



sparkninetely

Connected TV advertising market dynamics

Report for Ofcom

November 2020



A hand holding a black remote control in front of a blurred television screen. The remote has several buttons, including a power button, a directional pad, and a back button. The background shows a television screen with a colorful, abstract pattern.

Contents

1. Introduction
2. Market size and growth
3. Value chain
4. Market dynamics

Ofcom commissioned Spark Ninety to conduct a targeted project exploring the connected TV (CTV) value chain, technology and market dynamics

Introduction

- Spark Ninety are advisors to the media and technology sectors, providing growth and market entry strategy, research, organisational development and due diligence services. Our clients include major media owners, technology providers, publishers, government, regulators and investors.
- Ofcom commissioned Spark Ninety to conduct a targeted project exploring the CTV value chain, technology and market dynamics in the UK - with the main objectives of:
 - Providing a high-level overview of the UK CTV advertising market
 - Highlighting key market dynamics relating to global technology companies, but not limited to big tech
 - Laying the ground for future Ofcom work on CTV advertising by identifying areas for further exploration
- The project involved a review of information from public and proprietary sources, and interviews with senior managers at the following stakeholders. Interviews were conducted off-the-record and the quotes included in this report are anonymised.
 - Broadcasters: ITV, Channel 4, Sky Media
 - Ad tech: FreeWheel, SpotX, Smart Adserver, The Trade Desk
 - Platforms: Roku, a major global platform
 - Agencies: GroupM, Finecast
- The project was small scale, involving 2 weeks of work. Consequently, the findings set out in this report provide a top-level overview of a highly complex market. The research was conducted in October and November 2020

DISCLAIMER. This report has been produced by Spark Ninety Limited, a limited company registered in England and Wales with registered number 11248585, in accordance with an engagement agreement for professional services with Ofcom. This report contains information about the connected TV advertising market based on sources believed to be reliable. The information is not advice and should not be treated as such. To the fullest extent permitted by law, Spark Ninety Limited and its employees do not accept or assume any responsibility or liability in respect of this report, or decisions based on it, to any reader of the report. Should such readers choose to rely on this report, then they do so at their own risk. Any views or opinions expressed in this report are those of Spark Ninety and may not reflect Ofcom's views.



Contents

1. Introduction

2. Market size and growth

3. Value chain

4. Market dynamics

An increasing proportion of the UK population has an internet connected TV set at home. There is a range of CTV devices

Connected TV penetration and categorisation

- 63% of people surveyed for Ofcom's Technology Tracker in Q1 2020 had an internet-connected TV set at home ⁽¹⁾
- There are four main categories of connected TV device: smart TV sets, standalone streaming devices, connected games consoles, and internet-connected operator set-top boxes
- These categories overlap - a household may have more than one device connecting a TV set to the internet, or use different devices on different TV sets
- The device landscape is relatively fragmented, in Q1 2020:
 - 41% had an internet connected games console ⁽¹⁾
 - 11% had a streaming stick ⁽¹⁾
 - Data for other categories is not available
- Connected TV adoption is forecast to grow over the next few years, from 40.9 million users in 2020 to 44.4 million users in 2025 ⁽²⁾

Categories of connected TV device ⁽³⁾

Smart TV sets

- Samsung
- LG
- Panasonic
- HiSense

Streaming devices

- Amazon Fire TV
- Roku
- AppleTV
- Google Chromecast
- GoogleTV

Games consoles

- Playstation
- Xbox
- Nintendo

Operator set-top boxes

- Sky
- Virgin
- NOWTV

Sources: (1) Ofcom technology tracker, 2020. Fieldwork conducted from 9th January to 7th March 2020. (2) <https://www.emarketer.com/content/uk-digital-video-2020>

Notes: (3) These categories are not mutually exclusive.

CTV devices enable three main categories of addressable advertising on TV screens

Taxonomy of addressable advertising on TV screens

Category	1 CTV advertising	2 Addressable ads on broadcast TV	3 Ads on CTV device user interfaces
Service	<ul style="list-style-type: none"> Video sharing platforms (VSPs) Broadcaster VOD Other AVOD 	Broadcast TV channels	CTV device user interfaces
Ad formats	<ul style="list-style-type: none"> Video Display (overlays) 	<ul style="list-style-type: none"> Video 	<ul style="list-style-type: none"> Display, video Search ⁽⁴⁾
Description	<ul style="list-style-type: none"> Generally defined as advertising served in an internet-delivered video service viewed on a TV set ⁽¹⁾ 	<ul style="list-style-type: none"> Addressable ads that replace broadcast ads, with ad insertion enabled by a CTV device 	<ul style="list-style-type: none"> Emerging category of ads placed in device user interfaces, such as home screen, EPG, or search results
Examples	<ul style="list-style-type: none"> YouTube video and display ads ⁽²⁾ ITV Hub All 4 My5 (2) PlutoTV RokuTV 	<ul style="list-style-type: none"> SkyAdSmart dynamic ad replacement (DAR) on broadcast TV - enabled by Sky or Virgin set-top boxes ⁽³⁾ Potentially, in the future, DAR on other CTV devices such as smart TV sets 	<ul style="list-style-type: none"> Samsung First Screen Ads ⁽⁵⁾ served on the smart TV home screen prior to a VOD app initiating LG Home Launcher Ads ⁽⁶⁾ - static banner ads on LG Smart TV home screen, which can click to video, a browser or an app

Notes: (1) Simplification of IAB UK and IAB Europe definitions. (2) Excluding VSP and BVOD services viewed on mobile or desktop devices. (3) AdSmart use a proprietary system of ad delivery - in some cases, addressable ads may be distributed via broadcast in advance of ad insertion. Excludes AdSmart on OTT services. (4) User interface advertising is an area of innovation and new ad formats are likely to emerge over the next few years. (5) <https://www.samsung.com/us/business/samsungads/resources/first-screen-ad/> (6) <https://www.tremorvideo.com/creative/ad-specs/home-launcher/>

From a media trading perspective, CTV advertising is not a well-defined market - it overlaps both the TV and digital trading environments

