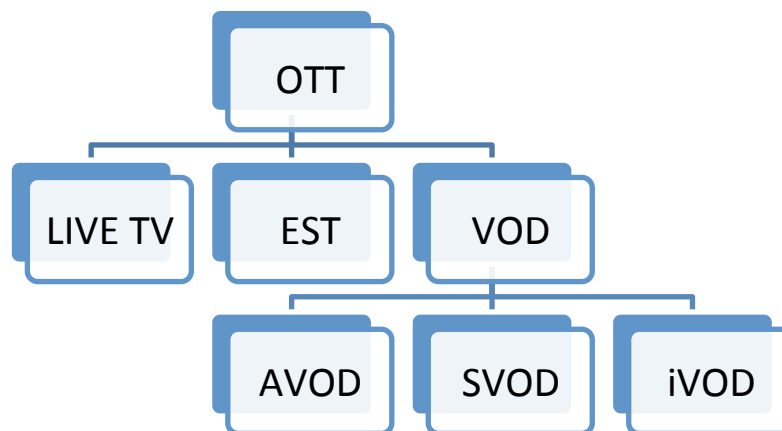


Defining Over-The-Top (OTT) Digital Distribution

This document presents an overview of over-the-top (OTT) distribution and how it fits into the Internet protocol TV (IPTV) and video-on-demand (VOD) markets. It explains the principles of OTT, considers the differences between OTT and IPTV, looks at the various business models in the OTT space, and provides detailed answers to the key questions being asked about OTT.

“Digital distribution” has become a general term referring to the delivery of entertainment content to the consumer through the internet as opposed to over-the-air broadcast, cable, telco, satellite, or disc-based delivery. The reality is that there are a variety of types and models of “digital distribution,” and that content delivered by traditional cable, telco, and satellite operators can also be defined as “digital.”

The goal of this document is to present a current hierarchy of the subset of digital distribution that is commonly referred to as over-the-top distribution and define the most common types of licenses and business models used by the biggest household-names.



OTT (Over-The-Top) refers to the delivery of audiovisual content streamed over the Internet without the involvement of an Internet service provider (ISP) in the control or distribution of the content. The ISP is neither responsible for, nor is able to control, the viewing abilities, copyrights, and/or other redistribution of the content, which arrives from a third party and is delivered to an end-user’s device. The ISP is only in the role of transporting IP packets. It's often referred to as "over-the-top" because

these services ride on top of the service you already get. OTT services don't require any business or technology affiliations with the entity that controls or maintains the infrastructure through which the content is delivered to end-users.

OTT includes the distribution of linear programming and non-linear video-on-demand (VOD) and electronic sell-through (EST) content. Smartphones, tablets, computers, gaming consoles, DVD/Blu-ray Disc players, televisions, and set-top boxes/devices (e.g., Apple TV, Fire TV, Google Chromecast, and Roku.) with internet connectivity are able to access content via the internet from companies and services like Amazon Video, CBS All Access, HBO Now, Hulu, Netflix, and Sling TV.)

Q: What are the OTT business models?

A: There are three primary business models for OTT—Live, EST, and VOD:

1. **LIVE TV:** A subscription-model service where content is streamed live to an internet-connected device for viewing by the end-user (see OTT device examples above). Some people believe IPTV is OTT, but IPTV operates in a closed system or a dedicated, managed network controlled by the local multichannel video programming distributor (MVPD): a cable, satellite, telephone, or fiber company like U-verse (AT&T). IPTV means **I**nternet **P**rotocol **T**V and refers to the technology being utilized in the content’s delivery, not the license or business model being employed. OTT TV differs from IPTV as it transmits streams using HTTP (Hypertext Transfer Protocol), the protocol which has been used for decades to transport web pages over the internet. The chart below explains the key differences between OTT and IPTV:

Comparison of IPTV vs. OTT:

| | IPTV | Over-The-Top (OTT) Technology |
|-----------------------------|--|---|
| Content Provider | Local MVPD (e.g., U-verse - AT&T) | Studio, TV Network (channel), or 3 rd party service |
| Transmission Network | Local telecom - dedicated owned or leased network | Public internet plus local telecom |
| Receiver | STB or DVR provided by telecom or purchased by consumer (e.g., TiVo) | Internet-connected device purchased by consumer (e.g., phone, tablet, computer, console, set-top-box, etc.) |

2. **EST (Electronic Sell-Through, Download-to-Own, or Digital “HD”):** Electronic sell-through is the model whereby a consumer purchases or perpetually licenses a digital reproduction. This licensed reproduction could be in the form of a file downloaded to the consumer’s internet-connected device or local hard drive, or via access to the content in a virtual storage locker or cloud-based service for streaming on demand to the end-user.

3. **VOD (Video-On-Demand):** Content not owned or perpetually licensed by the consumer that is either [streamed](#) or [downloaded](#) to an internet-connected device for viewing by the end-user at the end-user's discretion on an on-demand basis.

