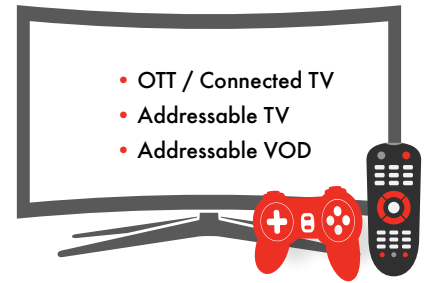


ADVANCED TV

Advanced TV is an umbrella term that refers to television content that evolves beyond traditional, linear TV delivery models. Advanced TV targeting enables advertisers to serve one ad to one household as opposed to broadcasting the same ad to all households. Advanced TV includes OTT (Over the Top)/Connected TV, Addressable TV, and Addressable VOD (Video on Demand).



OTT / CONNECTED TV

OTT leverages “apps” to stream video content to a television via an internet connection. Viewing methods include:

- On-demand – where viewers select and watch content whenever they wish
- Linear/live – where viewers watch at a particular time, channel or app (live content is streamed in real time as the event happens)

OTT/CONNECTED TV DEFINED

- OTT/Connected TV: Content transported from a video provider to a connected device over the internet outside the closed networks of telecom and cable providers
- It offers the power of digital advertising combined with an engaging, big screen user experience

GROWTH OF OTT

- 51 million OTT households and 56% of consumers’ TVs are IP-connected (Source: comScore and IAB)
- As of 2018, OTT ad spending is estimated to be \$2.2B, up 40% vs 2017 (Source: Magna Global Advertising Forecast, Spring 2018)

OTT CUSTOMER JOURNEY

1

Viewers stream TV content from the internet using either a smart TV, OTT device/dongle, connected game console or IP set top box that receives signals from the digital video ad server



2



All major networks are making their content available either through their own app or via a virtual MVPD (Multichannel Video Programming Distributor) aggregator like Hulu or Sling TV

3

Content is streamed and plays instantly in full-screen, full HD or 4K, and can be ad supported if the publisher chooses



How Viewers Are Watching OTT

<p>Dynamic</p>	<p>OTT Devices</p>	<p>Gaming Devices</p>
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What Viewers Are Watching

<p>OTT Video Services</p>	<p>Authenticated Apps</p>	<p>Unbundled Apps</p>
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View others at iab.com/advanced-tv

TARGETING AND SERVING ADS IN OTT / CONNECTED TV

- OTT offers Dynamic Ad Insertion (DAI) delivered in-stream via VAST ad tag delivery, in a full screen, largely viewable experience. DAI enables OTT advertisers to easily change ad creative in linear, live, and video on demand content.
- Since OTT content is delivered over the internet to connected TVs with persistent IP addresses, advertisers can target and serve ads to specific households/subscribers with similar precision as digital video, resulting in greater relevance and ROI.
- Addressability can be enabled via individual app and device-level data (i.e. Roku Ad ID) as well as IP/device combination. *Use of automation (programmatic) exists largely in private marketplace (PMP) environments.*
- Cookies are of limited use in OTT, though advertisers can leverage third-party data (ex: Acxiom, Neustar and Nielsen Catalina) to enrich audience targets. Advertiser CRM data may also be matched with platform registration and other data for targeting.
- Common targeting parameters include: device, demographics, time of day / day of week, content and category, location, etc. Advanced targeting can include purchase behavior (available through the use of first and third-party data)

BEST PRACTICES FOR ADVERTISERS

- Leverage frequency capping where possible from specific publishers or platforms
- Advertisers should seek a data onboarder with expertise in mapping from targeting segment to ad/device identifier and/or IP address.
- Use high quality mezzanine file assets (which results in more consistency between content and commercials)
- Demand transparent, third-party measurement which can include impressions, completion rates, engagement rates, demo guarantees via Nielsen/comScore, and ad effectiveness studies

ADDRESSABLE TV

- Addressable TV allows advertisers to purchase audiences as opposed to traditional methods of buying based on programming.
- Ability to serve different ad content to different audience segments watching the same TV program on IPTV and set top boxes, based on specific audience targeting in either live, playback or VOD mode.
- **Addressable VOD:** Subset of addressable TV where the ad is inserted into cable programs within the VOD content, accessible through a cable provider set top box.