Main characteristics of TV and digital video advertising trading

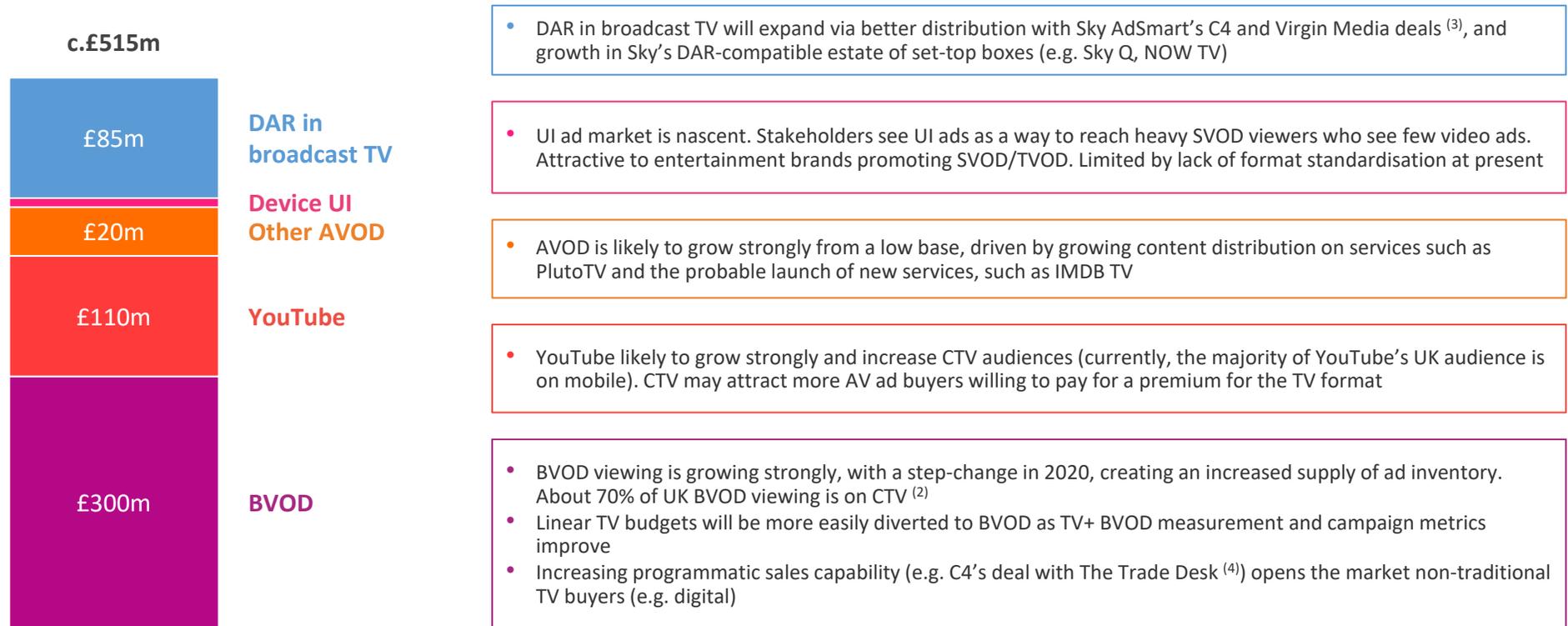
	TV trading arena			Digital trading arena			
Buyers	<ul style="list-style-type: none"> TV buyers in media agencies Very few other buyers 			<ul style="list-style-type: none"> AV buyers in media agencies Long tail of SME buyers 			
Trading and metrics	<ul style="list-style-type: none"> 'Share of broadcast' deals TV parameters e.g. 'XX% in peak' c.12 TV trading audiences Cost per thousand impacts (CPTs) TV impacts + impressions BARB-measured Publicly reported 			<p>Connected TV ad 'market'</p>			
Processes	<ul style="list-style-type: none"> Partially elective schedules Linear TV 1st...plus BVOD TV audited separately 					<ul style="list-style-type: none"> Volume spend agency deals Digital trading parameters Data-based audiences Cost per mille (CPMs) Sold impressions Vendor measured Privately reported Programmatic trading 	
Media	Broadcast TV	DAR in broadcast TV	OTT video (BVOD, YouTube)			Outstream video	Digital display

- The interaction of agencies (buy side) and media companies (sell side) creates traded markets. Agencies compete for, and retain, advertisers by buying well versus pricing norms. TV and digital are usually bought separately, by different teams. The emergence of CTV is disrupting existing models, and its status is in contention: is it TV, or digital, or a new media sector?

Notes: (1) Trading of ad inventory in the CTV user interface (not shown) is likely to form part of the digital trading environment.

UK expenditure on addressable ads seen on TV screens was about £515m in 2019, concentrated on BVOD and YouTube, and is likely to grow strongly

Estimated UK market for addressable advertising on TV screens, 2019 - Indicative



Source: (1) 2019 expenditure estimates based on Spark Ninety analysis of public sources (e.g. CMA) crossed checked with industry participants. 2024 forecasts are highly indicative estimates based on observations made by industry stakeholders. (2) Thinkbox.tv (3) Sky AdSmart's Virgin Media deal was announced in March 2019; 4Sales deal in September 2019. The former is active, the latter isn't yet (4) 4Sales.com 20th July 2020.

In the long term, CTV advertising is likely to account for the majority of broadcaster ad revenue - and support a range of new services

Long-term growth prospects for CTV advertising

CTV advertising market drivers

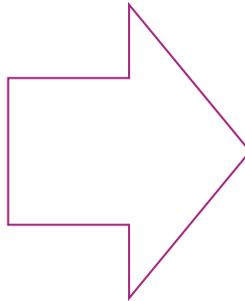
Ad budgets following audiences to CTV services

Media owners focusing on growing CTV audiences and ad inventories

Growing demand for data-driven targeting

Expansion of the market of CTV buyers to include digital buyers / SME advertisers

Confluence of innovation, investment, land-grab, opportunities and FOMO



Long-term outlook

By 2024, we estimate that approximately 20% to 30% of broadcaster ad revenue will be CTV advertising or DAR on broadcast TV - all delivered on CTV platforms

In the longer term, most broadcaster advertising will be addressable ads enabled by CTV platforms

In consequence, CTV ad revenues will be critical to the health of the commercial PSBs

CTV advertising may also provide revenues for various new entrant AVOD services, such as publisher apps

CTV advertising is increasingly traded programmatically, part of a migration to automated data-driven trading of video advertising across platforms

CTV advertising sales methods

	Direct	Proprietary buying platform	Programmatic guaranteed	Programmatic biddable
YouTube		✓	✓ (1)	✓ (1)
Broadcasters	✓	✓ (2)	✓ (3)	
Other AVOD	✓		✓	✓

= main sales methods at present

Notes: (1) Limited to DV360. (2) Only ITV's Planet V at present. (3) Limited programmatic integrations available at present.

