously adapts to changing network conditions and device capabilities, guaranteeing a seamless streaming experience. Any imperfections that may arise during transmission are rapidly mitigated, and the final video is polished to provide lifelike clarity, delivering a superior real-time video experience for scenarios ranging from telehealth consultations to live shopping and social media.


"Agora's Adaptive Video Optimization™ (AVO) drastically improved the real-time video experience in our app," said Ellard Capiral, VP of Engineering

at social live streaming app KUMU. "Users get smooth, high-quality video without freezes—even on slow connections and older devices. Since implementing AVO, we've seen a 30% increase in session length and engagement."

To learn more about Agora's Adaptive Video Optimization™ technology, check out this blog on [Optimizing the Live Video User Experience](#) and watch a side-by-side video comparison demonstrating superior real-time video quality.

#### **About Agora**

Headquartered in Santa Clara, California, Agora is a pioneer and global leader in Real-Time Engagement Platform-as-a-Service (PaaS), providing developers with simple, flexible, and powerful application programming interfaces, or APIs, to embed real-time voice, video, interactive live-streaming, chat, whiteboard, and artificial intelligence capabilities into their applications.

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