



# THE OTT MOVEMENT

The Impact of OTT on Content Distribution and Advertising



# 1 OTT – THE LANDSCAPE

---

The industry has seen steady growth of Over-The-Top (OTT) video solutions in the last few years. Predominantly, these solutions have offered a wide selection of on-demand video content. Live linear video content has not been largely available from OTT offerings – until recently. For many years, live video has been a closely held asset of the broadcast networks and pay TV operators, influenced by long-standing and lucrative retransmission and carriage agreements. However, the pay TV business model is changing as video delivery capabilities are being developed by broadcasters and others who are launching direct-to-consumer live video solutions. Analyst studies and press interviews document acceleration of this trend, causing decreased operator revenues from cord-cutters while placing growing bandwidth strain on operator broadband pipes.

The advances in mobile, broadband speed, and wireless technology have enabled the consumption of video content anytime, anywhere. To compete against companies like Netflix, Cable and Telco operators had to invest in their video network to retain customers. This led to developing TV Everywhere (TVE) technologies, Content Distribution Networks (CDNs), and IP Multicast Distribution networks.

## 1.1 TV EVERYWHERE

Over the last 10 years, TVE has had a significant impact on the network architecture of multichannel video programming distributors (MVPDs). The Tier 1 Multiple System Operators (MSOs) with a national footprint developed a national/regional fiber distribution network and abandoned distribution of linear content via HITS (Head-End in The Sky). To avoid duplication of traffic and maximize the number of reachable customers, TVE can be redistributed via 3<sup>rd</sup> party networks from a central location. To enable customers to view local channels, these local channels are backhauled to the central location via an IP multicast network. This means that Tier 1 MVPDs can carry large amounts of multicast traffic within their networks.

Moreover, operators have developed their offerings by allowing in and out of network content access to their customers. For instance, you can consume Comcast Xfinity content on any nationwide network.

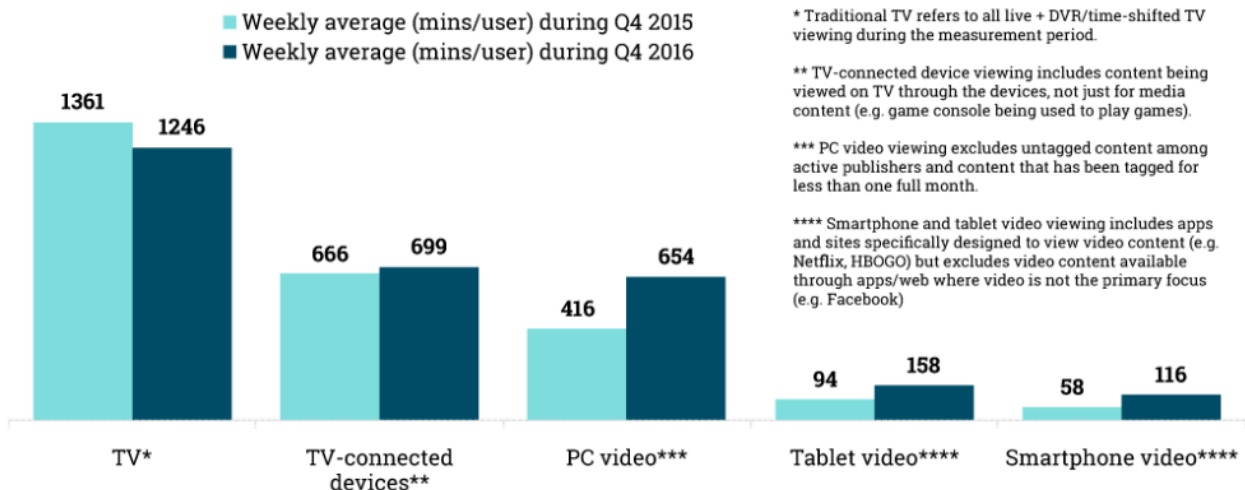
## 1.2 DIRECT-TO-CONSUMER AND LINEAR OTT INITIATIVES

Until recently, the focus has been mainly on Catch-up and Subscription Video On Demand (SVOD) initiatives but the landscape is changing. The following are representative Direct-To-Consumer (DTC) solutions:

- OTT major league live sports broadcasts: MLB (via MLB channel/app), NFL (via DTV), NBA (via ESPN and TNT).
- NBC pioneering the broadcast of live sporting events (2008, 2012, and 2016 Olympics).
- The Masters Tournament, US Open Tennis Championships, and other major sporting events.
- ESPN streaming live via its mobile apps.
- The Turner Group launching Watch TNT and CNNgo.