Q: What are the VOD business models? Does the consumer pay a subscription fee, pay by transaction, or view advertising instead of paying directly?

A: The short answer is all of the above:

1. **AVOD (Ad-Supported Video On Demand):** Ad-supported content made available on an on-demand basis for streaming to end users. Examples of AVOD include ABC Go, Crackle, Hulu, Popcornflix, and YouTube. Such services are primarily made available to the end user at no charge, though in some instances a 'freemium' or hybrid AVOD/SVOD model is employed where only a portion of the service's catalog is made available for free, with the rest behind a subscription pay wall.
2. **SVOD (Subscription Video On Demand):** For a fixed, recurring fee, subscribers may have unlimited streaming to a licensed catalog of content for the duration of their active subscription term. Subscription terms may be as short as one month (Hulu Plus, Netflix) or as long as one year (Amazon Prime).
3. **iVOD (Internet Video on Demand):** The temporary license (i.e., a rental) of a program for a limited and pre-determined viewing period (such as 24 or 48 hours) for on-demand viewing by an end-user. The program may be downloaded and stored locally on the end-user's device, or accessed online via streaming.

Q: Does the consumer have perpetual or temporary license for the video file?

A: For iVOD, the consumer has a temporary license to access, view, and/or store content. In the case of EST, the consumer pays for what is largely considered to be a perpetual license to store, view, and/or access a licensed reproduction. In both cases, and limited to the duration of the license, the consumer may have the option to: (a) store a copy of the file locally for playback on a compatible device; (b) access it online for streaming through an internet-connected device; or (c) both.

Q: What does the OTT business look like?

A: The OTT landscape is quite complex. The illustration that follows explains the flow of the OTT business starting with the OTT Video Retailers/Distributors (e.g., Hulu, Netflix, YouTube—not an all-inclusive list of OTT Video Retailers/Distributors).

OTT Illustration:

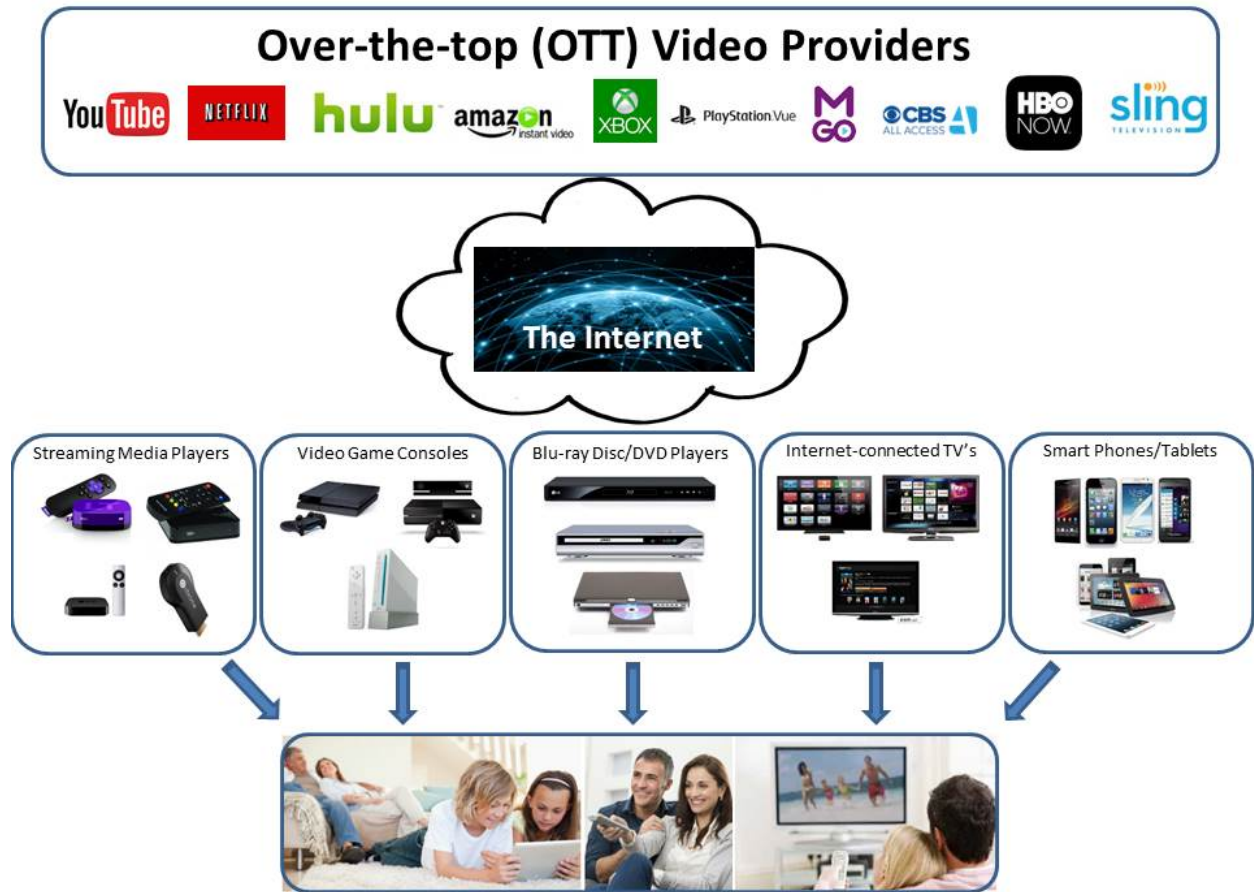


Image Source: Rentrak

Names and logos for Amazon Instant Video, CBS All Access, HBO Now, Hulu, Mgo, Netflix, PlayStation Vue, Sling TV, YouTube, and Xbox, are trademarked and are the property of the respective owners.

OTT Providers (including U.S. subscriber estimates, monthly fees, etc.)

| OTT Providers (examples)* | # of Subs (est.) | Price (Month) | Notes |
|-------------------------------|------------------|---------------|--|
| Netflix | 42,000,000 | \$11.99 | 60,000,000 Worldwide subs estimated. |
| Amazon Video | 27,000,000 | \$8.25 | Included w/Amazon Prime annual fee. \$8.99 mo. for new members effective 5/9/14. \$11.99/mo. for 4 HD screens. Base Hulu AVOD service is \$0.00. |
| Hulu Plus | 9,000,000 | \$7.99 | 10,000,000 Hulu Plus subs estimated by some analysts. |
| Showtime | 1,000,000 | \$10.99 | |
| HBO Now | 850,000 | \$14.99 | MoffettNathanson estimates 1.9M subs. |
| Sling TV (DISH) | 250,000 | \$20.00 | |
| Noggin (Nickelodeon) | 162,000 | \$5.99 | |
| CBS All Access | 100,000 | \$5.99 | |
| PlayStation Vue (Sony) | N/A | \$49.99 | À la carte options are also available. |
| NBC Universal | N/A | \$3.00 | |
| Apple | N/A | \$25.00 | Estimated price. Service to launch in 2016. |
| Warner Archive Instant | N/A | \$10.00 | |
| Sesame Street Go | N/A | \$4.00 | |
| Popcornflix | N/A | \$0.00 | Ad-Supported Movies and TV content. |

*Not an all-inclusive list. N/A – Not available

| OTT Sports (examples)* | # of Subs (est.) | Price (Month) | Notes |
|-----------------------------|------------------|---------------|---------------------------------------|
| NFL Now | N/A | \$1.99 | \$4.99 (outside of US, Mexico, UK) |
| NBA League Pass | N/A | \$200.00 | League Pass (fee) |
| MLB.TV | N/A | \$20.00 | Base fee. Premium options also exist. |
| MLS Live | N/A | \$15.99 | \$37.99 Season |
| NHL Game Center Live | N/A | \$4.95 | |
| WatchESPN | N/A | \$20.00 | |
| PGA Tour Live | N/A | \$4.99 | |
| WWE Network | N/A | \$10.00 | |

*Not an all-inclusive list. N/A – Not available

Note: Subscriber estimates and pricing as of June 2015

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Chris Roberts Chris has been at Rentrak for more than 25 years and strives to be on the cutting-edge of the constantly evolving entertainment industry in order to deliver Rentrak's clients the most innovative and useful products and services. Roberts helped create the industry's digital measurement service for movies and TV content in 2013, Rentrak's Digital Download Essentials Industry™. Used by all the major studios and networks, the service provides competitive EST and iVOD intelligence in an evolving digital landscape. Chris was listed as one of Home Media Magazine's "Digital Drivers" in 2014 and 2015. Chris also serves as a member of the EMA Digital Steering Council and is also on the board of directors of Our Family In Africa, an international non-profit organization providing support to orphans in the Democratic Republic of Congo.

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Honored as one of Home Media Magazine's "Digital Drivers" in 2014 and 2015, Muscarella has more than 13 years of digital, VOD, and home entertainment industry experience. After creating and leading Millennium Entertainment's (now ALCHEMY's) digital distribution efforts, Muscarella joined Rentrak in 2012, working with major studios and indies to help grow Rentrak's Digital and VOD measurement services.



Glossary of Keywords and Acronyms:

- OTT – Over-The-Top
- iVOD – Internet Video-On-Demand
- EST – Electronic Sell-Through
- DTO – Download To Own
- VOD – Video-On-Demand
- AVOD – Ad-Supported Video-On-Demand
- SVOD – Subscription Video-On-Demand
- HD – High Definition
- IPTV – Internet Protocol Television
- HTTP - Hypertext Transfer Protocol
- MVPD – Multichannel Video Programming Distributor
- STB – Set-Top-Box
- DVR – Digital Video Recorder
- ISP – Internet Service Provider

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