1. Phone and cable companies are increasing their investment and technological capability to track, capture and analyze all of their customers data across platforms— Internet, mobile and TV. They openly discuss how by having access to more screens including mobile and TV (both cable and streaming) they are in a better position to target consumers on behalf of advertisers.

Examples of what leading companies say their cross device delivery capabilities are.

Comcast: <u>https://www.comcastplatformservices.com/industries/agencies-and-advertisers</u>; http://www.comcastspotlight.com/

Verizon: http://advertising.aol.com/blog/insights-effective-cross-device-targeting;

AT&T: <u>http://adworks.att.com/crossscreen.html;</u>

2. Recent and pending acquisitions are designed to further cross device data gathering and targeting footprint.

Verizon/AOL: <u>http://adage.com/article/datadriven-marketing/verizon-aol-pair-data-core/298607/</u>

Verizon/Yahoo: <u>http://adage.com/article/datadriven-marketing/verizon-aol-pair-data-core/298607/</u>

AT&T/DirecTV: <u>http://www.mediapost.com/publications/article/270443/att-adworks-launches-video-programmatic-platform.html</u>

AT&T/Invidi: http://about.att.com/story/att\_dish\_wpp\_to\_acquire\_invidi.html

AT&T/TimeWarner:

http://www.mediapost.com/publications/article/288484/atttime-warner-mergeropportunities-and-potenti.html

Comcast/NBC: <u>http://corporate.comcast.com/news-information/news-feed/nbcuniversal-amplifies-integrated-advertising</u>

Comcast/Visible World: https://adexchanger.com/digital-tv/in-buying-visibleworld-comcast-exerts-more-influence-on-the-demand-side/

3. ISPs have expanded their investment in "Big Data" practices, including for targeted advertising.

Comcast: <u>http://www.lightreading.com/cable/set-top-boxes/comcast-digs-deeper-into-big-data-/d/d-id/729358</u>; <u>https://www.datameer.com/company/datameer-blog/comcast-turns-big-data-smart-data-part-1/</u>;

https://mapr.com/company/news/comcast-develops-advanced-advertisingplatform-handle-real-time-big-data/

Verizon: <u>http://adage.com/article/datadriven-marketing/key-verizon-data-aol-advertisers/303186/;</u> <u>http://www.ibmbigdatahub.com/tag/2186;</u> http://www.kyvosinsights.com/webinar-webcast-how-verizon-is-solving-big-data-problems-with-interactive-bi/

AT&T: <u>http://www.mobilemarketer.com/cms/news/carrier-networks/23093.html;</u> http://jobs.climber.com/jobs/Marketing-Advertising/Atlanta-GA-30301/Big-Data-Client-Service-Principal/74668685

4. ISPs using their ability to identify us by location for ad targeting.

Verizon: http://www.theverge.com/2016/3/30/11330812/verizon-sharecustomer-location-data-with-aol-advertising; https://support.mmedia.com/hc/enus/articles/204610694-Advertising-Video-Tutorials; https://learn.onemobile.aol.com/hc/en-us/sections/200880704-Monetize; http://www.adweek.com/digital/aol-inks-mobile-data-deal-to-power-morelocation-based-ads/

AT&T: http://www.adweekaudiencetargetingguide.com/#attadworks ; http://about.att.com/story/data\_patterns\_gives\_advertisers\_new\_insights.html

5. ISPs have acquired or expanded their real-time data targeting capabilities—called programmatic.

Verizon: <u>http://advertising.aol.com/tags/programmatic;</u> http://www.videa.tv/2016/08/verizon-acquisition-of-yahoo-gives-telco-aprogrammatic-trifecta/

AT&T: <u>https://adexchanger.com/digital-tv/att-opens-private-marketplace-powered-videology-beat-black-box-tv-planning/;</u> http://about.att.com/story/att\_dish\_wpp\_to\_acquire\_invidi.html

Comcast: https://www.ampower.me/article/Mobile-Advertising/Comcast-Strengthens-Programmatic-Video-with-StickyAds-Purchase-11-268885?page=20; https://www.comcasttechnologysolutions.com/blog/outlook-programmaticadvertising; https://www.comcasttechnologysolutions.com/blog/outlookprogrammatic-advertising; http://www.recode.net/2014/3/1/11624088/comcastto-acquire-video-ad-platform-freewheel

6. ISPs position themselves to reap digital ad revenues.

AT&T: AT&T wants more digital advertising. 8/15/16. <u>http://adage.com/article/cmo-strategy/t-chose-omnicom/305446/</u>

**Verizon:** <u>https://www.digitalcommerce360.com/2016/06/24/verizon-turns-digital-advertising/</u>

Comcast: http://corporate.comcast.com/news-information/news-feed/comcast-partnersto-scale-digital-advertising-for-20-million-broadband-subscribers; https://adexchanger.com/investment/comcast-eyes-advanced-ad-targeting-q4-bringsvideo-cable-subscription-growth/

7. ISPs expand OTT ad capabilities (streaming, "over-the-top):

Comcast: <u>http://www.multichannel.com/news/distribution/ces-2017-comcast-unit-boots-direct-consumer-ott-service-content-players/409976</u>; https://www.comcasttechnologysolutions.com/news

AT&T: http://www.telecompetitor.com/att-ott-service-directv-now-to-launch-with-100-channels-original-content-for-35month/; https://www.ipglab.com/2016/11/29/att-plans-personalized-dynamic-ads-fordirectv-now/

**Verizon:** https://www.verizondigitalmedia.com/platform/translate/; https://www.verizondigitalmedia.com/solutions/broadcast-ott-solution/

8. ISPs expanding personalized targeting

Verizon: <u>https://www.verizondigitalmedia.com/blog/2017/03/the-future-of-ott/;</u> https://www.verizondigitalmedia.com/blog/2017/01/deliver-personalizedexperiences-with-smartplay-by-verizon/

**Comcast:** <u>http://corporate.comcast.com/news-information/news-feed/xfinity-tvs-next-generation-x1-platform-the-future-of-tv;</u>

http://www.bizjournals.com/philadelphia/news/2017/01/03/comcast-acquires-watchwith-metadata-x1-search.html

AT&T: <u>https://www.ipglab.com/2016/11/29/att-plans-personalized-dynamic-ads-for-directv-now/;</u>

https://www.nytimes.com/2016/10/27/business/media/targeted-advertisingtime-warner-merger.html?\_r=0

9. ISPs working with big data brokers, data marketing clouds that have extensive information to target consumers by race, finances, health, etc

AT&T: <u>https://www.acxiom.com/partners/att-adworks/;</u> http://about.att.com/mediakit/adworks Comcast: <u>https://www.acxiom.com/partners/comcast-media-360/;</u> https://www.oracle.com/marketingcloud/customers/success-stories/comcast.html

Verizon: https://www.oracle.com/marketingcloud/customers/successstories/verizon.html; https://liveramp.com/partner/aol/ (axciom)