



New Breakthrough Could Revolutionize Online Video and Gaming Experiences

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Adeia Inventors Propose Innovative "Fast Lane" Approach to Reduce Lag and Buffering

SAN JOSE, Calif., Sept. 25, 2024 (GLOBE NEWSWIRE) -- Inventors from Adeia Inc. (Nasdaq: ADEA), have unveiled a groundbreaking new solution that could dramatically improve the quality of online video streaming and gaming. The paper, titled "Selective Enablement of L4S Transport for Latency-Sensitive Multimedia Delivery" has been accepted for presentation at the prestigious IEEE International Workshop on Multimedia Signal Processing.

"This research represents an exciting step towards a smoother, more responsive internet," said Serhad Doken, Adeia's chief technology officer. "We're eager to continue refining and testing our solutions, with the goal of industry adoption for improved user experiences as soon as possible."

Adeia's innovative approach centers around the concept of a special "fast lane" for internet traffic. This fast lane, known as "L4S" (Low Latency, Low Loss, Scalable throughput), is designed to prioritize time-sensitive data like live video streams and online gaming traffic, helping it reach its destination more quickly and reliably.

"Lag and buffering are some of the most frustrating experiences for users of online video and gaming," said Dr. Dhananjay Lal, Adeia's vice president of advanced R&D and one of the paper's authors. "Our proposed solution has the potential to transform these experiences, making them much smoother and more responsive."

The key innovation lies in Adeia's approach to utilizing the fast lane. Rather than sending all of a video stream or game's data through the fast lane, they suggest only using it when there is a surge in the data volume - such as when a player in an online game suddenly turns a corner, or during critical moments in a live sports event.

This "smart" use of the fast lane helps prevent the lane from becoming congested, while still ensuring that the most time-sensitive data reaches its destination quickly. The inventors at Adeia have also addressed the challenge of out-of-order data delivery, proposing a solution that splits the data into different QUIC streams for the regular and "fast lane," putting it back in order upon reaching the user's device.

"By intelligently leveraging the fast lane only when it's truly needed, we can make much more efficient use of existing internet infrastructure," said Christopher Phillips, senior director of advanced R&D at Adeia. "This could lead to significant improvements in user experience for a wide range of online applications, from gaming and live streaming to video conferencing and virtual reality."

The inventors at Adeia acknowledge that implementing changes like this across the entire internet would be a complex undertaking, requiring cooperation from various companies and organizations. However, they are optimistic that their ideas could be adopted and make a real difference in the near future.

The paper will be presented at the IEEE International Workshop on Multimedia Signal Processing, taking place from October 2-4, 2024, at Purdue University in Lafayette, Indiana.

About Adeia

Adeia invents, develops, and licenses fundamental innovations shaping how millions explore and experience entertainment in an increasingly connected world. From TVs to smartphones and across all types of entertainment experiences, Adeia's technologies allow users to manage content and connections smartly, immersively, and with greater customization. For more information, please visit www.adeia.com.

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