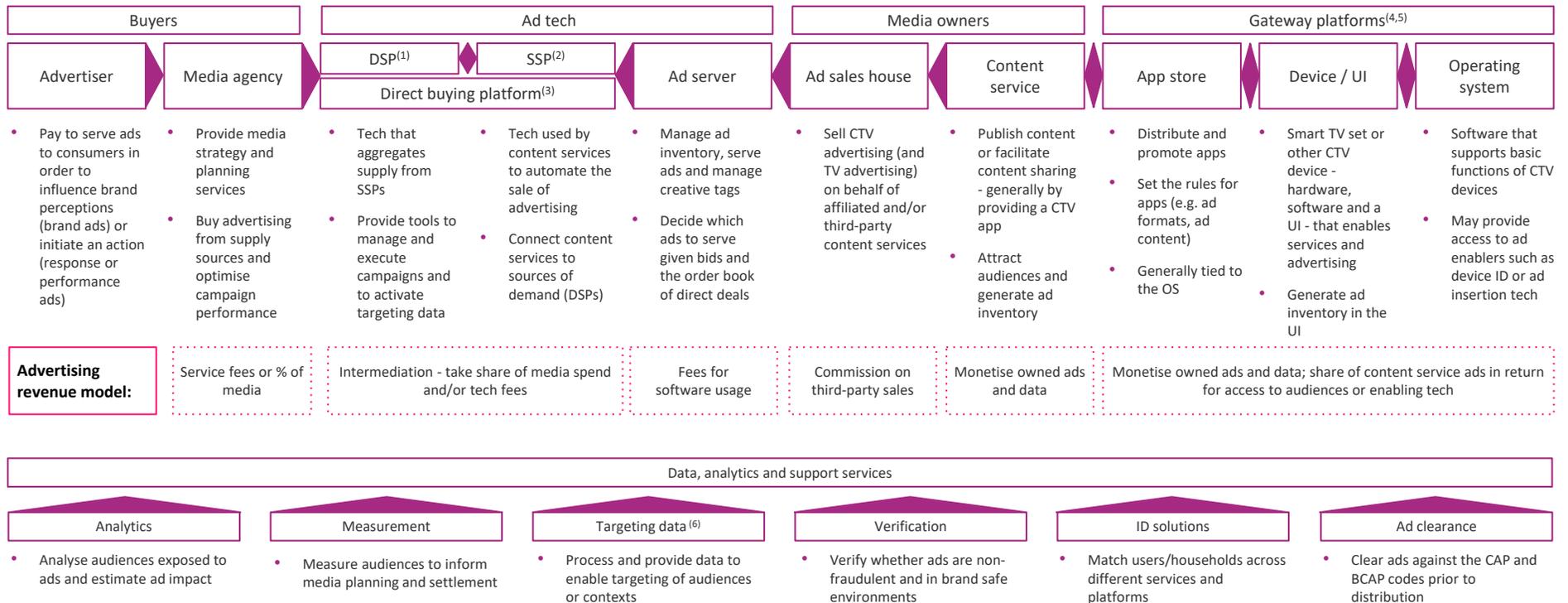


Contents

1. Introduction
2. Market size and growth
- 3. Value chain**
4. Market dynamics

The CTV advertising value chain is relatively complex, involving media owners, buyers, ad tech and gateway platforms

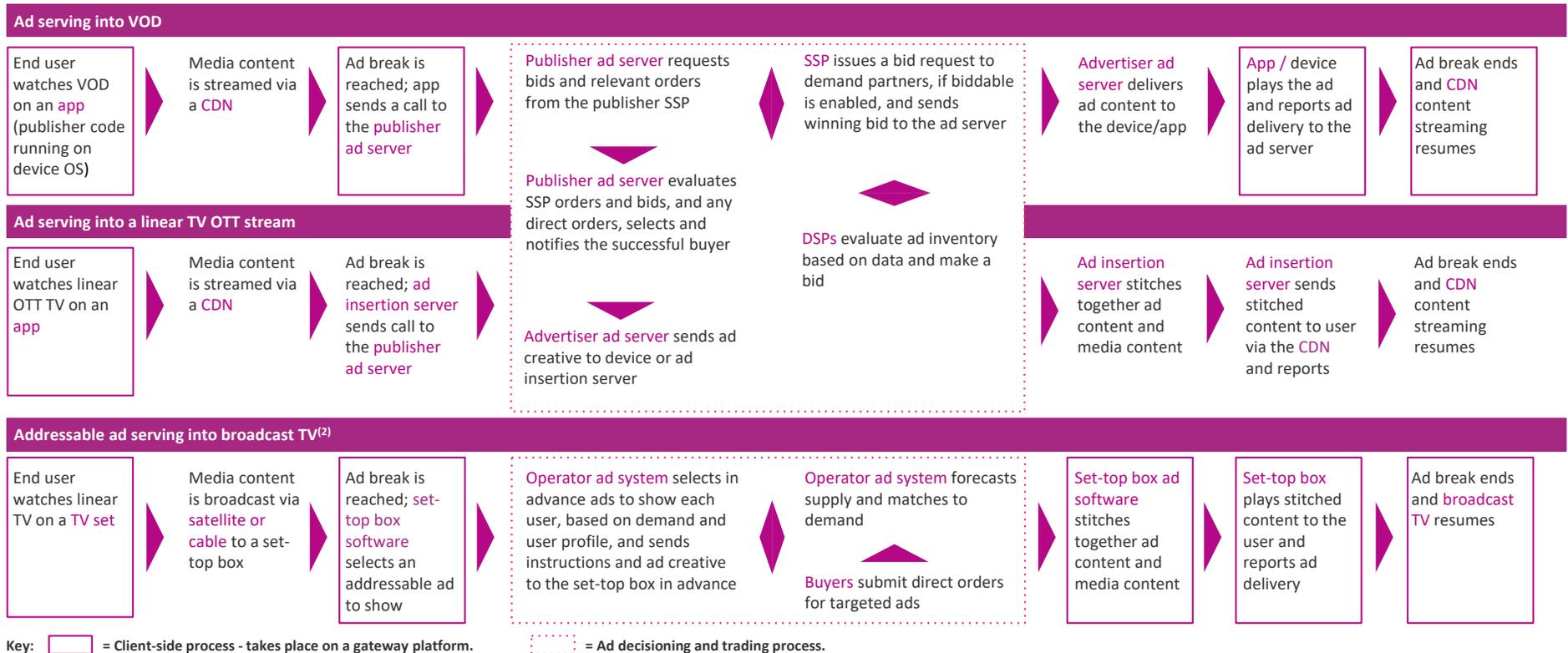
CTV advertising value chain - simplified



Notes: (1) DSP = demand-side platform. (2) SSP = supply-side platform. (3) DSPs and SSPs enable programmatic trading. In many cases, CTV ad inventory is sold direct (involving manual orders) or on a direct buying platform. (4) This segmentation of gateway roles is an evolution of the taxonomy proposed by Mediatique (consumer product, OS, UI) - Mediatique, Connected TV gateways: review of market dynamics, August 2020. (5) Closely related and overlapping roles. App stores are generally tied to an OS. Device UI may be controlled, to some extent, by the OS provider. (6) Ad targeting may be done using advertiser or publisher first party data and/or third-party data. Data processing may be enabled by a data management platform (DMP) or other solutions, either standalone or integrated with other ad tech services, such as a DSPs.

In terms of tech, CTV ad serving involves client (gateway platform) and server based technologies - and ad serving models differ between services

CTV ad serving and trading (simplified) in three different ad-serving models



Sources: (1) Spark Ninety analysis based on Pixelate (Server-Side Ad Insertion (SSAI): The hidden driver of ad fraud in Connected TV/OTT) and discussions with industry stakeholders

Notes: (2) Generalised ad serving model. Alternative approaches may be used depending on set-top box capabilities. In the future, smart TV sets could be used to perform ad replacement in the UK.

