Video Quality

Ensuring Video Quality in a Cloud-Based Workflow

Pay TV operators, broadcasters, and OTT providers increasingly want to use cloud-based workflows to reliably deliver premium live and on-demand video content to consumers.

Video providers need a scalable and cost-effective way to convert and package video content into various formats, while ensuring optimal video quality from acquisition to delivery.
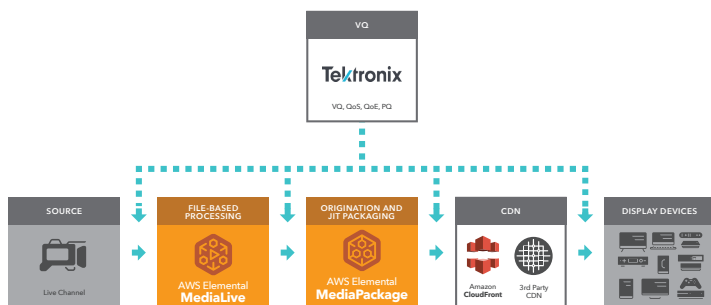
AWS Media Services are cloud-based services with pay-as-you-go pricing which provide customers the capability to ingest, process, package, and deliver video content at scale. AWS Elemental MediaLive is a real-time video encoding service and works in combination with AWS Elemental MediaPackage for content origination, just-in-time packaging, and encryption. AWS Elemental MediaConvert is a file-based video transcoding service with packaging and encryption capabilities and can function as a standalone service or within a larger video workflow.

Sentry and Aurora are cloud-based video quality control (QC) solutions from Tektronix that provide

automated video quality assurance and comprehensive QC, quality of service (QoS), quality of experience (QoE), and picture quality (PQ) measurements across any network. Customers use Sentry and Aurora with AWS Elemental MediaConvert, AWS Elemental MediaLive, and AWS Elemental MediaPackage to provide customers with secure, scalable, and efficient solutions for live and on-demand video workflows. Additional capabilities include standards compliance checks, DRM support, and features to enable next-generation video deployment, such as 4K, HEVC, and HDR.

Cloud-based video workflows provide a platform for new service innovation, flexibility, and quick time to market, all with a practical pay-as-you-grow model. Tektronix quality assurance solutions provide the visibility and tools to operationalize video networks and ensure top performance, proactive diagnostics, and the quality customers expect to minimize churn.

OVERVIEW

CHALLENGE

- Lower operator OPEX cost by managing upgrades and obsolescence of hardware
- Innovate to keep pace with new standards and technologies
- Integrate with a wide variety of third-party products

SOLUTION

- Abstract provisioning and management of live encoding and monitoring using cloud-based architectures
- Support for a broad range of codecs, resolutions, and features
- Open, published interfaces that provide choice and flexibility

BENEFITS

- Eliminate management of complex infrastructure
- Deploy 24x7 channels or event-based broadcasts with ease
- Accelerate time to market with highly customizable cloud-based solutions

Tektronix

"Tektronix provides content verification for AWS Media Services' video workflows, assuring a high quality live streaming and VOD experience"

– Dan Murray, Video Products, Tektronix

LIVE WORKFLOW

Live video workflows combine real-time encoding using AWS Elemental MediaLive and just-in-time packaging, origination, and encryption using AWS Elemental MediaPackage with Tektronix Sentry monitoring to reliably deliver linear broadcast and event-based content to consumers.

Cloud-based Tektronix Sentry and Aurora video quality assurance products are compatible with AWS Media Services, enabling video providers to process and deliver high quality video streams for broadcast television and multiscreen devices with the security, scalability, and simplicity of cloud-based solutions.

File-based video workflows incorporate transcoding using AWS Elemental MediaConvert with Tektronix Aurora file QC, and can perform content library conversion and creation of on-demand assets for broadcast and multiscreen delivery

Sentry monitoring and diagnostics, together with AWS Elemental

MediaLive and AWS Elemental MediaPackage, as well as the Amazon CloudFront CDN, deliver automated measurement and reporting on issues in live streams that impact customers' viewing experience the most, often before they lead to actual customer disruption. Sentry also offers true video quality of experience and picture quality analysis on encrypted networks. The software-based solution can be deployed where it's needed in the AWS Cloud or in hybrid network environments.

By using Aurora with AWS Elemental MediaConvert, video providers can automate file QC on Amazon S3 storage to ensure a reliable, high quality VOD viewing experience. For OTT services, Aurora's perceptual video quality and TekMOS picture scoring reveals any encoding and alignment issues to ensure a great viewer experience. Depending on how workflows are structured, Aurora can perform QC testing of files in Amazon S3 buckets from a web-based user interface, through an API, or watch folder automation.

FEATURES

DESCRIPTION

- Proactive end-to-end video quality assurance for cloud-based workflows
- Comprehensive QC, QoS, QoE, and PQ measurements
- Real-time live stream and file-based VOD verification and diagnostics
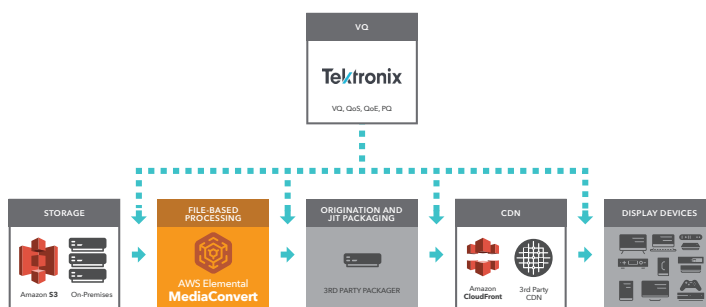
FEATURES

- Easily scales from small to very large cloud and hybrid networks
- Monitors network, assets, video, audio, ad insertion, and compliance
- Extensive QC tests for video, audio, and metadata accuracy

BENEFITS

- Picture quality analysis and detailed reporting of issues
- Visibility across ingest, encode, packager, and CDN workflow
- Automate file QC checks on Amazon S3 buckets or API

FILE-BASED WORKFLOW

Learn more at
tek.com/AWSElemental

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