

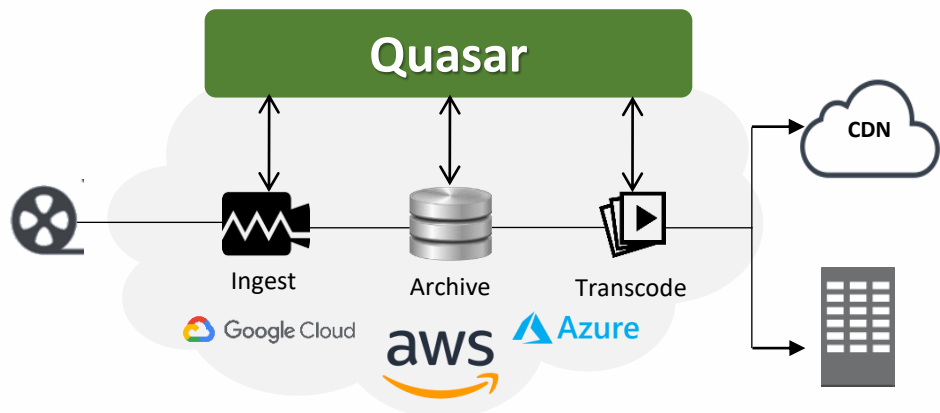
Quasar

Native Cloud file-based QC Service

Quasar is industry's first native cloud based QC service available as 'SaaS' or installed in 'Virtual Private Cloud'. It is a perfect fit for workflows using content ingest, transcode and delivery on the cloud.

SaaS	Private
QC without infrastructure worries	QC within your own environment
<ul style="list-style-type: none">- Hosted Service on multiple clouds- Use with REST API- Dynamically scalable- Automatic regional resourcing- Flexible monthly plans	<ul style="list-style-type: none">- Resource tagging for secure usage- Use with REST API- Dynamically scalable- Automatic regional resourcing- Flexible monthly plans

Designed to meet the requirements of OTT and Content Providers, Quasar comes with flexible, usage based monthly & annual plans.



Quasar combines the power of Pulsar QC with worldwide reach and compelling economics of Cloud infrastructure. With "Quasar SaaS" option you can focus on delivering pristine content to your customers while we manage the infrastructure for you. "Quasar Private" is optimized to run under your own Virtual Private Cloud infrastructure.



With its easy scalability, Quasar eliminates long content queues and waiting period for any content volume. This flexibility and instant access, allows you to start scalable QC operations for all your cloud based assets without worrying about any infrastructure hassles.

Quasar Advantages

Multi Cloud Support	Optimized to process content present on AWS, Azure, Google Storage and Backblaze
Storage Browsing	Ability to browse content on your native cloud storage
REST API	Easy integration with REST API
Dynamic Scalability	Adjust QC capability to perfectly match your content volume with dynamic scalability
Secure	Support for pre-authenticated URL, user roles and whitelisting
Low latency	Automatically select the processing instance in the same region as the content
Fast Provisioning	No installation or hardware provisioning required, start using QC within minutes
Popular Templates	Factory templates for Netflix, ARD-ZDF, iTunes, Amazon Prime and DPP
Deployment Flexibility	Based on your business requirements, choose between our 'SaaS' or "Private" options.
Payment Flexibility	Volume based pay-per-use plans that align with your business

Formats

Container	MXF, GXF, LXF, MOV, MP4, 3GPP, MPEG-2 TS, MPEG-2 PS, FLV, WMV, AVI, WAV, BWF, AIFF, Smooth Streaming, HLS, MPEG-DASH, IMF, DCP, Elementary
Video	H.265, H.264 (incl. AVC-Intra 50/100 and SONY XAVC), MPEG-2 (incl. D10, XDCAM, HDCAM, IMX-30/50), VC-1, DV (incl. DVCPro25, DVCPPro50, DVCPPro100/HD), Avid DNxHD (VC-3), Apple ProRes, JPEG-2000, Canopus HQ/HQX
Audio	LPCM, AES3, SMPTE 302M, MPEG-1/2, AAC, HE-AAC, WMA (Standard & Professional)
HDR	Dolby Vision, HDR-10, HDR-10+