Gateway platforms control or host certain enabling technologies, with control points over ad-tech within apps

CTV advertising technology - Key characteristics

App-based ecosystem ⁽¹⁾

Apps

- Content services are apps written for a specific OS (analogous to mobile), with ad tech vendor code integrated into apps
- There is no cookie equivalent to track users across services

Ad tech standards established in some areas, but limited in other areas

Video ad serving tech

- Video advertising uses standards, such as VAST (video ad serving template)⁽¹⁾, an IAB⁽²⁾ standard for video ad tags
- IAB RTB (real-time bidding) standards cover programmatic trading of video ad inventory, as well as other ad formats

Broadcast TV ad tech

- Broadcasters require ad tech to accommodate specific UK requirements, such as Clearcast clock numbers (denote that ads have been cleared) and management of ad placements to comply with UK regulations
- Insertion of ads into linear OTT TV streams requires dynamic ad insertion (DAI) technology

Gateway platforms control certain enabling technologies

Apps

- Content service apps run on gateway platform OSs, providing platforms with control over app access to computing resources
- Gateway platform app stores set or agree terms for content service apps, including terms relating to advertising and ad tech. They generally review and certify apps before distribution

ACR

- Some smart TVs use automated content recognition (ACR) technology to collect “glass level” viewing data that may be used in advertising
- ACR matches the audio and/or video of content viewed on a smart TV screen to a library of content signatures - identifying the programmes and ads viewed on broadcast TV and VOD

Access to device IDs

- Each device/OS has its own IDs which may be used for advertising
- Gateway platforms control whether or not these IDs are provided for use in advertising and under what terms

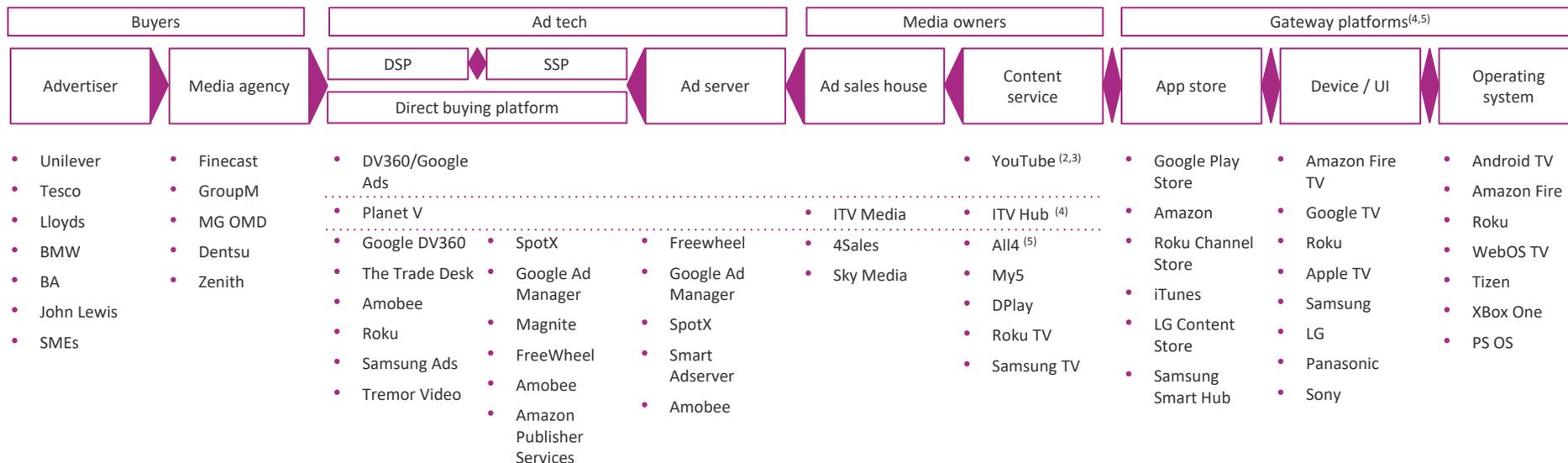
DAR in broadcast TV

- Replacement of broadcast TV ads with addressable ads requires dynamic ad replacement (DAR) technology that operates on the CTV device
- In the UK, Sky AdSmart inserts ads on operator set-top boxes. Alternative technologies are emerging that insert ads on smart TV sets, such as project OAR - a consortium of US stakeholders ⁽³⁾

Notes: (1) <https://www.iab.com/guidelines/vast/> (2) Internet Advertising Bureau, an industry body. (3) <https://projectoar.org/>

Ownership of key ad inventory, data and enabling technology is generally split across different market participants

CTV advertising market participants - Examples ⁽¹⁾



Main assets

Enabling technology | Data

Ad inventory at scale | Data

Enabling tech | Distribution | Data | UI ads

Market concentration

Moderate

High

Low

- FreeWheel and SpotX are widely adopted by broadcasters internationally. Google is less widely used in CTV than the comparable internet display advertising intermediation market.

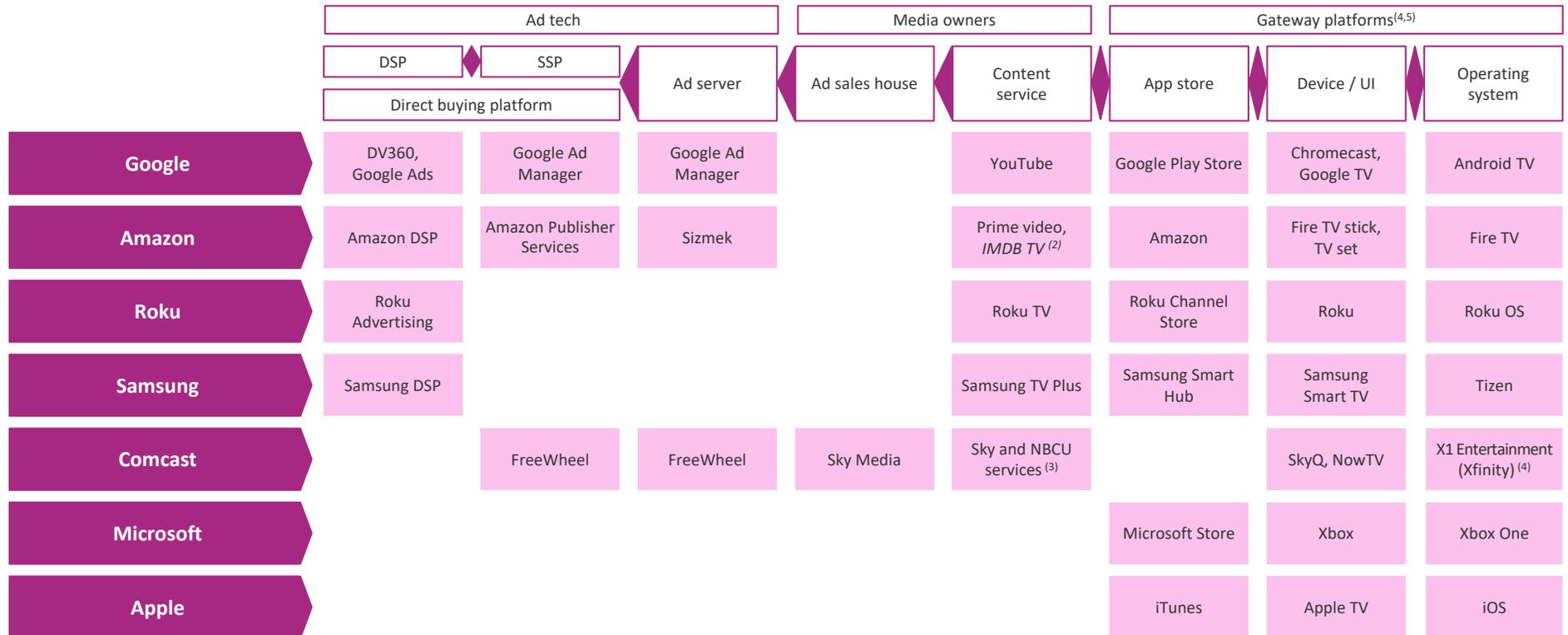
- Ownership of CTV ad inventory is currently concentrated amongst a small number of major broadcasters and YouTube.

