SSAI Benefits

for Streaming Stakeholders

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Introduction

In this multi-screen world, viewers demand access to high-quality content in live, catch-up and VOD watch modes, on all devices. Meeting this demand requires business models that ensure consistent profitability in the highly competitive media and entertainment industry. Targeted advertising revenue has for a while been a key focus for content and service providers, as it provides high profit potential. Nevertheless, reaching advertising audiences across all platforms and all content types is a challenge for many operators, programmers and broadcasters. This challenge will only increase as content and service providers advance their monetisation strategies, while having to ensure compliance with ever-evolving content and monetisation rights contracts. Because it is independent from the viewers' devices, server-side ad insertion is the smart choice for monetising your content and engaging and retaining viewers.

Server-side Ad Insertion: The Basics

Server-side ad insertion (SSAI or Dynamic Ad Insertion) technology plays a vital role in re-shaping the way content is monetised in a fragmented consumption landscape. SSAI is

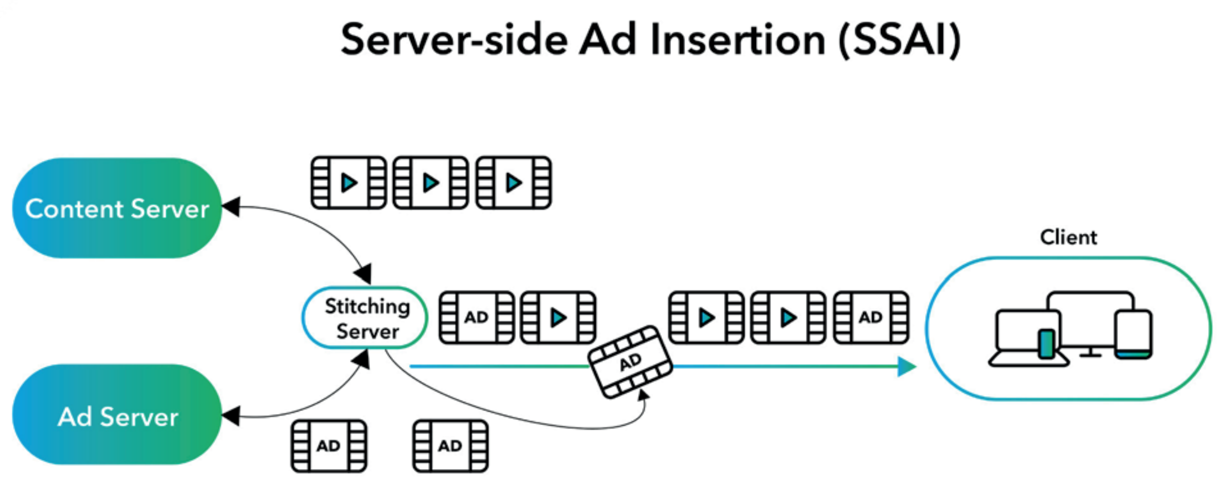

Figure 1

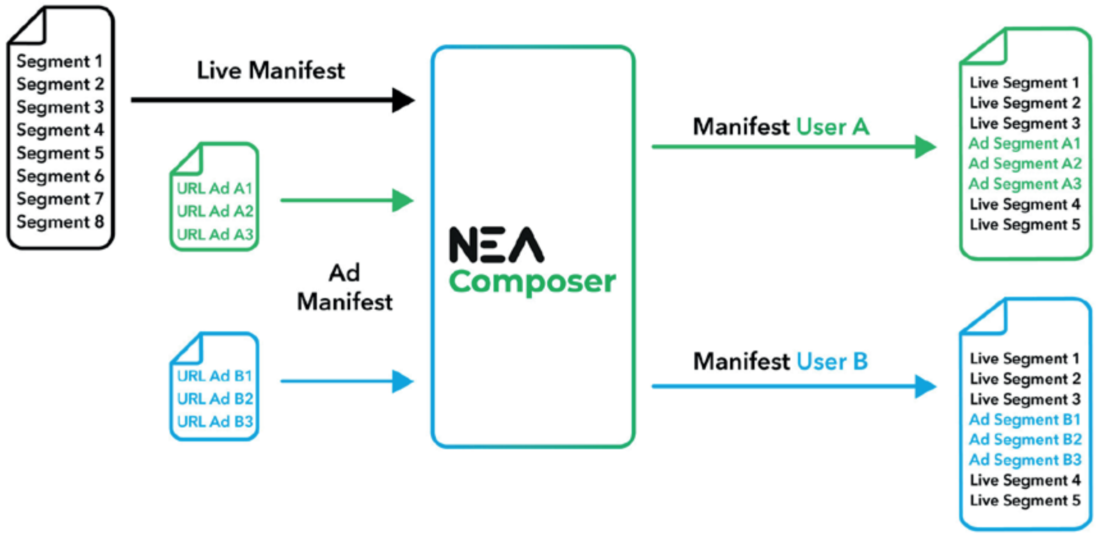

Figure 2

achieved with technology referred to as manifest manipulation. The role of a manifest manipulator is to dynamically insert ads in HLS and DASH streams for live, VOD and catch-up content. Based on a wide range of targeting mechanisms, SSAI technology receives information from ad decisioning systems (ADS) for each insertion opportunity, ensures ads are in the right formats and resolutions via a transcode process, and then stitches them into outgoing HLS and DASH clients' manifests before content is delivered to viewers.