- There are approximately 64 million addressable households across the household level targeting TV providers (see chart to right).
- Addressable TV ad spend is expected to grow to \$3.37 billion in 2020 (eMarketer, 7/18).
- Typical targeting verticals include Entertainment (driving tune-in), Autos, CPG, Insurance, Retail, Finance, Pharmaceutical, Political

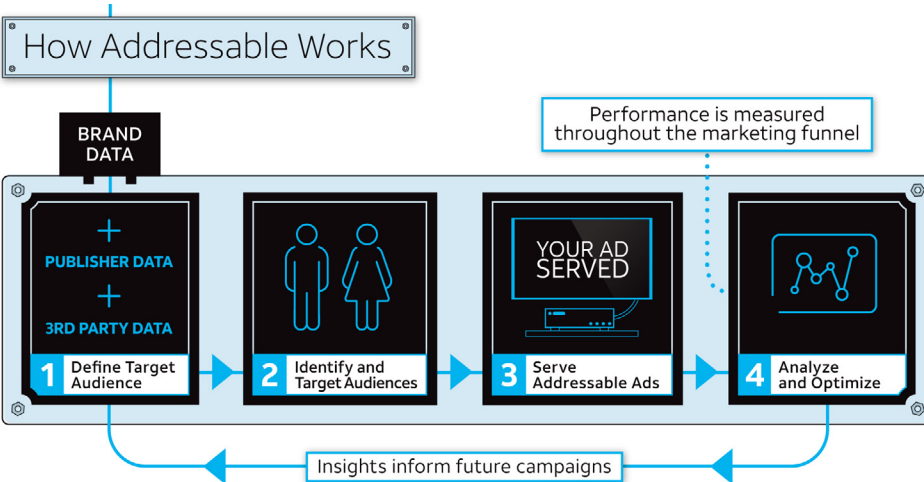
ADDRESSABLE HOMES

TELEVISION PROVIDER	LIVE / LINEAR	VOD
COMCAST	12 MM**	19.5 MM
DIRECTV	15.6+MM	N/A
Spectrum	N/A	10MM
dish MEDIA SALES	9 MM***	N/A
fios	4.6 MM	N/A
COX *	N/A	3MM
attice	2.3 MM	N/A

Ranked by total size of addressable homes

Source: TV providers shared updated stats as of Nov 2018;

Comcast Live/Linear homes are a subset of Comcast VOD homes *DISH includes Sling TV



Source: AT&T AdWorks

TARGETING AND SERVING ADS IN ADDRESSABLE TV

- Addressable Linear TV does not widely support dynamic ad delivery, though specific ads can be sent to specific (addressable) households for granular audience targeting.
- Addressable TV leverages subscriber registration data as well as set-top box technologies to apply specific audience segments.
- Targeting options include household demographic data as well as first and third party data combined with a content distributor’s subscriber data in an anonymized match.
- Audience segments can be based on nearly any household-based segment (ex: viewing and buying behavior, purchase intent).

BENEFITS OF ADDRESSABLE TV TARGETING

- Allows for more granular audience segmentation and targeting, leading to less waste as campaigns are more efficient
- Closes the loop on sales attribution as the set top box offers deterministic linkage to exposure data and sales data

BEST PRACTICES FOR ADVERTISERS

- Identify objectives for the campaign upfront and ensure creative supports the campaign strategy and KPIs
- Ensure that media exposure and frequency are properly measured and optimized through the campaign across verticals
- Utilize third-party vendors to enhance targeting efforts, gain audience insights, and enable more precise target definitions. For example, utilize online/offline purchase data from companies like Acxiom, Experian, and Neustar as well as TV viewership data from companies like comScore/Rentrak and Nielsen, and third-party consumer data from companies like Lotame and Oracle.
- Go beyond traditional reporting with extensive backend measurement
- Utilize a control versus exposed methodology to determine the success of a campaign, as it allows advertisers to isolate the impact of their addressable ad exposure. From there, advertisers can refine and augment their addressable strategy and their overall media strategy.
- While automated buying and selling (programmatic) is still nascent in Addressable TV, there are technologies (mostly in private marketplace environments) that allow advertisers to find specific audiences, regardless of device/time/place and serve ads to those specific households.