The need to keep ahead of the rapid changes in media services

Shifting to experience-led, data-driven, open platform-based model

Over the past few years, intense competition within the media industry has forced broadcasters, content owners and service providers to explore and leverage newer channels of monetization, leading to rapid transformation of the media services landscape. The media industry is witnessing a blistering pace of change due to growing number of delivery channels and consumption devices.

Trapped between heavy churn rates, erosion of average revenue per user (ARPU), increasing operational costs and complexities in service deployments, organizations are adopting innovative approaches towards business, technology and cost-effective operations. With the advent of online video platforms and subscription-light Over-The-Top (OTT) providers, the video ARPUs of Multichannel Video Programming Distributors (MVPDs) are shrinking. In order to retain market share, they are launching attractive skinny packages for video consumption on BYOD, online streaming devices bundled with broadband, and mobile subscription-based offers.

TV Everywhere and OTT video services

Today's empowered customers demand premium and personalized content available ubiquitously and delivered seamlessly. The convergence of telcos, IT infrastructure and media is influencing how we capture, process, transform, deliver and consume content anytime, anywhere. OTT and TV Everywhere services are changing the very definition of TV, thus creating a highly competitive and diversified landscape, which is helping evolve and change users' viewing expectations. Broadcasters and service providers are increasing their focus on live TV OTT propositions, on demand content, skinny bundles and personalized experiences.

To enable OTT and TV Everywhere service rollouts, MVPDs need to:

- Create a frictionless user experience across multiple platforms for video discovery and consumption
- Transform traditional business models and create alternate source of monetization such as tiered streaming, cloud DVR and dynamic ad insertions
- Extend video reach, discovery and contextual recommendation for wireless subs
- Leverage original content partnerships to create differentiation

Next gen broadcast technology

The broadcast industry is also rapidly evolving, enabling a plethora of opportunities for industry and technology collaboration to achieve intuitive and immersive audience experiences. The next generation of broadcast television technology intends to deliver UHD & SUHD video content, immersive and customizable audio experiences, advanced emergency alerts, and personalized broadcasts with interactive features to give viewers the content that is most relevant to them.

The new advances in broadcasting technologies accommodate future payload types with wide video views, full 3D light field video user experience, orchestrated media and flexibility to deploy customized application and presentation layer services. The repacking of broadcast spectrum, leveraging orthogonal frequency division multiplexing (OFDM) modulation and similar enhancements make the next gen broadcast more applicable to mobile reception and IP data management with broadband capabilities. Moreover, this enables side loading, which becomes an effective way of delivering content with guaranteed reliability to any location.

Migration of video workflows to cloud

The changing rules of the game are forcing traditional network-heavy MVPDs to adopt infrastructure-light and cloud-based pay-per-use infrastructure. With the capability to handle media specific operations like content processing, editing, repurposing, metadata transformation, content management and content delivery, cloud-based video service workflows is the way forward.

The new fluid workspace has to be constructed with the intention of enabling enterprise productivity with ease of access that fulfills next-gen workforce demands.

The decision of utilizing cloud, or a virtualized environment for video service workflows comes to the economics of content delivery. Ultimate indication of a next generation solution is the ability to offer an operational model, which reflects customers' specific requirements. To drive greater efficiencies and cost rationalization, service providers are migrating to a cloud based workflow.

The key is to make a transition to cloud infrastructure, simplify media operations and enhance media production and content delivery, to enable a more integrated offering.

- OpenStack-based cloud migration of Live TV and Video On Demand content processing pipeline
- Migrate video front tier applications such as search, discovery, authentication, authorization from hosted data centers to public cloud
- Migrate broadcast applications such as advance program guide, image services, content management, traffic and scheduling, policy management, subscription management from legacy data centers to public cloud
- Transition device platforms such as legacy set top box to next generation video services

Evolving user experience

New immersive innovations like, Augmented Reality, Virtual Reality, Voice Controls, Hyper Personalization continue to evolve and enhance the end user experience. Technologies like 360-degree virtual reality, which is a simulation of an augmented and altered environment that allows the user to look around in all directions and experience real life viewing, will revolutionize user experience.

Hyper Personalization, which is a new norm when it comes to customer engagement and profit-driven marketing, can be used to provide more personalized, predictive and targeted services and content. The hierarchy of personalized experience moves beyond user-specific customization, to behavior-driven tracking, to dynamically adaptive and targeted services. Predictive personalization can be used to augment current personalization offerings from MVPDs.

Another area to focus is moving away from account based or user based profiling to an adaptive profile that is capable of self-learning from user preferences, social behavior and user actions. Leveraging machine learning and predictive analytics to improvise profile map of subscribers will provide relevant and contextual personalized experience.

MVPDs in their journey of enabling next-generation video services and immersive user experience should include:

- Profile based entertainment activity tracking
- Voice intent-based use cases such as channel tune and universal search
- Integration with voice partners like Amazon, Google, Apple for personalized voice signatures
- Smart video recommendations powered by predictive and cognitive models leveraging big data led video insights
- Chat bots as an engagement tool for more immersive user experience
- Contextual, targeted and efficient customer monitoring systems for video deployment and infrastructure support

Imperatives for MVPDs

Content has become truly virtual, and is now consumed anytime, anywhere. As media, content and service providers evolve, they need to shift focus to experience led, data driven, open platform-based solutions to transform and provide next generation video services and immersive customer experiences. They need to have short term and long-term strategies in place to apply rapidly evolving technologies like machine learning, hyper automation, blockchain, IoT for next gen use cases. While content may be indispensable, the services itself are becoming an integral part of the user experience, with the opportunity to make them more accessible, attractive and engaging.

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