SSAI offers major benefits for operators, content owners, advertisers and viewers that are highlighted within subsequent sections of this white paper. But before exploring the details, here is a list of key business questions that you as a service or content provider should thoroughly study before embarking on an SSAI journey:

1. How much revenue uplift should I expect from SSAI?
2. Will advertisers favour my inventory because it is SSAI-enabled?
3. Will SSAI help open new inventory that was previously not monetisable?
4. Can SSAI help improve viewers' experiences and keep them loyal to my service?
5. What is the role of first-party data in advertising? And how can it be utilised to maximise revenue?

The purpose of this paper is to give you insightful answers to all these questions. It provides an in-depth analysis of key reasons why SSAI should be first on your priority list.

SSAI vs. CSAI

Client-side ad insertion (CSAI) is a mechanism that relies on video players to retrieve an ad decision from the ad server and insert the ads for the viewer. The major difference between CSAI and SSAI is that in CSAI the insertion process happens on the client side, while in SSAI the insertion is done on the server-side. While CSAI is relevant for inserting banner and image-based ads, it isn't the best technology to deliver video ads.

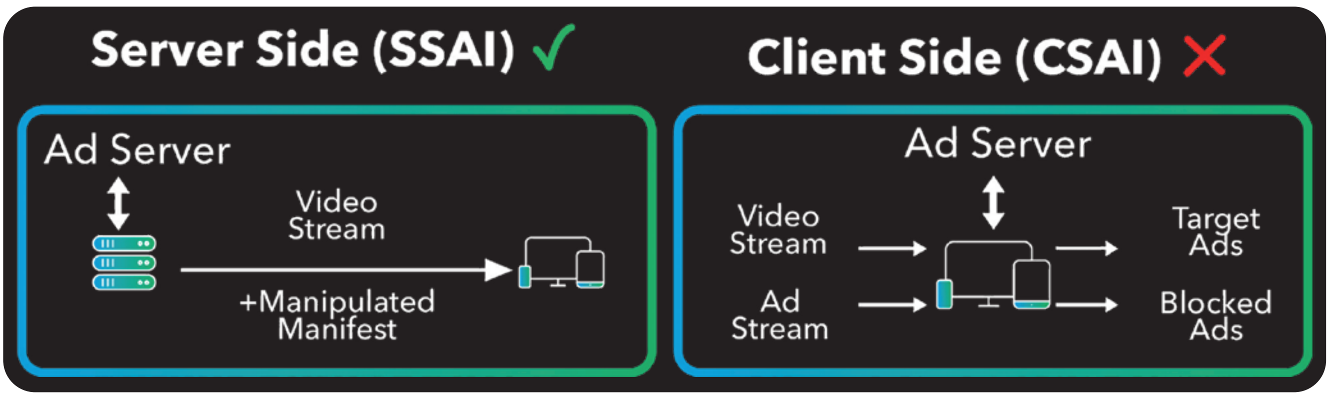

Figure 3

SSAI offers the following key benefits when compared to CSAI:

1. **Increases Revenue**
   SSAI is a premium way to deliver ads, so, advertisers pay more for SSAI inventory. It also allows for frame-accurate ad break personalisation in live content, proven cumbersome for CSAI.
2. **Perfects the User Experience**
   SSAI ads are inserted with frame accuracy and don't buffer before playback. Ads are also transcoded to match the resolution and bitrate of content they are being stitched into to avoid quality perception differences.
3. **Increases Ad Reach**
   Unlike the lengthy integration projects needed to adjust CSAI on each viewing device, SSAI ads run smoothly right out of the box on any HLS- or DASH-compliant device.
4. **Overcomes Ad Blockers**
   CSAI ads are easily thwarted by ad blockers. SSAI adds immunity to ad blockers as viewers receive a single content stream with previously personalised ads stitched in. This technique overcomes the mechanism used by ad blockers.
5. **Generates Accurate Granular Reporting**
   The more details advertisers receive on their campaign performance, the more they are willing to pay. Ateme's SSAI solution generates accurate and granular reporting that advertisers can trust to measure key campaign delivery and performance metrics.

The DAI Business Case

Efficient Inventory Split

We all know that targeted advertising increases revenue for content and service providers, but why is this the case? To answer this question, we need to look at how advertising inventories have been sold historically and how targeted advertising with SSAI can generate this revenue uplift.

