

# **Evaluación del rendimiento del servicio de videostreaming adaptativo en redes inalámbricas**

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YouTube Live is one of the most popular services on the Internet, enabling an easy streaming of a live video with acceptable video quality. Thus, understanding user's perception of this service is of the utmost importance for network operators.

The image Quality delivered and user videoplayback behavior on YouTube Live streaming are important keys to ensure an adequate Quality of Experience (QoE). In this paper, an analytical model, and stacked Bar Graph to estimate the QoE for encrypted YouTube Live service from packet-level data collected in the interfaces of a wireless network is presented. The inputs to the model are Transport Control Protocol (TCP)/Internet Protocol (IP) metrics, from which two Service Key Performance Indicators (S-KPIs) are estimated, namely video quality level (itag) and, videoplayback connection ratio. The model is developed with an experimental platform, consisting of a user terminal agent, a WiFi wireless network, a network-level emulator, a Mitmproxy and a probe software. Model assessment is carried out by comparing S-KPI estimates with measurements from the terminal agent under different network conditions introduced by the network emulator.