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Four themes evolving in the OTT industry

TATA ELXSI

Theme 1

Forget last mile issues; last yard issues are in focus

Quite a lot of focus in the industry has been on addressing the last mile. CDN companies tried to address this by introducing more POP points, aggressive caching, and more quirks. Telcos are fighting this through a slower and steady battle by talking about g.Fast, FTTH, and of course, 5G.

Now we see more focus on the last yard issues. OEMs are trying to address this issue with Intelligent QoS (definitions vary from case to case), WIFI-mesh, WIFI 6, and much more. Still, there is a lot to be done on the player optimization and OTT app side to balance between high-FPS video and the transient nature of in-house or on-travel network scenarios. While road testing and Test houses were some of the approaches companies took, the quality of data is very unreliable, given the sheer number of temporal and spatial factors contributing to the wireless networks' nature.

We see an emerging trend of collecting a reusable and co-relatable set of data between video QoE and network vectors. Early experiments and efforts were in terms of player-level QoE impact of the network. Now integrating QoE with Wi-Fi simulators and simulating 3G/4G conditions are all going on in the industry.

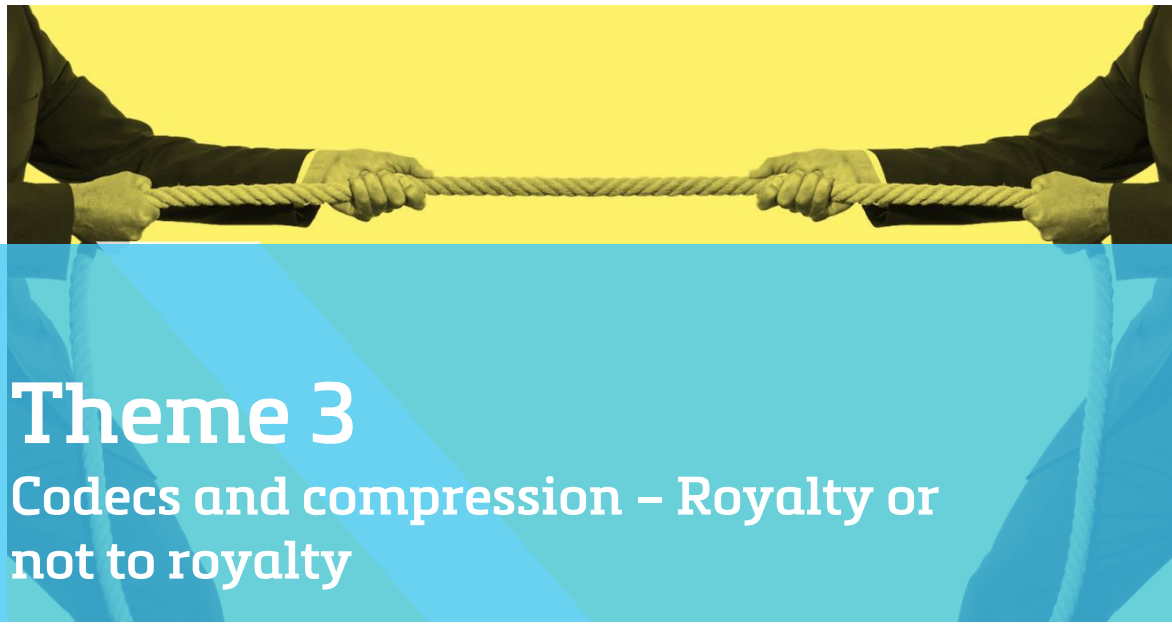
No doubt end customer will benefit from all these.

Theme 2

User experience and QoE - definitions are starting to blur

While the quality of experience is often covered under the video, we see the definition itself is blurring. From video startup time to app startup time, from navigation time to ad transition time and more, the metrics measured are expanding. With voice-activated assistants coming into end-user life, the definition window of the startup time itself has changed. With multi-device interactions and distributed/shared content consumption models on the rise, user experience is often blurred into QoE expectations.

While some customers adapt to customer expectations, the sheer combinations and compatibility challenge these presents are humongous after all, the purpose of the industry itself to solve such challenges.



Theme 3

Codecs and compression – Royalty or not to royalty

Compression was the original purpose of the codecs, then security piled on that purpose. In this part of the tech world, there are multiple battles. While technologists fight over compression ratio vs. quality of the video, business folks fight over the royalties.

AV1 was introduced as a panacea of all royalty problems. All the big tech companies threw weight around this. However, now Sisvel has come up with a list of 1050+ IPs showering confusion of the royalty-free claims. Time will say who wins the battle. If history has to be anything to go by, directions can range from out of court settlements or reduced royalty or death of AV1 (after all, nobody wants years and years of legal battles)

Traditional MPEG route advancement is the VVC direction. Some studies show close to 35% better compression for UHD content compared to AV1. AV1 camp is already working on AV2. The biggest challenge in large-scale adoption of any new codec is the compatibility with the existing devices. A typical two-year consumer device upgrade might not be of much help, mainly due to late technology adopters' long tail.

However, we see customers starting to think about maturing their A/B video frameworks to production to address codecs' parallel provision. YouTube and Facebook have been doing this for a while. If only CDN and encoding companies co-operate on cost, we could see more companies providing large-scale multi-codec streams.

For the H.264 fans, we don't see H.264 going out of circulation for at least the next 3 to 5 years.

Theme 4

Smart TV world is heating up

Roku was smart to license the technology for the TV manufacturers. It was a godsend for the Tier 2 and Tier 3 TV OEMs to compete against the LG WebOS and Samsung Tizen.

Android TV is catching up very fast. Amazon is also trying to get its pie on the TV OS market. Comcast is already drawing up TV plans with their RDK option with their pitch to the smartTV market.

But why is this all heating up? It is visible that Apps are new TV channels. Smart TV is the most common way of content consumption. Whichever platforms aggregate most of the Apps takes a significant share.

Android TV seems to go the Microsoft way (90s MS strategy of flirting the OEMs and capturing the significant share). Comcast is a bit late in the game but might pull rabbits out of the hat. We need to wait and watch on the FireTV case.

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About QoEtient

QoEtient is a QoE improvement platform that can identify QoE issues before the customers see them. QoEtient helps develop strategies to improve the QoE proactively. It acts as a critical quality gate in the software development process.

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