Traditional linear TV advertising has existed for decades. It is sold and bought with "spot" currency. A spot model is where advertisers choose a particular ad spot on a TV channel that occurs at a specific time of day or during a programme that attracts the same audience the advertiser wants to target. This is commonly referred to as a "spray-and-pray" model, where the advertiser buys a spot that goes out to the entire channel audience throughout the country or worldwide with the hope that some viewers will be interested in the advertised product or service. Viewers who see the ad and are outside the advertiser's target group are considered "campaign waste".

With targeted advertising, the model is different. Advertisers buy specific audience campaigns with characteristics matching their potential customers. For example, if an advertiser wanted to target males aged 25-35, interested in sports and living in New York, they would buy a campaign with these target parameters. Their ad would only be shown to viewers matching these criteria. This eliminates the inefficiency of showing the ad to viewers outside the advertiser's target audience, i.e., campaign waste, and reduces costs while reaching the same business objective.

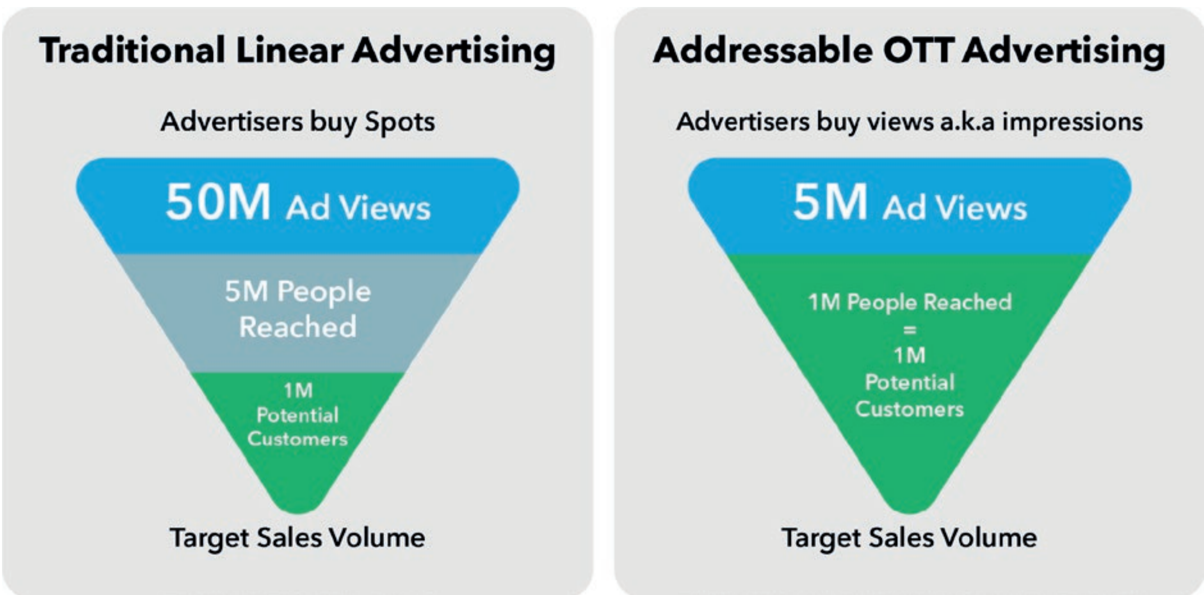

Figure 4

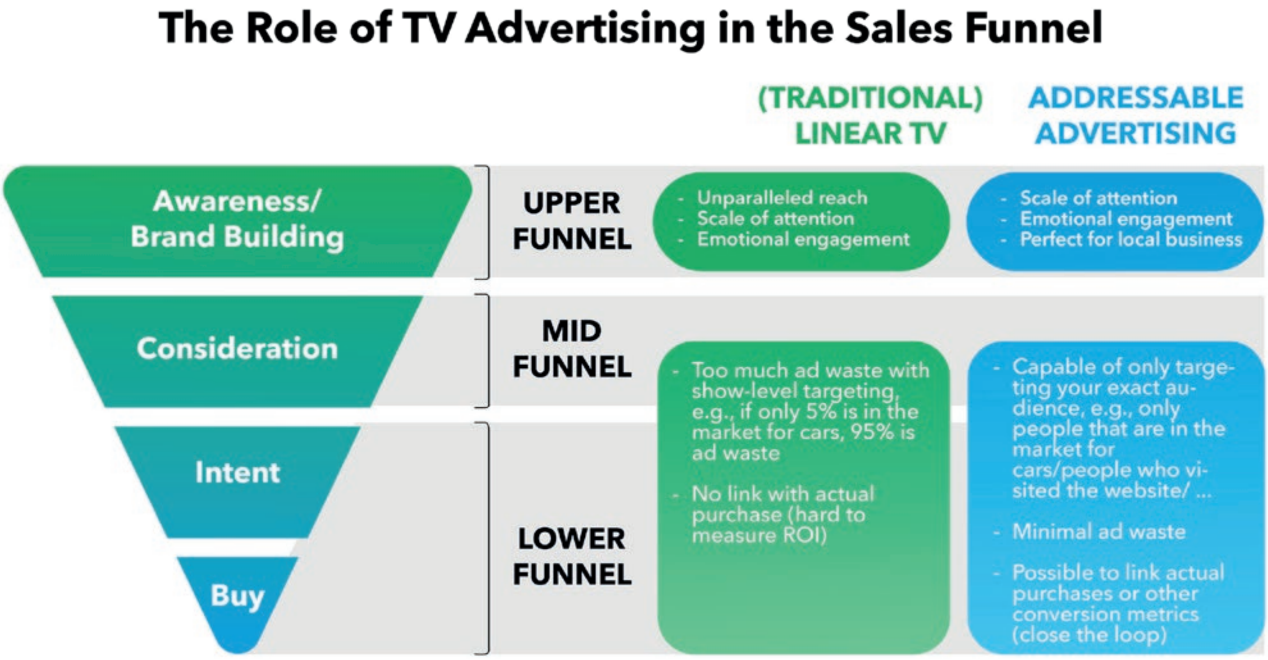

Figure 5

From the content and service providers' perspective, this efficient inventory split means they can fit more campaigns in the same inventory and in turn increase their ad sales revenue.

Globally, addressable TV revenues are on the rise. Behind the scenes, more and more content and service providers are enabling advanced ad-insertion technologies to make their inventories addressable-friendly. Naturally some regions are ahead of others, with the US leading the way in inventory size and cost-per-video campaign. Targeted video campaigns are sold and bought with a currency called cost per mille (CPM), or cost per 1000 ad views. The figure above shows that addressable revenues are expected to grow from around $15 billion to $80 billion between 2018 and 2025. This is a three-fold growth in seven years.

Looking specifically at the US market, eMarketer research indicates that in 2025 advertisers will spend a total of $93.33 billion on video advertising, from which $27.47 billion will be on addressable inventories associated with connected TV (CTV) inventories.

