WHY QC AND MONITORING ARE KEY FOR **OTT SERVICES**

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Over the last few years, OTT video consumption has taken off rapidly and continues to grow at pace. More than 310 million connected households will have at least one OTT service by 2024, according to Parks Associates. Today, viewers expect a high quality of experience (QoE) on every screen. Research suggests that if there is any buffering or issues with the audio/video, consumers will seek a different service.

With the current pandemic gripping the world, streaming video networks are working overtime as consumers stay at home and watch services such as Netflix, Disney Plus, and Amazon Prime to keep themselves entertained. Pay-TV providers and broadcasters in general are also seeing an uptick in demand for their content and services. With this increase in demand, there is an even greater potential for something to go wrong and impact end-users' quality of service (QoS). Jitter, packet loss, audio sync issues, blank screens, HTTP errors, and more can ruin the video streaming experience and cause dissatisfaction.

Now more than ever, it is important to ensure that QC and monitoring remains among the highest level of priorities for OTT service providers and broadcasters. In particular, a holistic approach to end-to-end QC and monitoring is critical to providing a good QoE. By making an investment in end-to-end QC and monitoring, service providers and broadcasters can ensure higher customer satisfaction and retention.

WHAT MAKES THE OTT WORKFLOW COMPLEX

There is a key reason why having a holistic solution for QC and monitoring is essential:

errors can happen at any point in the OTT workflow. They can happen from ingest to post-transcode, post-origin server, CDN, and at the edge. At the ingest stage, the quality of the original signals needs to be assessed to see whether it contains errors or is of poor quality. A monitoring system can help with root cause analysis, taking the guesswork out and improving efficiency.

Monitoring the transcoding process is also vital, enabling OTT service providers to detect errors within the multiple versions that exist of each stream. At the post-origin server phase, content is packaged and put on the origin server. That's where profile alignment, encryption, and server related issues can often occur. At the CDN point of the workflow, high-level monitoring can be used to detect issues that might cause long join times or frequent stalling and switching during playback.

The final piece of the puzzle is monitoring ABR streams at the edge. Since OTT video is delivered over an unmanaged network, service providers don't have control over certain factors that can affect quality. However, they can gain insight as to where and what type of problems are encountered and improve QoE.

WHAT MAKES UP A HOLISTIC SOLUTION

Given the significant number of errors that can happen all throughout the OTT workflow, the case for end-to-end OTT monitoring and QC is clear. There are several important capabilities that make a holistic, non-fragmented, and end-to-end solution the most effective at detecting and resolving video streaming issues.

First and foremost, holistic QC and monitoring solutions are software-based. While many monitoring systems today are built on custom hardware, having a software-based solution allows OTT service providers and broadcasters to take advantage of newer, faster processors for optimum performance.

Secondly, holistic solutions feature centralised monitoring, offering OTT service providers and broadcasters insight into what's happening at each and every point of the workflow. When an error occurs, even if it is minor, the monitoring system will provide all of the relevant details. A centralised monitoring approach allows for errors to be caught quickly, bringing efficiency to the troubleshooting process and assuring the delivery of flawless quality on every screen at all times.

Covid-19 has significantly impacted streaming consumption patterns. According to a recent report from Conviva, during the month of March 2020, on-demand content consumption grew 41 per cent in Europe.

Ultimately, people will go back to work and spend less time in the home. But many will keep their video streaming service subscriptions after recognising the entertainment or news value. Using a holistic, non-fragmented, end-to-end solution for QC and monitoring of traditional linear and OTT channels, service providers can deliver a superior QoE and QoS, retaining those new subscribers. ∎