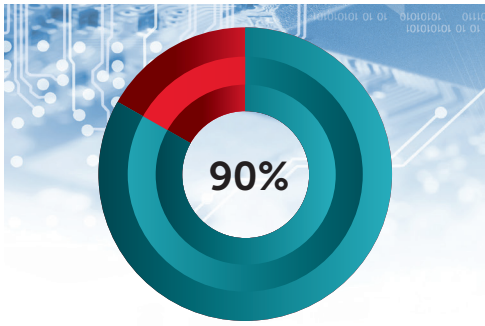# TAG FRAUD U.S. BENCHMARK STUDY

NOVEMBER 2020

A report conducted by The 614 Group,
commissioned by Trustworthy Accountability Group

90%

TAG Certified Channels have
90% less fraud
than the industry average

MARKETERS SPENT
APPROXIMATELY
$1.6 BILLION
ON TAG CERTIFIED TRAFFIC

Executive Summary

Trust is essential for the digital advertising ecosystem to function. Advertisers must be able to trust that real humans see their ads in brand-safe environments, and publishers must trust that they will be fully compensated when ads appear on their sites. That type of confidence and trust in digital advertising requires players across the supply chain to work together to ensure quality and brand safety.

Digital advertising fraud has been a persistent brand safety challenge for the industry. Recognizing that individual companies or agencies cannot combat fraud alone, the problem is one that the entire supply chain has tackled with concerted effort. In that vein, the industry came together in 2014 to form the Trustworthy Accountability Group (TAG), a cross-industry self-regulatory program to fight ad fraud and other criminal issues in the digital supply chain. TAG's Certified Against Fraud Program (i.e., TAG Certification) focuses on combating invalid traffic (IVT) across the digital advertising industry and provides companies with a means to publicly communicate their commitment to fighting this type of criminal activity.

In 2020, The 614 Group conducted its fourth annual quantitative and qualitative research study to measure how considerable an impact TAG Certification has had in reducing IVT in actual campaigns. It was also used to identify spikes or flare-ups in fraud and assess how agencies respond when discovering its presence in a campaign in the U.S. market.

The research focused on discovering whether rates of sophisticated invalid traffic (SIVT) and general invalid traffic (GIVT) were lower in TAG Certified Channels than the industry average. Specifically, these channels are those in which multiple entities involved in the transaction – such as the media agency, buy-side platform, sell-side platform, and/or publisher – had achieved the TAG Certified Against Fraud Seal. The discussion also develops the state of practices and opinions on the topics of fighting IVT. We found that:

1.05%	90%
% of IVT impressions found in TAG Certified Channels	Reduction of IVT in TAG Certified Channels compared to industry averages
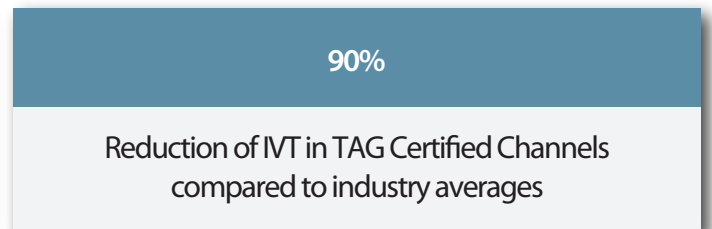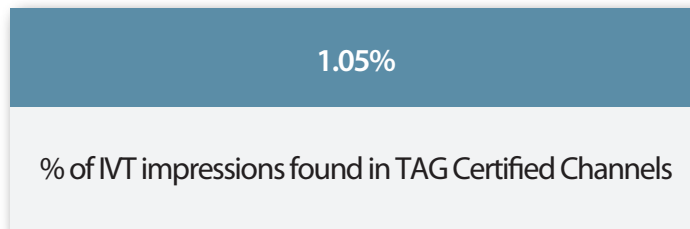
The IVT Rate in TAG Certified Channels is 1.05% – a 90% Improvement Over Industry Averages
We examined 353 billion impressions that flowed through TAG Certified Channels and measured an overall IVT rate of just 1.05%, a 90% improvement over the industry rate of 10.83%.

The IVT Rate in TAG Certified Channels for CTV is Just 0.60%
While the industry struggles with measurement and technical challenges that make it difficult to fight IVT in Connected TV (CTV), the IVT rate in TAG Certified Channels is just 0.60%.

Study Background and Objectives

The digital advertising industry has long acknowledged that the fight against fraud requires a concerted effort, with all market participants working together to ensure traffic quality and brand safety. The industry came together in 2014 to form the Trustworthy Accountability Group (TAG), a cross-industry self-regulatory program to fight ad fraud and other criminal issues in the digital supply chain. TAG's Certified Against Fraud Program (i.e., TAG Certification) focuses on combating fraudulent invalid traffic (IVT) across the digital advertising industry and provides companies with a means to publicly communicate their commitment to tackling this type of criminal activity.