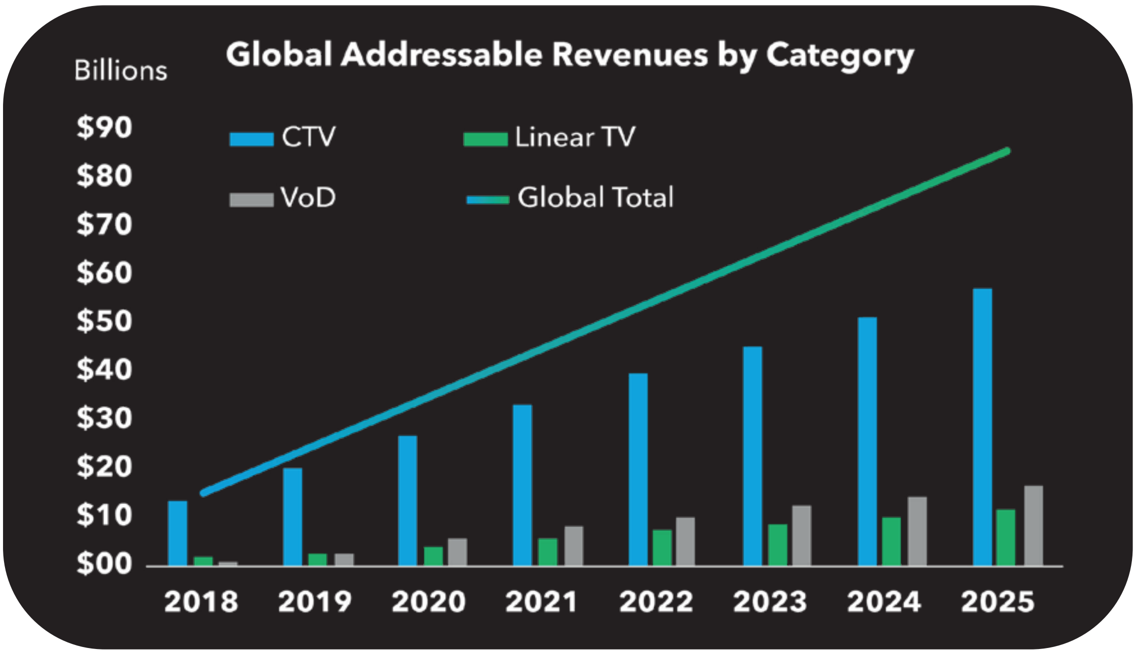

Figure 6
Source: Broadband TV News

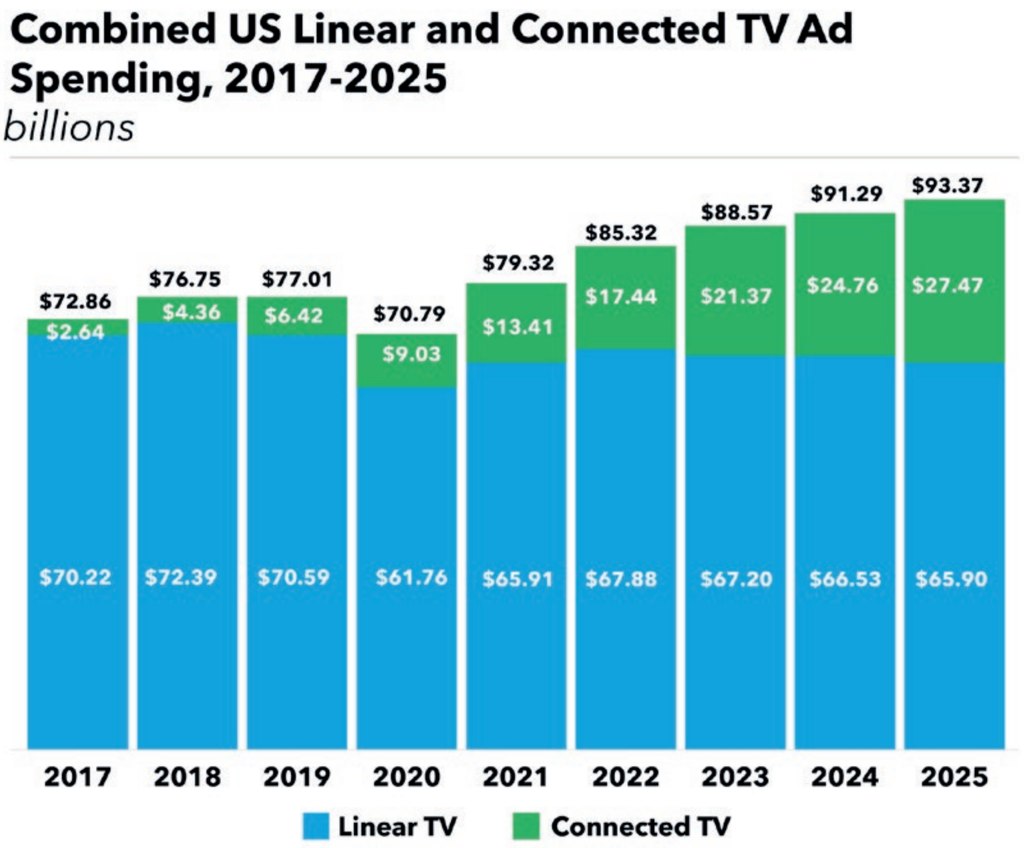

Figure 7
Source: emarketer, March 2021

Subscription VOD services have been around for a while. The current trend worldwide is complementing SVOD services with advertising-based VOD (AVOD) to reach the maximum revenue potential. Discovery, Paramount and Netflix have adopted this approach of complementing SVOD with AVOD. Subscribers are also reporting subscription fatigue where they are required to subscribe to multiple SVOD services to get the content they want. Instead, they now prefer to watch free content with some ads to avoid over-stressing their monthly credit card bills, especially during the current high-inflation macro-economic environment.