- FreeWheel and SpotX are widely adopted by broadcasters internationally. Google is less widely used in CTV than the comparable internet display advertising intermediation market.

Notes: (1) This list is not exhaustive. (2) Google owned and operated buying platforms (DV360, Google Ads) provide access to YouTube ad inventory with the exception of advertising on YouTube that is sold directly by content owners under “carve out” agreements. (3) YouTube supports third-party content creators/media owners that receive a revenue share on advertising on their content sold by YouTube. (4) ITV Hub is available exclusively via direct sales and Planet V, a buying platform developed by ITV using technology licensed from Amobee. (5) Other UK broadcasters generally contract with one of a range of ad servers and SSPs.

Some global technology companies operate at multiple levels of the CTV advertising value chain, owning gateway platforms, media and ad tech

Global technology company CTV advertising operations ⁽¹⁾



Notes: (1) In most cases, there is not exclusive vertical integration between the component parts of global technology companies' operations. For example, Roku Advertising buys ad inventory on Roku TV and third-party SSPs. (2) IMDB TV is not yet available in the UK, but in October 2020 it was [reported](#) that Amazon was recruiting for a project lead, indicating that a UK launch is planned. (3) NBCU's streaming service Peacock is not yet available in the UK. (4) The X1 OS is used on Comcast Xfinity set-top boxes in the US. It is not used on devices available in the UK at present. (5) Google, Amazon and Microsoft also operate in various adjacent markets such as cloud computing. (6) Various other technology companies operate more narrowly across the CTV advertising value chain, such as ad tech vendors - The Trade Desk (DSP), SpotX (SSP, ad server), Amobee (DSP, SSP, ad server) - and TV set manufacturers (device/UI).

There are four main global tech companies that operate CTV gateway platforms and have a clear ambition to grow their CTV ad businesses

Global technology company CTV advertising activities

Google

- Google has a large and diversified advertising business. In CTV advertising, YouTube has a strong market position, reportedly generating \$15bn in global revenue in 2019 from advertising ⁽¹⁾ of which CTV is a part. Google also provides comprehensive ad tech, including a DSP, SSP and ad server, but Google ad server and SSP adoption rates are lower among major broadcasters than publishers in the display advertising market, with FreeWheel ad server used by some major broadcasters ⁽²⁾.
- At the gateway platforms layer, many smart TVs use Android TV, and this OS is used by Google TV. Google is well positioned to build out from this footprint.

Amazon

- Although growing rapidly and forecast to reach \$10bn in 2020 ⁽³⁾, advertising revenues represent only a small fraction of total Amazon turnover at present
- Amazon's OTT ad inventory is growing through its Fire TV platform (recently extending into the auto space), its Amazon Publisher Services (APS) network, live sporting events on Prime Video and the ad-supported streaming video channel IMDb TV. This inventory and Amazon's ability to power attribution and measurement should enable it to differentiate its offering and gain traction. Some interviewees expect Amazon to be one of the leading forces in CTV advertising
- Amazon also has access to demand from Amazon Marketplace sellers, who may value the integration of a sales and advertising platform, as well as major brands that it can reach via its buying platform and SSP.

Roku

- Advertising is one of two main pillars of the Roku platforms business, the other part being subscriptions. Roku also generates revenues from selling boxes and OEM OS, though this activity essentially drives the main platforms business.
- Roku has stated its intention to become the preferred choice of advertisers in the connected TV landscape. "Our goal is to help advertisers and content partners invest for a world where all TV is streamed," said Scott Rosenberg, senior VP and GM of Roku's platform business. "OneView provides the data and scale across the entire TV landscape so marketers can plan, buy and measure TV advertising and ultimately shift spend to streaming more quickly."⁽⁴⁾

Samsung

- Samsung has been actively scaling up its advertising business over the last year, using data as a differentiator - Samsung is reportedly pitching itself to advertisers as having access to a large source of data and insights from its connected TVs on what and how audiences are watching - using this data for targeting
- CTV ads are part of a longer-term vision to monetise data from across the Samsung device ecosystem. "Samsung sells everything, from TVs to smartphones to washing machines. Samsung Ads is the start of an infrastructure they're building that will allow them to sell ads across several connected devices in the home."⁽⁵⁾

Microsoft

- Microsoft, Apple and Sony are established at the gateway platform level of the CTV ad value chain, with their respective assets including Microsoft Xbox, a possible Xbox streaming stick, and the search engine Bing; Apple TV, iTunes and iOS; Sony Playstation and Smart TVs.

Apple

- However, they do not yet operate CTV ad businesses at scale and have not yet demonstrated a strong interest in growing a connected TV ad business. However, this position could change - for example M&A of an independent player such as Roku could allow them to rapidly establish themselves in the CTV ad market, acquiring ad inventory and ad tech.

Sony

Other TV set manufacturers

- Most other TV set manufacturers participate mainly as sellers of UI ads (e.g. LG) or sellers of data to aggregators. They are not yet building out ad tech or services. The exception is Vizio which operates a CTV ad business in the US, but has not developed a footprint in the UK.

Sources: (1) [Google](#) reported YouTube revenues for the first time in 2020. (2) Interviewees noted that FreeWheel is the most widely adopted ad server among major broadcasters, though Google Ad Manager has been adopted by various players, such as DAZN. (3) [Forbes - Is Amazon about to takeover online advertising?](#). (4) [NextTV - Roku unveils Advanced Ad Platform](#). (5) [Business Telegraph - Inside Samsung's connected TV ads push in Europe](#).



