

Deliver High-Quality Video to Any Screen at a Lower Operational Cost

To stand out in today's video world, content owners and service providers need to deliver high-quality video to all devices, including high-end TVs, at the right compression and delivery cost. Defining the optimal bitrate for the right device goes a long way toward lowering your compression costs. Synamedia's Quality-Aware Video Compression solution makes that possible, delivering continuous quality insights thanks to a unique objective quality metric.

The arrival of streaming, meanwhile, has changed the video delivery landscape. Now it is easier to introduce new technologies that enable dynamic delivery of different streams to different devices to lower your delivery costs. With the arrival of Synamedia's Quality-Aware Video Compression, you can offer high video quality to any compatible device at the right cost.

Personalized, AI-driven compression with objective video quality insights

Synamedia's Quality-Aware Video Compression is an end-to-end solution that enables the best video quality at an optimized cost. The solution revolutionizes video compression with a quality-aware, AI-based technique for optimizing each system's bitrate under all circumstances and scenarios. This groundbreaking approach can define different quality requirements based on a video channel's importance, and enables quality-aware video streaming with fewer bits to deliver operational cost savings of up to 40%.

Provide personalized video quality

Since different people have different video tastes, the solution includes several tools and settings to "personalize" compression to your users' liking and to the content at your disposal.

Support traditional TS and video streaming

Supporting both traditional video codecs, such as MPEG-2, AVC and HEVC, and next-generation codecs, such as AV1 and VVC, our solution works with traditional transport stream (TS) and video streaming. In addition, it supports a full range of audio codecs up to full immersive audio and high-end resolutions, including UHD and even 8k.

Leverage objective video quality measurements

Synamedia's objective quality measurement is based on predictive VMAF, a quality metric that runs in real time during compression, while minimally impacting

required resources. This enables you to gain quality insights and receive alerts when video quality falls short of your needs.

Control the quality you desire

Different video channels and profiles may have different quality requirements based on their importance. With our solution, you define the desired quality via the predictive VMAF metric, while Synamedia's industry-leading video compression technology automatically selects the variable bitrate. The solution also optimizes your adaptive bit rate (ABR) ladder; by using fewer bits, you enjoy streaming cost savings.

Utilize a green, sustainable solution

Combining the most advanced CPUs and AI tools during compression, our solution lowers energy usage and the number of required servers to support a greener, more sustainable world.

Cover the full range of video devices

Quality-Aware Video Compression has the industry's most complete video processing feature set that allows you to drive users' video devices, including high-end TV sets. The solution fully integrates with Synamedia's virtual Digital Content Manager (vDCM) and supports all encoding requirements, including high dynamic range (HDR), high frame rate (HFR), and watermarking.

Features and Benefits

Lower content delivery network streaming costs

- Use quality-controlled compression (variable bitrate) to reduce the number of bits per channel while maintaining the highest quality
- Move to a multi-codec environment with the latest codecs (e.g. VVC, AV1) to send the lowest bitrate that reception devices can handle
- Optimize streaming bits based on each individual video channel and timebox depending on time of day/night to further reduce expenses

Provide quality insights with Viewer Digital Twin

- Offer continuous objective video quality insights to address each compressed service
- Get a historical overview and receive alerts and visual insights to identify when quality falls below your requirements
- Leverage a strong, user-friendly analysis tool to gain quality insights

Reduce energy consumption

- Utilize latest-generation CPUs to increase density and lower total energy consumption
- Cut down the number of required CPU cycles to reduce energy requirements while maintaining video quality

Simplify and enhance operations

- Easily set up channels, including event-based ones, to accelerate time to market
- Operate according to a dynamic, use case-specific bitrate rather than a fixed bitrate to ensure continuous high video quality
- Leverage individual video channel and timebox data to optimize compression performance based on users' quality demands at any time of the day
- Use objective quality insights to optimize your adaptive bitrate (ABR) ladder

Highlights

- Features Synamedia's industry-leading video quality (VQ)-based compression optimization
- Delivers unique in-house statistical multiplexing in the DASH domain
- Provides channel-sharing strategies that support myriad full-resolution primary channels and SD sub-channels
- Enables retransmission assurance and flexibility for cable affiliate distribution
- Includes software-defined video processing to support cloud deployments
- Is available as a cloud-enabled managed service
- Offers pay-as-you-go/subscription and pay-as-you-grow/scalable

About Synamedia

Synamedia delivers, enriches, and protects video. Our cloud-native and SaaS solutions empower customers to scale and monetize video services efficiently, ensuring low-latency delivery and exceptional image quality. Our Video Network portfolio includes video distribution, streaming, Edge CDN and multi-CDN management, monetization, ad insertion, cloud DVR (cDVR) and time-shift TV, video compression and processing, and cloud and IP transition.

Next Steps

To learn more or to book a demo, [contact us](#).