TV consumption is changing as millennials are now dominating the TV viewership market. Most spend time watching TV on mobile and connected devices as opposed to traditional TV sets. To compensate for the loss of video subscribers, Comcast (Stream TV), Charter/TWC (TWC TV), Verizon (Go90), and AT&T (DirecTV Now) have launched mini OTT video packages. The focus for Comcast and Charter/TWC is to re-capture video customers using broadband networks (hence the services not counting against their data cap) and AT&T and Verizon are extending their reach into mobile video distribution (the service does not count against the LTE data cap). It should be noted that mobile video content consumption is still mainly over Wi-Fi, though this may change as product offerings from Verizon and AT&T are developing and data caps reduce.

### Video Viewing Trends Among 18-34-Year-Olds, by Device in Q4 2016

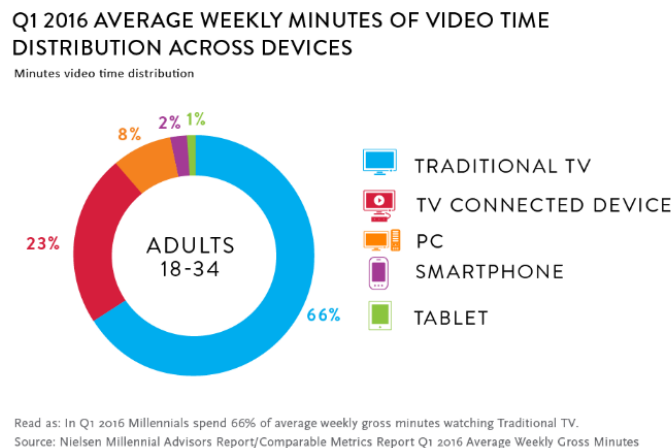


Published on MarketingCharts.com in July 2017 | Data Source: MarketingCharts.com analysis of Nielsen data

Weekly minutes per adult user, for an average week (9/26/16-12/25/16 vs. 9/28/15-12/27/15)

### 1.3 CONSUMPTION BY DEVICE AND MILLENNIAL VIEWER TRENDS

Millennials are consuming content on multiple devices and often at the same time (multitasking). Those watching TV will consume content via smartphones or tablets as an alternative to viewing ads. Facebook, Snapchat, and Instagram are heavily distracting millennial audiences during shows to the point where TV can become the secondary leisure activity or "background noise." This has created a significant challenge for operators as leisure time is trending away from big basic packages and toward streaming services. On the other hand, content creators are in a race to build an ecosystem across multiple devices and social media apps to drive branding at millennial endpoints. Network celebrities need to be showing up in multiple locations to drive brand recognition and stay top of mind for viewers. Ultimately, this will keep the audience engaged and bring them back to paid or advertised content. A strong example is Amy Schumer who has over 6 million followers on Instagram. Content she posts can lead viewers down a path to the Comedy Central YouTube channel (5 million subscribers) or the Comedy Central App. The chart below depicts Nielsen's weekly minutes of video time distribution across devices for millennials (though it should be noted that we believe Nielsen metrics are underrepresented in the smartphone category under its current data capture process).



### 1.4 OTT CONTENT DISTRIBUTION

Major content distributors (Amazon, Netflix, and Comcast) have shied away from the traditional CDN providers and are delivering content themselves, reducing outsourcing costs on one end but increasing operational costs to deploy and maintain their own CDNs. This has created an ecosystem where those major content distributors manage content from ingest to distribution to end customers. Comcast has now moved in direct competition with the traditional CDN providers and is proposing their solution to any content provider who would be interested in OTT services.

Other more traditional OTT content platforms are relying on external partners to distribute their content. For instance, DirecTV uses Akamai, Level-3, and Limelight to distribute content.

## 2 THE OTT MOVEMENT – LONG TERM IMPACT

### 2.1 NETWORK ARCHITECTURE TRENDS

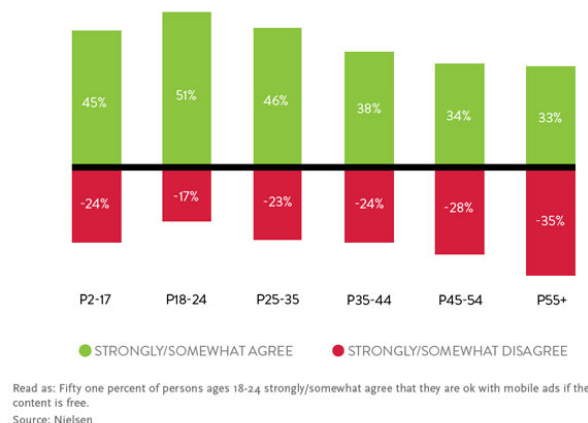
As video content distribution and IoT demand continue to grow, it is essential for MSOs and Internet Service Providers (ISPs) to be able to build an architecture that allows for constant traffic within their infrastructure and for Content Providers to improve the overall quality of experience for end users. The focus over the last 10 years has been to accommodate peak traffic capacity at the expense of total traverse time (this model was fitting for HTTP traffic which previously only required bandwidth for a short period of time). With the consumption of long form video, such a model is now crumbling with the necessity to carry a constant stream of data for long periods of time.

