

OTT Success Series: Playing and winning at scale

The good news for video streaming is that demand is rising. The challenge: exactly the same thing.

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There's good news about the state of video streaming, with recent evidence suggesting delivery capabilities are on the rise. In one example, content delivery specialist, Akamai reported live streaming sessions associated with the 2017 U.S. Presidential inauguration amounted to nearly 9 terabytes per second, or 8x the peak amount of throughput associated with the same event eight years earlier¹. The takeaway, according to an Akamai senior executive: "More people than ever are watching video online, and it's being done across more devices at increasingly higher levels of quality."

That fact is undeniable, as any glance at the metrics undergirding today's video streaming environment will attest. There are more subscribers, viewers, sessions, content choices and video data bits flowing across the Internet than ever before. So the fact that the essential plumbing of the networks is growing in capability suggests positive things about the future.

But the prowess of the pipe is just one ingredient in the mix of contributors that must work in alignment to assure adequate scalability of video streaming. Without rigorous attention devoted to corresponding (and sometimes overlooked) elements, video providers face big risks of falling short.

One of the true tests of premium video streaming is the ability to rise to the occasion. When session demand spikes, providers must be able to meet the sudden surge in demand. An inability to do so is the reason why many high-profile failures have littered the early video streaming record books. From the early-era debacle of a Victoria's Secret fashion show in 1999 to the 2014 live stream of the Academy Awards, a number of signature events have been marred by the collision that results when overwhelming demand meets under-provisioned capability.

However, live events aren't the only vulnerable offerings. SVOD providers have faced daunting scale challenges as interest and stream demand rises for offerings that draw big audiences. There have been a handful of high-profile failures here that have tarnished the medium at large.

But whether content is live or archived, a failure to live up to scale demands results in similar byproducts: poor customer

experiences, subscriber churn, negativity around the category and in some cases, embarrassing headlines.

Careful orchestration

Combatting these maladies demands careful orchestration of complex forces. Handing off content to a capable CDN and hoping for the best isn't enough. Providers must arrange for simultaneous management of server provisioning, real-time encoding, intrusion mediation and bit-rate adjustments on the delivery side, and a host of considerations including session management, automated quality control and device compatibility on the client side. Integration with authorization and billing infrastructure must also happen seamlessly and immediately to avoid consumer frustrations when streams won't play because of behind-the-scenes conflicts and limitations.

Taken at large, there are four major category imperatives to be aware of as providers consider scale demands that correspond with a rising profile in the video streaming arena:

- **Consumer expectations.** A willful tolerance that once prevailed in streaming media has vanished as users become more experienced and less patient. Now, consumers simply expect premium video services to work – on any screen. As a result, providers must arrange for a comprehensive API framework that easily connects to third-party systems and enables rapid rollout to new devices.
- **Quality at scale.** Similarly, there's little leeway or regard (nor should there be) for moments when high stream demand strains resources. Delivering high-quality viewing during periods of high demand is the essential provisioning objective. A cloud-based infrastructure that can ramp to millions of concurrent users in seconds is a must.
- **Consistency of offering.** Providers must maintain consistency throughout the consumer experience as demand rises not only for simultaneous sessions, but for growth in the volume of video offerings presented. 24x7 network management capabilities plus rapid issue identification and resolution are essential.
- **A global perspective.** It's surprisingly easy to get caught off guard when ambitions for availability extend beyond

familiar geographies. Provisioning before the fact for multiple language, currency and offering variations is critical to avoid surprises as services scale internationally. A global footprint that supports worldwide distribution and geographic redundancy is increasingly important.

All of these considerations, of course, must extend across multiple business and monetization models, spanning subscription, advertising-supported streaming, “freemium” and upsell approaches.

The bottom line: The entire point of premium video streaming is to build and sustain successful, long-range businesses that draw on the unique and attractive capabilities of the medium. The industry has moved beyond early-era exploration and trials into a full-on pursuit of large-scale opportunity. With this imperative comes a critical need to play at scale in order to assure superb consumer experiences that happen uniformly all along the growth curve, and particularly at moments when demand spikes and volume soars. Flexible, globally deployed architectures combined with best-in-class integration involving third-party vendors are essential ingredients in the march toward streaming video success at an entirely new level.

Footnotes

1 Trump's inauguration broke live video streaming records, Techcrunch, January, 23, 2017, <https://techcrunch.com/2017/01/23/trumps-inauguration-broke-live-video-streaming-records/>



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