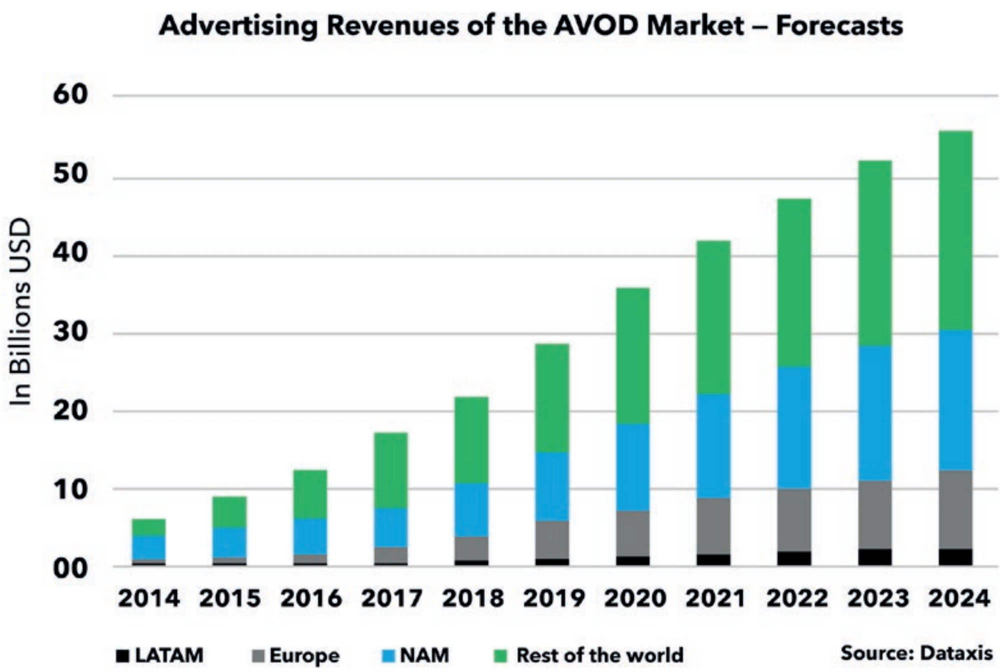

Figure 8

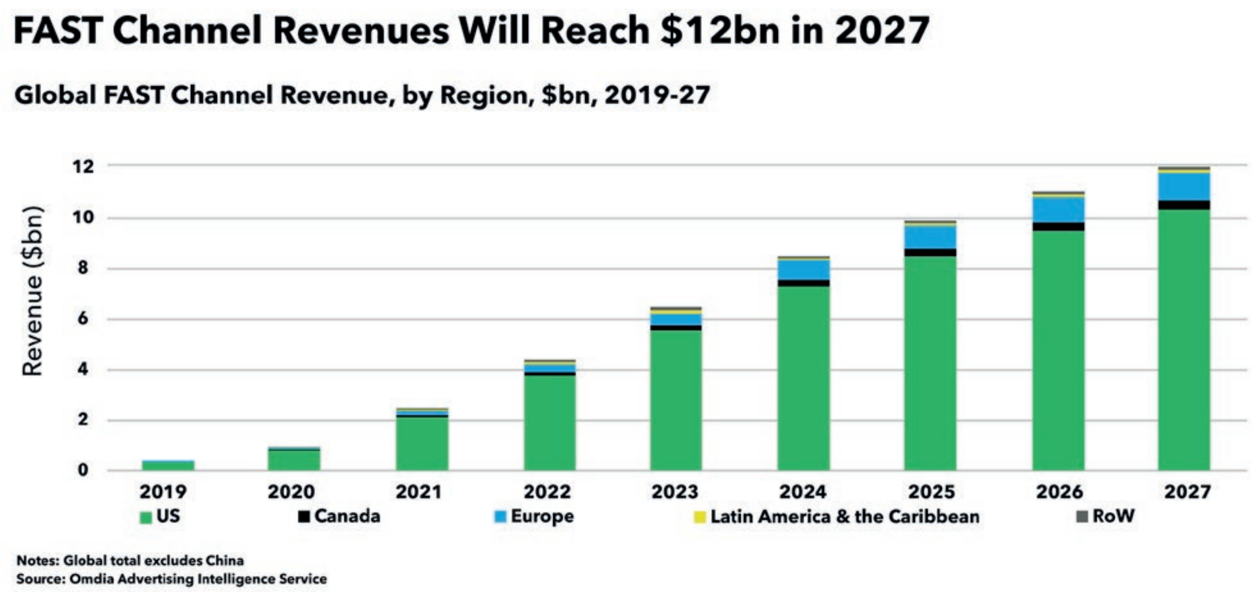

Figure 9

Dataxis expects the AVOD market to surpass $55 billion by 2024, with North America taking the lead in this major market.

Free ad-supported television (FAST) is a type of streaming service available without a paid subscription. These streaming services are entirely funded by advertising. FAST content includes traditional linear programming, studio-produced movies, and series in live and VOD formats.

Omdia found that FAST channel revenues in the US grew 20-fold between 2019 and 2022, and they will likely triple between 2022 and 2027. Today, the US accounts for 90% of FAST revenues with $4 billion. By 2027, the US FAST channel market is expected to exceed $10 billion in revenue, but the fastest growth will likely come from countries outside of the US.

Big Money and Bigger Benefits

Content and service providers are driven by two main objectives: boosting revenue and adding features that make the service sticky to their subscribers. So, where does SSAI come in? Is it about increasing revenue or developing a better user experience? Or both?

SSAI Revenue Uplift: Simple Math

To estimate how much revenue can be generated from SSAI: The average consumer watches around four hours of video content per day*. The norm in our industry is an ad load of eight minutes per hour (i.e., 480 advertising seconds/hour). And 30-second ads are slowly becoming the standard duration in many countries. Consequently, the following numbers can be calculated:

Total watched hours per year per viewer = 4 hours per day x 365 days per year = 1,460 hours/year

Ads viewed per hour per viewer = 480 seconds per hour/30 second slots = 16 ads per hour

Total ads viewed per year per viewer = 1,460 x 16 = 23,360 ads per year

For North America

In the US and Canada, advertisers, on average, pay around $25 per 1000 ad views (CPM)**. This value could increase to $50 for premium sports content***, but we'll use the $25 price point in this calculation to stay on the conservative side.

Revenue from advertising per viewer per year = 23,360 ads per year x $25 per CPM = $584 per year.

In North America, SSAI can generate $584 per subscriber per year.

For Europe

In EMEA, European advertisers, on average, pay around $15 per CPM.**

Revenue from advertising per viewer per year = 23,360 ads per year x $15 per CPM = $350.40 per year.

In Europe, SSAI can generate $350 per subscriber per year.

For Latin America

In Latin America, advertisers, on average, pay around $5 per CPM.**

Revenue from advertising per viewer per year = 23,360 ads per year x $5 per CPM = $116.80 per year.

In Latin America, SSAI can generate $116 per subscriber per year.

For Asia

Similar to Latin America, Asian advertisers, on average, pay around $5 per CPM.

Revenue from advertising per viewer per year = 23,360 ads per year x $5 per CPM = $116.80 per year

In Asia, SSAI can generate $116 per subscriber per year.