The digital ad industry's coordinated action through TAG and other initiatives has begun to bear fruit. In 2017, TAG approached The 614 Group to help measure the effectiveness of TAG Certification in reducing IVT in actual digital advertising campaigns and establishing a benchmark to be used to assess continued efficacy over time, noting improvements or declines in the IVT rate. TAG and The 614 Group continue to partner in releasing an annual benchmark of the IVT rate found in campaigns that flow through TAG Certified Channels compared to IVT found in non-Certified channels.

Research Methodology

This is the fourth annual TAG Fraud Benchmark Study conducted by The 614 Group in the U.S. digital market, and it continues to follow the methodology established in 2017. This year we measured 353 billion impressions that flowed through TAG Certified Channels – a 76% increase over 2019.

The 614 Group analyst team analyzed 100% of the impressions to which we were given access by the agencies who shared data. We also interviewed experts at agencies and others on background.

Quantitative Analysis

Data Collection and Processing

The 614 Group partnered with six agency holding companies and their MRC-accredited measurement vendors to collect and aggregate all impressions for campaigns executed from January 2020 to August 2020. These campaigns included desktop (display and video), mobile web (display and video), mobile in-app (display and video), as well as CTV.

100% of the impressions given to The 614 Group were reviewed in the measurement. Upon receipt, all data was aggregated within a secure database to create the proper reporting.

Study Parameters

Inventory Type	Desktop Display Desktop Video	Web Video In-App Display In-App Video
	Mobile Web Display Mobile	CTV
Types of Fraud Examined	SIVT GIVT	
Volume of Impressions Examined	578 billion (total)	
Measurement Interval	January 2020 - August 2020	
Data Examined	100% of data provided by 6 leading media agencies	

Defining Fraud and Invalid Traffic

Fraud is a generic term encompassing a range of nefarious activities. For the purposes of this report, we are specifically concerned with invalid traffic (IVT), which is defined by the Media Ratings Council (MRC) as "traffic that does not meet certain ad serving quality or completeness criteria, or otherwise does not represent legitimate ad traffic that should be included in measurement counts". Among the reasons why ad traffic may be deemed invalid is that it results from non-human traffic (spiders, bots, etc.) or activity designed to produce fraudulent traffic.

There are two types of invalid traffic: sophisticated invalid traffic (SIVT) and general invalid traffic (GIVT). The MRC describes these in the following ways[2]:

- Sophisticated Invalid Traffic (SIVT) includes "traffic identified through advanced analytics, multipoint corroboration, human intervention—such as hijacked devices, ad tags, or creative; adware; malware; misappropriated content."

- General Invalid Traffic (GIVT) includes "traffic identified through routine and list-based means of filtration—such as bots, spiders, other crawlers; non-browser user agent headers; and pre-fetch or browser pre-rendered traffic."

In calculating a full picture of the IVT rate in TAG Certified Channels, we combined both SIVT and GIVT across all inventory types and channels measured to achieve a comprehensive result, which we refer to as the "blended rate" throughout this report.

Calculating the Industry Average of 10.83%

In order to determine an industry fraud average, we blended fraud rates from several MRC-accredited measurement vendors. These rates were obtained directly from DoubleVerify Fraud Report for H2 2019-H1 2020, the ANA/ White Op's 2019 Bot Baseline Report, and IAS Media Quality Report for H2 2019 and H1 2020.

Calculating the Budget Amount Marketers Recapture Using TAG Certified Channels

We began with an estimate of total ad spend that flowed through TAG Certified Channels during this study's measurement interval described above.

Next, we extrapolated a similar rate of spend for the full calendar year of 2020 to estimate the total amount that will be spent on inventory that flows through TAG Certified Channels.

In conducting the study, The 614 Group relied on measurement of data on inventory characteristics conducted by measurement vendors:

Vendors
DoubleVerify
Integral Ad Science
White Ops

All three measurement vendors are TAG Certified Against Fraud and hold accreditations from the Media Rating Council (MRC) that include IVT measurement (for both SIVT and GIVT).

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[2]http://www.mediaratingcouncil.org/020520%20IVT%20Adden-dum%20Update%20Draft%20(Public%20Comment).pdf

Results

Quantitative Analysis and Insights

With just a 1.05% IVT rate, TAG Certified Channels have 90% less fraud than the industry average. By purchasing inventory exclusively through TAG Certified Channels, agencies can meet their clients' demand for little to no IVT in their campaigns.