To cater for such an increase, operators need to increase the bandwidth in the last mile network (FTTP deployments, xDSL initiative, DOCSIS 3.1, ATSC 3.0, and 5G LTE) and bring content origination closer to the Edge.

### 2.2 APPLICATION EXPERIENCE TRENDS

As millennials continue to shift from traditional TV viewing to streaming devices such as Roku, Amazon Fire TV, Chromecast, and AppleTV, content creators will need to drive heavy performance and UI focus on apps hosted on those platforms. Consumers expect content apps to have flawless performance and any degradation will bounce viewers to an alternate platform. There is little forgiveness for poor performance as millennials have near limitless content alternatives. Mobile advertising is tolerated by millennials but should not significantly disrupt the app performance experience or be out of sync with the content. Ad insertion should not sacrifice the viewer experience; we have seen many cases where ads play without delivery of the user demanded content which, in turn, impacts app ratings, usage, and future downloads.

AD OPINION (MOBILE) "I'M OK WITH ADS IF CONTENT IS FREE"



## **2.3 CONTENT AGGREGATION VS. DEDICATED APPLICATIONS**

As demonstrated by Viacom removing Comedy Central content from Hulu, CBS refusing to be part of the DirecTV Now skinny bundle, or rumors of Apple negotiating content distribution deals, the battle for direct access to customers is raging on. Such moves illustrate the need for increased brand exposure but also hint that the traditional content distribution model is evolving.

The fact that enabling an application across multiple platforms has become standardized over the years is one of the contributing factors to this shift in the distribution model. In this shift, it's also important to note the impact of consumers (especially millennials) unwilling to pay a premium to watch a couple of select channels.

Last and foremost, consumers are demanding Quality of Experience and will not hesitate canceling a service if they cannot watch content uninterrupted or streaming error-free. One example that comes to mind is the streaming issues that Sling TV encountered when it launched its service and the lasting impact it had on its growth.

It is important that content creators establish a long-term strategy in developing their own mobile and Connected TV applications and architect a Content Origination and Distribution Network strategy that is independent of the big network and content aggregators.

## **2.4 LIVE CHANNELS, VR, 4K**

With the increase in bandwidth and improvements in Content Distribution Technology, it is now possible to distribute Live, 4K, and VR content over-the-top. As demonstrated by the success of the Super Bowl in February 2016 on CBS All Access, there is significant potential for revenue diversification and advertising up-sale. However, also demonstrated during this event were Quality of Experience challenges such as customers not being able to access the content, low resolution, or significant time lag (30 seconds).

The success of such initiatives will lie in the ability of content creators' to deploy and tear down content over the internet in an efficient manner and at a cost-effective point of view.

### 3 CONCLUSIONS

---

OTT will be the focus for the next decade as the television landscape continues to shift from traditional broadcast to a direct-to-consumer model. Consumer engagement and Quality of Experience will be the focus for the generations to come as the introduction of live/linear large-scale events, 4K, and VR content will continue to challenge network operators and content providers.

This network evolution, combined with the advent of Digital Ad Insertion capabilities (with initiatives such as SCTE 130 and IAB Vast), better consumer targeting technology via Machine Learning, and streaming technologies such as MPEG-DASH and HLS, presents a unique opportunity for advertising revenue increases. As technology shifts from CPE and player centric to a network approach, it will allow for interstitial advertising to be sold and delivered throughout the program without impact to the Quality of Experience to the end user.

The opportunity for content creators lies in the ability to make content available to more customers without having to negotiate distribution deals with MVPDs and traditional broadcasters. It is also an opportunity for them to assert their brand advantage directly with consumers.

This will require content creators to invest in content ingest, origination capabilities, and streaming application development. Such investments were in the millions of dollars in the past but cloud technologies, COTS hardware and software have opened new doors and possibilities in this regard. The cost to originate live content could be, if well designed, a lot cheaper than what we've been accustomed to.

Last and foremost, Quality of Experience from both a streaming and application point of view will play a significant role in the success of content creators in this new arena. Consumers are focusing more on quality than quantity as the latest trends have demonstrated. Millennials do not hesitate to change service if it does not meet their expectations.

pureIntegration is uniquely positioned to help content creators deploy such technologies as we have developed practices in the Content Media & Entertainment and Content Distribution verticals since our inception. pureIntegration enjoys a healthy relationship with Network Operators such as Comcast and Time Warner Communications/Charter but is also well positioned with key technology providers such as Cisco, Harmonic, Broadpeak, Arris, Ericsson, Technicolor, Imagine, and Edgeware.

**Contact Us to Learn More**

703-707-9680

[connect@pureintegration.com](mailto:connect@pureintegration.com)

<https://pureintegration.com>