SSAI-generated revenue will be split between the content and service providers. Content owners usually demand a cut from this revenue as it is their content that is monetised.

The revenue split percentages between service and content providers vary depending on the type of content and the strength of the service provider in negotiating a deal with the rights owners.

SSAI Makes Sense for All Stakeholders

SSAI is not only beneficial for content or service providers; it also adds key benefits to advertisers and viewers. Below is a list of key benefits for each stakeholder:

Content Owners

- Reduces churn through improved viewing experience with personalised ads without buffering
- Increases revenue by:
  - Unlocking new inventory for monetisation
  - Delivering reliable and transparent content monetisation of affiliate distribution partners

Service Providers

- Enables higher engagement and loyalty through increased ad relevance
- Increases revenue by:
  - Additional ad revenue streams
  - Increasing usage with customised content

Advertisers

- Improves campaign efficiency with hyper-personalised targeting
- Increases ad reach to run cross-device campaigns
- Delivers reliable reporting to measure campaign performance and efficiency
- Protects the brand image with a better ad viewing experience as SSAI ads do not buffer before playback

Viewers

- Increases engagement thanks to relevant hyper-targeted ads
- Improves ad viewing experience as SSAI ads do not buffer before playback
- Delivers personalised live channels with addressable ads

Personalisation as a Key Differentiator

For service providers that want to win in the next phase of the streaming wars, passive TV consumption no longer does the trick. Hyper personalisation is increasingly becoming crucial to differentiate your service from competitors. A proven tactic to retain subscribers is to present them with what they want, when they want it.

However, hyper personalisation to a specific viewer is a broad concept. It involves several aspects including personalising the interface, messaging, content and ads. SSAI is the perfect tool to personalise both content and ads. The underlying manifest manipulation technique in SSAI is used to swap original segments with those personalised in clients' HLS or DASH manifests. The swapped segments could be ad segments or content segments to personalise the content for each viewer.

** https://monetizepros.com/cpm-rate-guide/video/

*** https://www.simantel.com/are-super-bowl-ads-worth-it/

For example, two different subscribers could be watching the same live channel. One subscriber, a car enthusiast, watches a racing event, while the other, a foodie watches a cooking competition. The same scenario is also applicable for ads.

Understanding your viewers' behaviour is the fuel to ignite your personalisation engine. That's why collecting and leveraging first-party data has become a make-or-break strategy in our fast-moving video industry.

First-Party Data: The Fuel to Ignite Ssai Revenue

Leverage First-party Data

Third-party cookies will soon become irrelevant. In a cookie-less world, the only way for advertisers to target their customers is with accurate first-party data provided by the content or service owner.

Content and service providers own the inventory, which can multiply with millions of watched hours every month. They also own the relationship with their viewers. They know their customer profiles from the subscription or registration data. The viewer engagement on their platforms also generates a wealth of data every day. For example, what content the viewer watches and when can easily indicate their topic affinity. Such data is very valuable to advertisers.

Through interactive surveys or panels, content and service providers can also ask their viewers about their preferred topics or which ad categories they favour. Viewers are largely open to providing such data when rewarded with a more personalised service. At the end of the day, if viewers are going to watch ads anyway, they prefer to see those related to their interests. First-party data for video content and service providers can include:

Declared customer data: provided when the viewer subscribes or registers for the service. This data set can include name, age, gender, region, job title, industry, etc.

Contextual data: including metadata describing the live or VOD stream. Contextual data for video can be collected from content metadata, video frame analysis to determine the content of a frame, and audio stream analysis to determine the topic or theme of content. If content or service providers want to use contextual data efficiently, they should collect and activate each area.

Behavioural data: describes the viewer's behaviour on the platform. It can include sets describing the favorite content genres of a viewer, how long they watch it, when they watch it, and where they go afterwards in addition to other metrics collected.

The Role of DMPs in Ad Insertion

A Data Management Platform (DMP) is a centralised database technology platform that allows content and service providers to collect, store, and manage large volumes of viewer data, including demographic information, viewing history, viewing behaviour, affinity metrics, etc. DMPs are used to build and organise audiences and enable more targeted and personalised advertising campaigns.

The primary role of a DMP in advertising is to help the publisher and advertisers create more effective and efficient ad campaigns by leveraging first- and third-party data to identify and target specific audiences. By using a DMP, streaming platform owners can collect and analyze data from multiple sources to create detailed customer profiles, segment their audience, and target them with relevant and personalised ads.

DMPs also help advertisers measure the effectiveness of their campaigns by providing detailed reporting and analytics, including insights into how customers interact with their ads and how they move through the sales funnel.