Contents

1. Introduction
2. Market size and growth
3. Value chain
- 4. Market dynamics**

There are several CTV advertising market dynamics involving gateway platforms and their competition and cooperation with media owners

Summary of CTV advertising market dynamics

Competition and cooperation between media owners, who control CTV ad inventory at scale, and gateway platforms who provide tech and data to enable advanced advertising, own growing ad inventory, and wish to grow their ad businesses

-  1. Gateway platforms, and some media owners, operating vertically integrated **walled gardens** or partial walled gardens to control monetisation of their ad inventory and data
-  2. Gateway platforms **setting or negotiating terms** with media owners that involve platforms taking a share of ad inventory and/or mandating use of their ad tech
-  3. Gateway platforms using **data** collected on CTV devices and across their wider operations to support their CTV ad businesses
-  4. Gateway platforms, especially Google and Amazon, developing **synergies** between their CTV ad businesses and their operations in other areas
-  5. Gateway platforms limiting use of CTV **device IDs** for advertising to protect user privacy
-  6. Gateway platforms leveraging CTV device **technology to enable addressable advertising** in broadcast TV in return for a revenue share

The CTV ad market is structured around propositions that combine ad inventory, data and, in some cases, a proprietary buying platform

Main CTV advertising propositions in the UK

1. Walled gardens



Media owner	CTV ad inventory	Proprietary data ⁽¹⁾	Proprietary buying platform(s)
Google	 YouTube ⁽²⁾	Data from multiple Google services e.g. search	Google Ads; DV360
ITV	 ITV Hub	User registration data; viewing data	Platform V
Channel 4	 All4	User registration data; viewing data	-
Sky Media	 Sky	User registration data; viewing data	-
Samsung	 Samsung TV	User data; smart TV usage and viewing data	Samsung DSP
Amazon	 Prime Video	User data; device usage and viewing data; shopper data	Amazon DSP
Roku	 Roku TV	User data; device usage and viewing data	Roku Advertising
Others	 Various apps	Varies by service	-

Walled gardens - Ad inventory and targeting segments are available only through proprietary self-serve buying platforms and/or direct sales

Open broadcaster/platform propositions - Ad inventory and targeting segments are available through direct sales and selected third-party DSP integrations. Certain custom data services (e.g. advertiser first-party data activation) may be limited to direct sales.

Gateway platform partial walled gardens - Ad inventory is available via direct sales, buying platforms and selected DSP integrations, but proprietary data segments are exclusive to direct sales/buying platforms.

Open programmatic market - Long-tail ad inventory available via various DSPs

Indicative volume of ad inventory:  = low,  = high.

Sources: Interviews with industry stakeholders. Trade media.

Notes: (1) In some cases, competitors overlay non-exclusive third-party data sources to create targeting segments and/or allow advertisers to activate their first-party data. (2) Refers to YouTube-sold inventory. In some cases, media owners that distribute content on YouTube have negotiated the right to sell their own inventory, with YouTube backfilling.

In some cases, gateway platforms and broadcasters operate walled gardens - creating multiple data silos



- YouTube operates a “walled garden” business model in which YouTube ad inventory and Google targeting segments are available only on Google owned and operated buying platforms (DV360 and GoogleAds) ⁽¹⁾
- Roku, Amazon and Samsung have emulated this approach, building or acquiring DSPs that have access to their inventory and data. They also supply ad inventory to certain third-party DSPs, though some interviewees expect platforms to limit this practice in the future in order to strengthen their own DSPs
- ITV has also developed a walled garden - Planet V ⁽²⁾, a self-service buying and data management platform based on technology licensed from Amobee. Planet V will become the exclusive way to buy ITV Hub ad inventory. It offers a range of targeting options including segments based on ITV first-party data augmented with Experian data, and the ability to match advertiser first-party data. ITV has invited other broadcasters to use the platform ⁽³⁾
- The benefits of a walled garden approach include limiting disintermediation by third-party ad tech vendors, preventing data leakage, and limiting exposure to risk in the open programmatic advertising ecosystem, such as ad fraud and discrepancies. However, walled gardens limit access to certain demand sources, such as DSPs like DV360 and The Trade Desk that may reach advertisers who do not have a direct relationship with a walled garden, such as DTC brands. Interviewees were divided over whether this factor will stimulate walled gardens to open up to third-party DSPs in the future

“Media owners don't want to release their data directly to the buy side due to data leakage. So a lot of media owners [internationally] are buying a DSP, or building a DSP. And then they say, my data is only available through my DSP.”

“There'll be a tipping point where the money being commanded by the advertisers and the agencies will demand that more platforms [DSPs] are involved for access, which ultimately is going to be better for everyone.”

“Vizio [in the US] is building a very strong advertising marketplace, a closed environment with some open doors to integrate with other monetization platforms. They really want to own the space and the data To a certain extent Samsung seems to be adopting a similar path. Roku is also a very controlled environment.”

Sources: (1) CMA (2) <https://www.planet-v.co.uk> (3) <https://www.v-net.tv/2020/10/05/planet-v-goes-live-at-itv-combining-progressive-ad-tech-with-full-broadcaster-sovereignty/>

Gateway platforms have the ability to set terms and conditions for CTV app ad monetisation, ad tech, ad content and user tracking



- App stores or platforms generally set standard terms and conditions for apps they distribute, covering ad monetisation, ad tech partners, ad content, ad IDs and tracking
- In many cases, major broadcasters have been able to negotiate variations from the standard ad terms - as part of wider distribution deals involving agreement on prominence and other factors
- Some platform terms and conditions help to ensure a good user experience by prohibiting excessive, intrusive or inappropriate advertising and protecting user privacy
- Other terms and conditions relate to commercial arrangements between gateway platforms and content services, such as the right to sell ad inventory and to choose third-party ad tech vendors

Aspect	Examples of standard terms and conditions
Ad monetisation	<ul style="list-style-type: none"> • The Roku Distribution Agreement requires that channels send 30% of ad inventory to Roku for which Roku keeps 100% of revenue, or that Roku sells 100% of inventory with a 60% revenue share to the publisher ⁽¹⁾
Ad tech partners	<ul style="list-style-type: none"> • Amazon Fire TV Ad-Enabled Apps must disclose, upon Amazon's request, which third-party ad networks they use and within six months of Amazon's request, Fire TV Ad-Enabled Apps must remove all third-party ad network monetization software and may only access third-party ad networks through Amazon Publisher Services (Amazon's own SSP) ⁽²⁾
Ad content	<ul style="list-style-type: none"> • LG In-App Advertising Content Guidelines forbid unacceptable ad content, including a range of categories such as adult content, gambling, lotteries, and 'competitor product promotion ads that is defined by LG internal policy' ⁽³⁾
Ad IDs / tracking	<ul style="list-style-type: none"> • Amazon's Advertising ID Policy states that 'If you collect information about a user's behavior to display interest-based ads, or to generate analytics, you must use the Advertising ID; no other identifier or tracking method may be used. Users can reset the Advertising ID or opt out of interest-based ads altogether.' ⁽⁴⁾

Sources: (1) [Roku Developers - Advertisements, Roku Distribution Agreement](#) (2) <https://developer.amazon.com/docs/policy-center/fire-tv-advertising.html> Third-party ad networks might include SSPs, DSPs and ad exchanges, though the term is not defined in the Amazon Fire TV Policies document. (3) Part of LG Smart TV Seller terms and conditions <http://seller.lgappstv.com/seller/footer/terms.lge?lang=en> - accessed 6 November 2020. (4) The Advertising ID is a user-resettable, unique identifier that helps protect the privacy of the user. <https://developer.amazon.com/docs/policy-center/advertising-id.html>

Amazon and Roku request a share of third-party CTV app ad inventory to sell - a practice which is established in the US market



