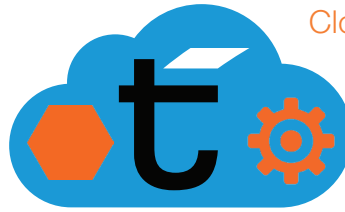adstream

Closed captioning
Watermarking
Media quality analytics
Vantage transcoding
NTSC/PAL conversion

Achieving Real-World Benefits Through Vantage Virtualization

How Adstream global ad services network realizes greater scalability and flexibility by virtualizing Telestream Vantage media processing within its AWS cloud platform

"We chose to build on Vantage because it's a proven, full-featured automation platform, and we trust Telestream to further expand its capabilities to address changing market needs."

– Steven W. Brown, Chief Operating Officer/North America, for Adstream, Los Angeles, CA. Adstream is headquartered in London.

What was needed?

With its global ad services network, Adstream has created a unified cloud platform that enables the world's major brands, advertising agencies, and media and entertainment companies to better manage the speed, quality, and costs of their ad campaigns.

Instead of engaging in the laborious, time-consuming process of contacting and managing siloed suppliers, such as production companies, post houses, and broadcast networks, Adstream gives users a single portal where they can quickly assess the status of their ad campaigns, make decisions and changes, manage media assets, and control costs at every stage of the process, including:

- Creative ideation, proposals and presentations
- Commercial production management
- Media asset management
- Media buys
- Distribution via broadcast, print, VoD, OTT and streaming media outlets
- Delivery and as-run verification
- Approvals, accounting, and reports

Since many of these demanding, time-sensitive creative, production, and distribution tasks involve media processing–to convert or repurpose ingested media files into whatever formats and standards are needed–Adstream's cloud-based service relies heavily on the Vantage media processing platform from Telestream to automate its high-volume media transcoding and quality analytics needs.

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While Vantage initially ran on hardware servers at Adstream's Burbank, CA-based data center starting in 2011, by 2017, the company realized far greater scalability, flexibility, and cost-efficiency when it converted its Telestream Vantage media processing platform to a fully virtualized configuration that seamlessly dovetails with its AWS-based infrastructure.

The Challenge

With a customer base of over 27,000 businesses and over 2 million media assets in its cloud storage environment, Adstream's customer base, and its need for media processing, have been steadily growing.

In the production management and global distribution of commercial spots, the need for media processing can fluctuate wildly, surging from tens, to hundreds, even thousands of requests coming in at once, then dropping back to lower levels. Each media file can require conversion into a myriad of formats, ranging from low-res proxies for preview to high-resolution MPEG2 or .MOV files that must meet the exacting quality and technical specifications posed by today's cross-platform distribution.

Committed to delivering services on demand without quality compromises, Adstream came to the realization in 2013 that its physical data center would have increasing difficulty keeping pace with surges in media processing demands. While they could acquire more capital equipment to add horsepower to process higher volumes, this could result in over-provisioning, where the expensive equipment just sits idle whenever demand drops.

The need to scale up and down dynamically–and pay for the extra capacity only when needed–drove the company to develop a "virtual private cloud" in 2017 based on the AWS cloud platform. Adstream developers preferred AWS because they were already comfortable with Boto and other scripting tools commonly used on AWS.

The Solution

Just as Adstream was building-out its AWS infrastructure, Telestream offered the opportunity to deploy Vantage media processing software in an Infrastructure as a Service (IaaS) cloud configuration. Adstream developers decided to use Vantage tools, such as RESTful APIs, to virtualize their Vantage to make its capabilities easily accessible from within their AWS private cloud service.

"By adopting this Infrastructure as a Service (IaaS) cloud model, which enables automatic dynamic scaling up or down, we now have greater operational flexibility to handle the peaks and lulls of our workload. We can instantly provision whatever level of compute power we need to satisfy customer demand, and cloud-based pay-as-you-go pricing enables us to better control costs."

– Steven W. Brown, Chief Operating Officer/North America, for Adstream

Since 2017, Adstream's virtualized Vantage has been cost-effectively leveraging AWS dynamic scaling to swiftly handle transcoding demands, to seamlessly accommodate workload fluctuations. To date, Adstream has integrated Vantage and other technologies to create end-to-end workflows and services for many cloud-based processes such as:

- Closed captioning using .SCC and other closed captioning files
- Watermarking, including Nielsen and Kantar schemes
- Media quality analytics, including LKFS loudness compliance
- High-quality Vantage transcoding
- NTSC/PAL conversion with Tachyon from Telestream partner Cinnafilm

"By moving Vantage to our fully hosted cloud service, we're not only maximizing our investment in Vantage software, we're also continuing to make use of the extensive python scripting and Vantage API development we had done over the years to customize our Vantage workflows with unique capabilities, like queuing algorithms to manage processing requests."

– Steven W. Brown, Chief Operating Officer/North America, for Adstream

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The Results

The Adstream platform is now robust enough that top brands, advertising agencies, and media and entertainment companies can collaborate with their creatives and suppliers, manage media assets, and execute global ad campaigns–complete with timely approvals, job tracking and reporting–even when the key participants are located in different places and time zones.

The platform itself is very broad, interfacing with a wide range of cloud services, including AWS S3 storage, AWS RDS regional database service, and distribution portals for over 75,000 connected media networks worldwide. More importantly, Adstream ensures a high degree of security by maintaining control over the media assets that customers entrust to their platform.

While Adstream is now fully deployed in the cloud, the company still operates a back-end infrastructure, including a large production services department that uses Avid editing and Adobe graphics systems. This facility also uses Telestream Switch Pro for quality control file inspection and correction, as well as Telestream CaptionMaker and MacCaption closed captioning software.

As their labor-intensive closed captioning workflow becomes increasingly automated, Brown estimates that they've been able to reduce the manhours they must devote to closed captioning services by 40%.

For more info, visit:

Adstream's website at https://www.adstream.com/

"This operational efficiency reduces overhead costs and helps increase profit margins, while freeing up our core staff to manage other pressing tasks at our growing company. We're also able to invest more time and money in improving front-ends and feature sets that our customers want."

"By building all of these Vantage-automated workflows into a single, unified AWS ecosystem, we're able to deliver an on-demand service model that inherently controls costs. And ultimately, we're helping our customers manage their own operating costs, media assets, and global ad management and distribution objectives."

– Steven W. Brown, Chief Operating Officer/North America, for Adstream

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