

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 on-demand video content to consumers.

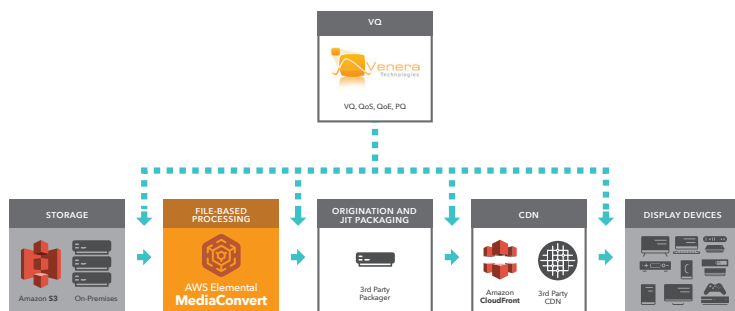
Video providers need a scalable and cost-effective way to convert and package video content into various formats, while ensuring optimal video quality from acquisition to delivery.

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.

Quasar is a cloud-based video quality control (QC) solution from Venera Technologies that provides end-to-end video quality assurance and comprehensive QC and picture quality (PQ) measurements across any network. Quasar used with AWS Elemental MediaConvert provides customers with secure, scalable, and efficient solutions for on-demand video workflows. Additional capabilities include standards compliance checks and features to enable next-generation video deployment, such as 4K and HEVC.

Quasar allows comprehensive checks to verify syntax, regulatory, and vendor compliance, and video/ audio quality. With support for all adaptive bitrate and broadcast/ archiving formats, Quasar is ready for a wide range of content workflows.

FILE-BASED WORKFLOW



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



“The combination of Quasar QC and AWS Elemental MediaConvert brings great value, allowing users to instantly scale their operations to support business growth.”

– Fereidoon Khosravi,
SVP Business Development,
Venera Technologies





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

Quasar offers a comprehensive set of validation checks for audio, video, container, adaptive bitrate, and IMF/DCP packages. As a native cloud application, it also offers the following advanced capabilities:

Dynamic scaling - The ability to automatically initiate and provision QC processes as needed provides the flexibility to quickly scale up and down to meet content volume bursts. This reduces infrastructure costs since computing resources are brought up only when needed.

Regional resourcing - Automatically provisions computing resources in the same region as the content. This lowers latency and costs

due to local content access and provides immunity from inter-region connectivity issues.

SaaS & Private editions - With SaaS, Venera Technologies manages the entire QC infrastructure while users simply use the QC service without deploying any of their team or infrastructure resources. For organizations that want to deploy in a virtual private cloud (VPC), Private edition is also available.

OPEX - Offered as a usage-based service, customers can choose plans based on their estimated content volumes and can move to a higher or lower plan when needed.

Quasar is 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 and pay-as-you-go pricing.

Job ID	File	Video	Template	Size	Status	End Time	Support
1007	QC_HTTP_COMP.mp4	ProRes	BASIC TESTS	144.45 MB	Succeeded	JAN25-2017 09:20:57	
439	QC_HTTP_COMP.mp4	ProRes	Digital HD	144.45 MB	Succeeded	APR24-2017 17:20:57	
438	QC_HTTP_COMP.mp4	ProRes	Digital HD	144.45 MB	Succeeded	APR24-2017 17:19:24	
438	AVC_MTRL_760_200.mf	H264	BASIC TESTS	420.06 MB	Succeeded	APR12-2017 07:07:02	
447	AVC_MTRL_760_200.mf	H264	BASIC TESTS	420.06 MB	Succeeded	APR12-2017 04:40:23	
371	AVC_MTRL_760_200.mf	H264	BASIC TESTS	420.06 MB	Succeeded	FEB25-2017 08:07:02	
4507	N.A.	59	00:00:01:29	Chrome (2x) level was less than 16.00 for Frame Index 59 to 59. Min Cb level found to be 1 for the Frame Index 59			
4508	N.A.	59	00:00:01:29	Chrome (2x) level was less than 16.00 for Frame Index 59 to 59. Min Cr level found to be 2 for the Frame Index 59			
4509	N.A.	74	00:00:02:14	Luma level was less than 18.00 for Frame Index 74 to 74. Min Luma level found to be 1 for the Frame Index 74			
4507	N.A.	74	00:00:02:14	Chrome (2x) level was less than 16.00 for Frame Index 74 to 74. Min Cb level found to be 1 for the Frame Index 74			
4508	N.A.	74	00:00:02:14	Chrome (2x) level was less than 16.00 for Frame Index 74 to 74. Min Cr level found to be 1 for the Frame Index 74			
4511	N.A.	85	00:00:02:26	Frame Format Detected From Frame Index 85 to 112.			
4511	N.A.	115	00:00:02:25	Frame Format Detected From Frame Index 113 to 142.			
4511	N.A.	247	00:00:11:17	Frame Format Detected From Frame Index 245 to 247.			

Quasar

FEATURES

DESCRIPTION

- File-based cloud QC service for broadcasters, OTT, and online video platform (OVP) services
- Native cloud QC system allowing use of AWS capabilities
- Available as a SaaS or for installation in a VPC

FEATURES

- Dynamic/auto scaling for handling content volume burst
- Regional resourcing for reduced latency and high reliability
- Comprehensive checks for audio, video, container, and ABR packages

BENEFITS

- Fast QC speed with dynamic scaling allowing quicker results
- OPEX-based model aligns investment with business growth
- Easy to use and integrate with other cloud workflows

Learn more at www.veneratech.com/quasar