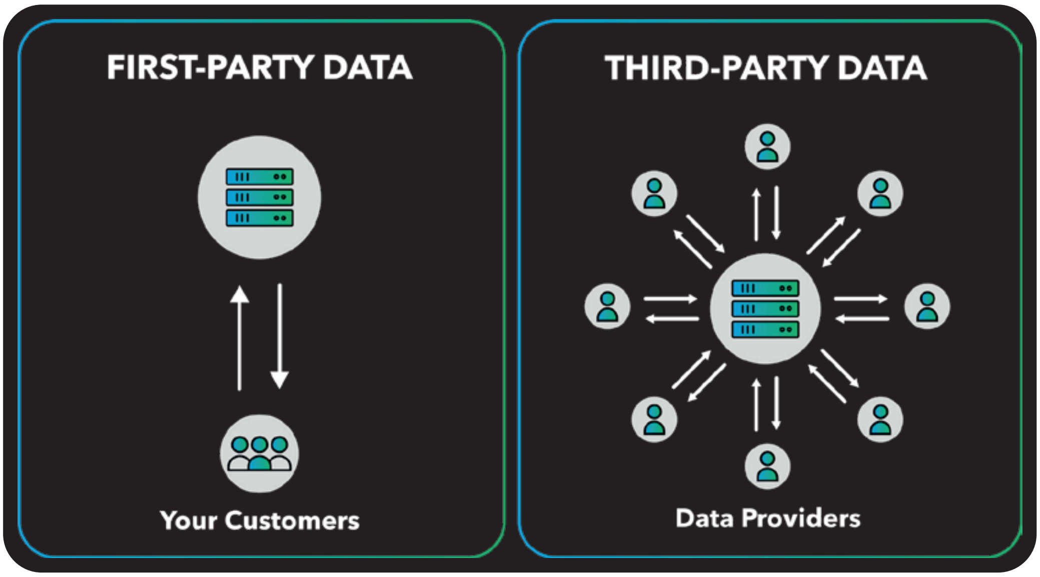

Figure 10

Content and service platforms worldwide are new to this data collection and activation topic. Some service platforms, especially in the US and UK, are quite advanced in collecting, storing, and activating first-party data. Some are also leveraging customer data from third-party aggregators or rich data pools, such as Mastercard or Visa, to know more about their audiences and target them with the right ads at the right time. To many other service platforms, the topic is new. They are now looking at different options to collect and store data efficiently. It is worth noting that telcos specifically have a huge opportunity as they can collect many data points about their subscribers from their browsing history on both web and mobile platforms.

Privacy Laws and Implications for SSAI Solutions

It is important that content and service providers comply with the applicable privacy laws in their country or region of operation. Naturally, no privacy discussion is complete without mentioning the General Data Protection Regulation (GDPR). In the European Union, this law provides a legal framework for keeping everyone's personal data safe by requiring companies to maintain robust processes for collecting, handling, storing, and activating personal information about their customers. Consensual collection from each viewer becomes mandatory under GDPR. Viewers should also know who their data is being shared with and be able to alter these sharing processes at any time. They should also be given the right to opt in or opt out of targeted advertising.

Several regional restrictions also apply. While GDPR is a European law, it also has implications for streaming companies that collect data from European residents, regardless of whether they are based in the US or elsewhere. In California, there is the California Consumer Privacy Act (CCPA), which is a federal law granting consumers the right to know what personal information is being collected about them, and to choose to delete it at any time.

SSAI solutions, or manifest manipulators, are generally transparent to data collection and transmission. They pass whatever data they receive to ad servers to make decisions for which ads to deliver to each viewer. Therefore, they can be considered as data processors along the data chain. Hence, content and service providers must make sure their manifest manipulators comply with regional privacy laws.

A common practice in this subject is that content and service providers obfuscate the viewer data in the player before sending it on to the advertising decision process. Instead of sending personal information about viewers from a player, a pseudo-anonymised code is generated and sent through the advertising chain. If this pseudo-anonymised code is interrupted, it cannot be associated with a particular viewer unless resolved by a specific decoding software that only the operator knows and controls. This way, the operator is not sending personal information in the pipe, which is compliant with GDPR practices.

Fight Churn with SSAI

Competition between OTT platforms is becoming fierce. With just a few clicks, consumers have the power to cancel their subscriptions and move to another OTT service. OTT service providers have a major challenge to retain, and grow, their subscriber base. That is why churn reduction techniques have become highly valuable in today's streaming battles.It costs less to keep a subscriber than to acquire a new one.

Modern SSAI solutions help fight churn. It has been found that almost all churning subscribers watch less and less gradually before they leave. SSAI mechanisms can target subscribers as they watch less with subscription promo offers or ads about interesting upcoming content to keep them engaged and enticed. Operators that have implemented such mechanisms have succeeded in reducing their churn rates.

Conclusion

SSAI technology is critical in re-shaping the way content is monetised. And it is not only beneficial for content or service providers; it also adds key benefits to advertisers and viewers. OTT services often differentiate themselves with personalisation features, and SSAI plays a key role in these workflows. Ateme's SSAI solution overcomes ad blockers, generates accurate and trustworthy granular reporting, perfects the user experience and increases ad reach and revenue.

Your first-party data is your advertising's hidden treasure. A strategic approach to collecting, storing and activating it will help increase your advertising revenue and captivate your audience with more personalisation features.

For more information, see www.gft.com