- In the US, gateway platforms such as Amazon and Roku commonly take a share of the ad inventory of services distributed on their platforms. They sell this inventory enhanced with proprietary data
- Even major studio groups share inventory or revenue. In September 2020, NBCU agreed to a revenue share with Roku as part of a distribution agreement for Peacock, its streaming service ⁽¹⁾
- This inventory sharing practice has developed in the US due to:
 - A precedent of broadcasters providing MVPDs (cable operators) with avails (a certain number of minutes of advertising per hour) to sell - third-party aggregation of TV ad inventory is accepted
 - Roku and Amazon Fire having a relatively high market penetration (according to interviewees)
- The UK market does not have a system of avails and Roku and Amazon have relatively low market penetration at present
- In the UK, Roku default terms require apps to provide 30% of their ad inventory to Roku. Amazon may also ask for 30% of inventory
- However, according to industry interviewees, major UK broadcasters have not agreed to share inventory under current negotiated distribution agreements with gateway platforms

Gateway	Standard monetisation terms
Roku	<ul style="list-style-type: none"> • "Inventory Split" model, whereby the channel sets up its own ad server and must send 30% of inventory to Roku. Roku retains 100% of revenue from this inventory • Also option of Roku Sales Representation Program - Roku sells 100% of inventory with a 60% revenue share to the publisher ⁽²⁾
Amazon Fire TV	<ul style="list-style-type: none"> • Under Amazon's Inventory Optimization Policy, Fire TV Ad- Enabled Apps must provide 30% of total advertising impressions in the app to Amazon • Apps will not receive payment for the 30% of impressions provided to Amazon • Apps directed at children under 13 and apps located outside the US or with <50,000 monthly viewing hours, and who have not been contacted directly for inventory by Amazon, are exempt • Amazon reserves the right to enforce the Inventory Optimization Policy for all Fire TV Ad-Enabled Apps, at a later date, at its sole discretion ⁽³⁾
Google Play Store	<ul style="list-style-type: none"> • Google Play policies do not require apps to share ad inventory with Google ⁽⁴⁾

Sources: (1) <https://www.bloomberg.com/news/articles/2020-09-18/nbc-threatens-to-black-out-apps-on-roku-in-dispute-over-peacock> (2) [Roku Developers - Advertisements, Roku Distribution Agreement](#) (3) <https://developer.amazon.com/docs/policy-center/fire-tv-advertising.html> (4) https://support.google.com/googleplay/android-developer/answer/9857753?hl=en&ref_topic=9857752

UK broadcasters have resisted sharing ad inventory with gateway platforms, but some stakeholders expect this situation to evolve



Current situation: UK broadcasters generally do not share ad inventory with gateway platforms

- Major UK broadcasters have generally pushed back on gateway platform requests to take a share of CTV ad inventory and/or to mandate use of certain ad tech
- This position is supported by current power dynamics: the three main broadcast sales houses (ITV Media, 4Sales, Sky Media) control a large share of CTV ad inventory, while CTV gateway platforms are relatively fragmented at present

Potential future trend: Platforms leverage increased scale to gain the right to sell third-party ad inventory

- Broadcaster agreements with gateway platforms are relatively short term - frequent renewal negotiations provide opportunities for gateway platforms to change the terms of these agreements
- As certain gateway platforms increase market penetration, their bargaining power will grow
- There is also a risk that gateway platforms will mandate certain terms globally, regardless of local UK market dynamics

“They are the hard negotiating points... it's not the most conventional approach for platforms that more often than not want to take over the ad sales piece. But broadcasters have a very strong position in the UK.”

“When a Roku or an Amazon comes in and wants to do some kind of advertising share deal, I think broadcasters' natural reaction is 'why would we do that? We have 100% control of our inventory and understand control of our yield and our data, why would we ever give that up?’”

“There will be a reckoning about the extent to which the very biggest broadcasters start to change the terms that they work with for streaming platforms.”

“It's a slippery slope, to start relinquishing control to big tech platforms that start off with, I don't know, a 20% share of your inventory. That suddenly puts a noose around your neck where that share can then be increased as reliance on a platform grows.”

Gateway platforms collect data on CTV devices and services, and on any services they operate in adjacent markets

Examples of data collected by selected gateway platforms

3. Data leverage



	Google	Amazon	Roku	Samsung
CTV devices and services	<ul style="list-style-type: none"> On YouTube, activity, ad, device, and location On Chromecast, usage data On Android TV - Google does not publish specific privacy policy for Android TV. The CMA found that Android collects data on mobile devices ⁽⁵⁾ 	<ul style="list-style-type: none"> User information (e.g. name, age, contact details) On Fire TV and Fire TV Edition (smart TV), device usage, such as navigation of the home screen, and open, close and duration of use of third-party apps On Fire TV Edition devices, use of live broadcast TV content ⁽¹⁾ 	<ul style="list-style-type: none"> User information (e.g. name, age, contact details) Device information, IP address User activity on Roku Channels and Roku Direct Publisher Channels On Roku Smart TV sets, content and ad viewing across live TV and other services (enabled by ACR) and TV guide usage ⁽²⁾ 	<ul style="list-style-type: none"> User information (e.g. name, age, contact details) Collected information (e.g. IP address, location) ⁽³⁾ On opted in smart TV sets, household-level content and ad viewing across TV channels and programmes, commercials, device usage, set-top boxes and gaming consoles - using ACR ⁽⁴⁾
Other devices and services	<ul style="list-style-type: none"> Data from >53 consumer-facing services and products in the UK, including user information (e.g. name, age), user activity (e.g. search history, Google Pay transactions), location data when using Google services Data from mobile devices running Android Data collected from third parties (e.g. ad data) ⁽⁵⁾ 	<ul style="list-style-type: none"> User information (e.g. name, address, age, payment information) User shopping activity (e.g. search history, orders, User media activity (e.g. downloading, streaming, viewing) Interactions with Alexa voice assistant ⁽⁶⁾ 		<ul style="list-style-type: none"> Information is collected on mobiles, tablets, home appliances and online services, including: <ul style="list-style-type: none"> ○ User information ○ Device information ○ Location information ○ Use of services such as apps and websites ○ Voice information in the case of voice control ⁽⁶⁾

Sources: (1) <https://www.amazon.co.uk/gp/help/customer/display.html?nodeId=GQFYXZHZB2H629WN> (2) <https://docs.roku.com/published/userprivacypolicy/en/gb> (3) Mediatique, Connected TV gateways: review of market dynamics, August 2020. (4) <https://www.samsung.com/uk/business/samsungads/> (5) CMA digital markets Appendix F: The role of data in digital advertising. (6) <https://www.amazon.co.uk/gp/help/customer/display.html?nodeId=GSXETHUPY4UM7CRD> (7) <https://www.samsung.com/uk/info/privacy/>.

Notes: This list of data is not comprehensive.