Verification Checks

General	Compliance, Factory templates - Netflix, DPP, ARD-ZDF, Loudness (R128, CALM, OP-59, ARIB), iTunes & CableLabs
Track Layout	Video Property: Black Frames, Color Bars, Freeze Frames, Slate Audio Property: Mute, Test Tone, Silence
IMF/DCP	CPL based analysis, Package validation, CPL cross checks, CPL checks, PKL cross checks, OPL checks, Assetmap check, IMSC checks, Sidecar checks
ABR	Playlist cross checks, Segment cross checks, Profile cross checks, Encrypted Packages
Video Parameters	Codec, Video Format, Color space, Chroma Format, Color Matrix, Scan Mode, Duration, Frame Rate, Resolution, Display/Pixel Aspect Ratio, GOP Length, GOP Type, Field Order, Frame Sizes, Buffer Size, Bitrate (CBR/VBR), Profile/Level, Entropy Coding, Reference Pictures, MBAFF, Timecode Discontinuity, Timecode frame drop, 2020 Color Space
Video Quality	Black Frames, Blockiness, Brightness, Cadence, Chroma Hits, Chroma Line, Clipping, Colored Frames, Color Bars, Color Gamut, Combing, Credit Roll, Camera Dead Pixels, Dead Pixels, Digital Hits, Field Dominance, Flash Frames, Freeze Frames, Luma/Chroma levels, Cadence, Half/Full lines, Bar Artefacts, Letter/Pillar Box, Active Region, Photosensitive epilepsy (Harding), Low Video level, Low Black level, FBI Warning Card, URL detection
HDR Parameters	HDR Formats, Reporting of HDR10, HDR10+, and Dolby Vision metadata Static Metadata: Verify (display Color primaries, mastering display luminance, content light level) Dynamic Metadata: Compliance, Validate HDR10+ metadata (MaxSCL, Average Max RGB, Distribution values, Tone-mapping information, Targeted system display maximum luminance), Validate Dolby Vision metadata (Metadata version, shot must not contain <0,0,0> in level 1 metadata, Detect duplicate dynamic metadata, Crosscheck canvas aspect ratio, Crosscheck Video track information, Crosscheck (Calculated/metadata) Image aspect ratio
Audio	Codec, Sampling Frequency, Quantization Bits, Channels, Bitrate (CBR/VBR), Drops, Silence, Mute, Test Tones, Loudness (R128, CALM, AGCOM, ARIB, Speech Gated), Loudness Range, Dialnorm, Sample Peak (DBFS, PPM), True Peak, Dual Mono, Clipping, EAS tone, Phase Mismatch, Nielsen Watermarks, Language ID, LFE Validation, Mosquito Tone, Quasi Peak
Container	Conformance, Format, File Size, File Name Validation, No of streams, Incorrect extension MXF: Version, Operational pattern, Timecode presence/track count/mode/start value/source, Index table presence/location/completeness/correctness, Origin parameters, KLV alignment grid/fill elements, Partitions validity/Status/Completeness/Instance count/Index table presence/Essence presence/Max length, Essence wrapping/external check/referencing/partition strategy, Audio track numbers/element size/channel count/configurations, Descriptive metadata presence/scheme, Run-in sequence, Random index pack, Segmentation track, File package count, Index edit rate, Index duration, Audio/Video sample rate, Audio/Video stream type, Audio/Video edit rate, Video line map, System item presence, Block Align, Channel status mode, Fixed channel status data, Stored F2 offset, Display F2 offset, Sampled X/Y offset, Display X/Y offset, Identical GOP indicator, Edit unit byte count, Slice count, Dark metadata, Timecode frame drop, Audio locked/unlocked status, Audio ref level, Index start position, Single index location, Single essence location, Forward index direction, Image start/end offset, Colour siting, Padding bits, Black ref level, White ref level, Colour range, Constant B picture flag, Single sequence, Low delay, AS-02 Support Transport Streams: SCTE35, Program count, PCR Jitter, Packet Length, PID Usage, PIDs, PID Bitrate, Packet Intervals, PAT checks, PMT checks, Stream checks, PES checks, Language Metadata Verification QuickTime: Checks and correction for PASP, FIEL, GAMA, CLAP, COLR. Channel Configuration, Track properties, Movie properties, Language Metadata Verification, Check disabled tracks, Check multiple codec entries, Check Timecode properties
Cross checks	Video-Container: Width, Height, Frame rate, Aspect ratio, Bitrate, Profile/Level, Scan mode, Field order, Chroma format, GOP type, GOP length, B-pictures, Low delay, Duration, Component depth Audio-Container: Sampling frequency, Bit depth, Channels, Bitrate, Duration Audio-Video: Duration in meta-data, Actual duration
Meta-data	Closed Captions (608/708) presence/conformance/format/location, AFD, Bar, V-Chip, Teletext