PRODUCT BRIEF

LightFlow 4K
› by epic labs

Video streaming optimizer to enable 4K business models.

Viewers are becoming very exigent about the quality of the content they watch, regardless of the way they consume it. Content formatted in 4K has for long been a promise. Successful 4K online video business models are more the exception than the norm. Online content publishers face two main challenges to succeed: high delivery cost and limited reachability within their audience.

LightFlow 4K enables business models by dramatically reducing the Total Cost of Ownership to deliver 4K video assets and by largely increasing the likelihood of viewers to consume 4K content seamlessly.

Business Benefits

› Reduced Total Cost of Ownership

› Improved video perceptual quality

› Increases viewer engagement

› No latency introduced

› API-based. Smooth integration

› Interoperable with any existing ecosystem

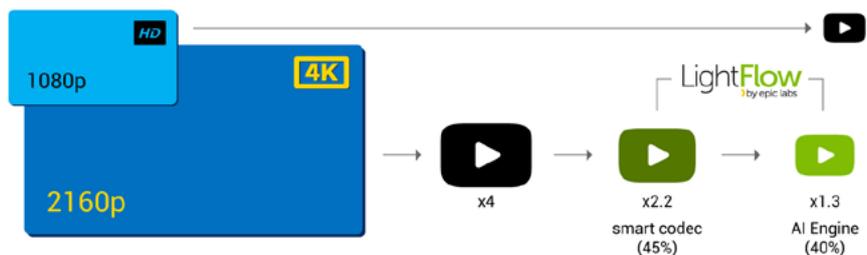## › Higher resolution: more information, unless...

The 4K standard defines 2160 points for vertical resolution, which means an effective picture size four times HD size (1080p). Unless any optimization occurs, preserving the same granular image accuracy from HD would result in a stream 4 times heavier to store and 4 times larger to deliver in 4K.

LightFlow 4K provides two main efficiency gains:

› It optimizes stream quality upon unique combination of bitrate and renditions. Therefore, videos are ~40% lighter.

› It is based on a neuronal network trained with more efficient codecs (H.265 and VP9). Videos are additionally ~45% lighter.

LightFlow combines the smart codec selection and the Artificial Intelligence Engine efficiencies so the resulting streaming signed in 4K is, in average, just about 1.3 times the size of the same HD signal.

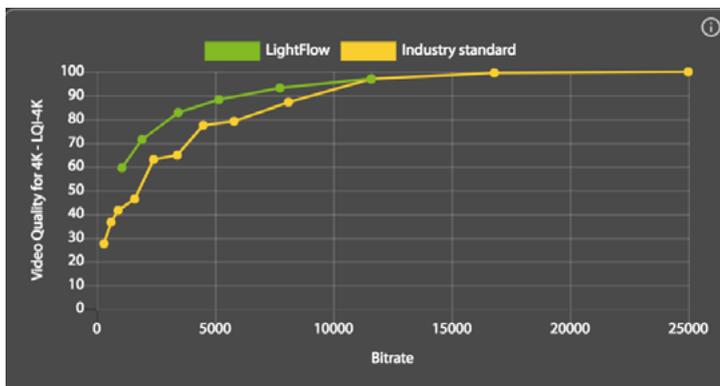# Video streaming optimizer to enable 4K business models.

The effective size reduction that LightFlow performs over any video signal not only triggers economic benefits to publishers derived from a more effective delivery workflow. Lower bitrates also mean:

❯ More engaged audience benefiting from less buffering and shorter start up time.

❯ Faster Time-To-Market. Encoding 1 minute of video at 8Mbps is faster than encoding the same 1 minute of video at 15Mbps. Additionally, the parallel video processing included in the LightFlow Ultra-Fast Encoding shrinks even more the whole workflow time.

❯ Bandwidth at home Internet services is often shared by family members. An effective reduction in file size allows more signals to be stream over the same overall bandwidth. Furthermore, some Wi-Fi networks have bandwidth limitations that would hinder video streaming at high bitrates. LightFlow enables users under these conditions as suitable consumers for 4K content.

LightFlow 4K Product Features

❯ AI-based Optimizer Analysis

❯ Transcoding

❯ Packaging

❯ Per Title and Per Scene

❯ Ultra HD 4K (H.265 and V9)

❯ Modular deployment

❯ Interoperable. API-based

Quality remains intact.

Based on the same technical foundation than **LightFlow**, the AI engine predicts the Quality Index for each video simulating bitrates and renditions up to 2160p. The engine assigns the **LQI-4K** measurement for every potential encoding parameters combination choosing the ones that deliver the highest quality at the most efficient bitrate. The result is a video which is optimized, where the perceptual quality remains at the highest value and, while the rest of the workflow benefits from a lighter file.

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