Gateway platforms use proprietary data to strengthen their CTV advertising propositions, though these offers are fragmented in the UK



ACR data

- ACR data provides gateway platforms with household ad exposure data, enabling targeting options such as:
 - Reach extension - advertisers target CTV ads at households that have not already seen their ads on broadcast TV
 - Tactical retargeting - advertisers target ads at households who have been exposed to competitor ads⁽¹⁾
- These options may appeal to TV advertisers, though stakeholders noted that ACR data/targeting is fragmented by platform, not independently audited, and may be limited by low opt-in rates and incomplete ACR ad content libraries

Amazon and Google data

- Amazon and Google data enables highly granular behavioural targeting based on verified first-party data
- These granular targeting options are attractive to response advertisers and brand advertisers who want to target narrow audiences. In many cases, these brands currently focus on digital advertising and are new to advertising on TV screens
- Other CTV ad providers also offer a degree of granular targeting, supplementing their first-party data with third-party data, and offering advertiser first-party data matching (e.g. Planet V offers over 400 targeting options)

“Individually, these platforms offer some really interesting datasets. The challenge is, obviously, that they don't scale across the system.”

“ACR data can be quite useful to target light, medium, heavy TV viewers or heavy SVOD viewers. That's interesting... But the whole space is very poorly audited and verified... That area has a long way to go and certainly we haven't seen it really gain traction with clients for that reason.”

“Part of this market is after exactly the type of data that the likes of Amazon and Google have got in spades. That said, the majority of the appetite right now is for standard measures of reach frequency, incremental reach.”

“The sort of data that Amazon, for example, knows about a subscriber: where they live, probably their age, gender, what they spend every month on shopping. I'd put that in the highly valuable bucket, because it's obviously verified information, it's extremely accurate, it's got a billing relationship. For an advertiser that's about as good as it gets in terms of quality of data.”

Notes: (1) We did not see evidence that gateway platforms are currently offering this targeting capability, but ACR data could in theory support it.

There are complementarities between Google and Amazon CTV advertising businesses and their other areas of activity



CTV advertising

Devices
Services
Ad tech

- **Data** - Google and Amazon collect data across multiple services and devices, with valuable data categories including shopping behaviour and search history. They use this data to generate targeting segments (e.g. auto intenders) which can be activated in CTV media buys. The platforms can also use CTV data, such as service usage or ACR, to add to their overall view of user behaviour.
- **Analytics and attribution** - Google and Amazon have established analytics and attribution models used in desktop and mobile environments, where desired actions such as product purchases generally occur. They can link these models to CTV ad exposure data, allowing CTV advertisers to determine ad impact and effectiveness.
- **Demand** - Google and Amazon have substantial customer bases, including global agencies and a long tail of SME advertisers that they can cross-sell CTV advertising, though CTV is generally packaged with other forms of OTT video advertising.
- **Logins** - Google and Amazon operate logins on most services, enabling them to track users across services.

Other LOBs

Desktop
Mobile
Shopping
Ad tech
Voice

“Google have verticalized all parts of the communications process. From mass reach, not simultaneous, through retargeting and customized messaging, through personalisation by narrow attribution-based mechanisms - all powered by a single view of the consumer because the Google ID operates pretty much universally... That is massively advantageous in the advertising market, but they still struggle to penetrate the TV community, on account of the nature of the content and the way in which it is sold”

“We would expect to see a chunk of performance advertisers - Google's core market in digital platforms and digital video, like YouTube - moving to the big screen... Data exists to make the impact far more measurable than it ever has been before. And actually lots of that measurement still runs through Google's platforms, Google systems, Google's attribution models.”

Source: (1) CMA digital markets Appendix F: The role of data in digital advertising.

Gateway platforms may limit access to or use of device IDs for advertising, which may create challenges monetising long-tail CTV content



- Device IDs are persistent identifiers generated by a particular CTV device and may be used in advertising to identify a user across content services running on the same device, enabling practices such as audience tracking and targeting, and frequency capping.
- Each CTV OS has its own system of IDs, such as IDFA (Apple), RIDA (Roku), Amazon Advertising ID, Google Play Advertising ID.
- Access to device IDs for advertising differs and could be limited by gateway platforms. Apple plans to make access to IDFA, its identifier, opt-in only on iOS14⁽¹⁾. Amazon and Roku allow use of their IDs for advertising, with restrictions.
- Interviewees generally believe that potential restriction of access to device IDs will not be a problem for major broadcasters that use logins as identifiers. Smaller-scale media owners that sell advertising programmatically are more likely to be affected due to aggregation in the programmatic ad ecosystem. However, ID is a highly complex field and vendors such as LiveRamp⁽²⁾ and ID5⁽³⁾ are developing solutions that may work in the absence of device ID.

“Whether these platforms will let the content provider access a user identity or not, is a very big issue... the recent change in Apple policy, around IDFA... There are already providers who are not sharing any device ID with third parties, though they probably still leverage it for their own advertising business. And this can create a huge distortion in the market.”

“Identity is less of a problem for content owners with scale. If you're big enough and you have logged in data and managed to collect consent, then you'll still be good to go. But there is no doubt that a significant part of the consumption will go to the long tail of smaller content providers.”

“In the UK, loss of device IDs would be minimally disruptive, just because a lot of those identifiers have already been stripped out by the broadcasters with the advent of GDPR. IP addresses and persistent device IDs have been removed by pretty much every major broadcaster. So in a way the CTV marketplace is already primed for a world that doesn't have a lot of identifiers.”

Source: (1) <https://www.adexchanger.com/mobile/apples-policy-is-clear-email-is-not-gonna-take-the-place-of-idfa/>. (2) <https://lp.liveramp.com/meet-liveramp-identitylink.html> (3) <https://id5.io/solutions/>

Dynamic ad replacement (DAR) in broadcast TV requires use of gateway platform technology - for which platforms may negotiate a revenue share



- Replacement of broadcast TV advertising with addressable advertising requires the use of technology on a CTV device (this differs from ad replacement on linear OTT streams which is done on servers).
- In the UK at present, proprietary Sky AdSmart technology enables DAR on certain broadcast TV channels on enabled Sky and Virgin set-top boxes. The gateway platforms, in this case Sky and Virgin, receive a share of DAR revenue.
- In the US, new models of dynamic ad insertion are emerging in which broadcast TV ads are replaced on smart-TV sets. Project OAR⁽¹⁾ is a consortium of industry participants, including smart TV manufacturer Vizio, that is developing a standard for dynamic ad insertion on smart TV sets.
- In the future, there is the potential for an increasing range of smart TV gatekeeper platforms to enable DAR on their devices. They would need to reach agreement with broadcasters and other value chain participants over terms such as revenue share.

“In the context of dynamic ad insertion, the operator or the platform, is playing the DSP role a little bit. And they're playing it particularly well at the moment. The value proposition that they can bring is enriching your inventory with data segments - such as Sky Adsmart. Being distributed on our platform not only gives you more reach, it brings you enhanced media value. Ultimately, then it becomes a revenue conversation, rather than a revenue share conversation.”

“The hybrid environment [linear broadcast TV + connected TV devices] allows us to bring addressability to linear live TV, not waiting for users go to OTT. You just need to have a connected TV in the middle. And this is what really developed this year. There are a couple of initiatives: project OAR, the consortium, and Nielsen Advanced Advertising... These initiatives will drive the market forward.”

Source: (1) <https://projectoar.org/>



sparkninity

www.sparkninity.com