1.05%	90%
% of IVT impressions found in TAG Certified Channels	Reduction of IVT in TAG Certified Channels compared to industry averages

Advertisers spent approximately $1.6 billion on inventory that flowed through TAG Certified Channels. This year, we measured 353 billion impressions that flowed through TAG Certified Channels during this study's measurement interval. By multiplying the average CPM for each inventory type via public data from eMarketer[3], we determined that marketers spent approximately $1.6 billion on TAG Certified Traffic during the measurement interval.

Total Ad Spend in TAG Channels in Measurement Interval:	$1.6 billion
Extrapolated over Full Calendar Year 2020:	$2.4 billion

Comprehensive Data on Fraud Rates Within TAG Certified Channels By Inventory Type

	Media Type	Total Impressions	IVT Impressions	% SIVT	% GIVT	% IVT
Overall	All	353,778,099,999	3,702,377,006	0.69%	0.35%	1.05%
Desktop	Display	105,844,802,762	1,487,216,377	0.93%	0.48%	1.41%
	Video	14,482,075,690	308,340,789	1.16%	0.97%	2.13%
Mobile Web	Display	96,229,314,819	607,342,557	0.43%	0.20%	0.63%
	Video	12,822,610,269	100,864,192	0.54%	0.25%	0.79%
Mobile In-App	Display	50,843,851,455	490,022,110	0.71%	0.25%	0.96%
	Video	66,206,809,097	662,351,487	0.63%	0.37%	1.00%
CTV	Video	7,348,635,907	46,239,494	0.49%	0.14%	0.60%

[3]https://www.emarketer.com/content/digital-display-ad-pricing-statpack

Year-Over-Year Comparison

	2017	2018	2019	2020
Types of Fraud Measured	GIVT	GIVT/SIVT	GIVT/SIVT	GIVT/SIVT
Number of Impressions Included in the Benchmark	6.5 Billion	75 Billion	200 Billion	353 Billion
Inventory Types Examined	Desktop Display Desktop Video	Desktop Display Desktop Video Mobile Web Display Mobile Web Video In-App Display In-App Video	Desktop Display Desktop Video Mobile Web Display Mobile Web Video In-App Display In-App Video	Desktop Display Desktop Video Mobile Web Display Mobile Web Video In-App Display In-App Video CTV
Number of Participating Agencies	3	5	6	6
Overall Fraud Rate	1.48%	1.68%	1.41%	1.05%
Measurable Improvement Over Industry Avgs	83%	84%	88%	90%

Qualitative Insights Derived from Interviews with Industry Leaders

The goal of the qualitative interviews is to gauge the current state of best practices for fighting IVT inside of the agencies we interviewed and to note any differences as those practices evolve. The questions focused on:

- any new techniques or other technological advances deployed over the past 12 months to combat IVT, including pre-bid and post-bid best practices; and

- measurement challenges to CTV and the impact of those challenges on campaign spend.

We interviewed the following named senior-level executives, as well as others, on background:

Name	Title	Media Agency
Eric Warburton	VP, Ad Operations	Horizon Media
Joe Barone	Managing Partner, Brand Safety America	GroupM
Yale Cohen	EVP, Global Activation Standards	Publicis Media Exchange
David Murnick	EVP, Digital Operations & Technology Partnerships	Amplifi US
Chandon Jones	SVP, US Ad Operations	Kinesso
Derek Nicol	VP, Advertising Technology	CBS Digital

Sources of Data Came From the Following
IAS Media Quality Report
ANA/White Ops 2019 Bot Baseline Report
Data from DoubleVerify shared on request

A special thanks to Scott Cunningham, Founder of Cunningham Tech Consulting, Advisor to TAG, and Founder of the IAB Tech Lab, for his contributions to the research.

Agencies are prioritizing tried and true safe channels.

We've heard from all agencies that internal best practices recommend the use of TAG Certified Channels whenever possible and that they're making steady progress towards the goal of standardizing on TAG Certified Channels. One agency said that 60% to 75% of its campaigns now run through TAG Certified Channels, while another said 85% of their campaigns do. Yet another said their agency set a timeframe by which 100% of campaigns must run through TAG Certified Channels, stating, "We set a deadline to try to become 100% certified channels."

Despite unique challenges fighting IVT in CTV, TAG Certified Channels still have just a 0.60% IVT rate.

There are two serious and unique challenges to detecting, measuring, and filtering IVT in the CVT environments: the absence of measurement standards and server-side ad insertion (SSAI), which lacks transparency. As a result, it is harder to fight fraud in CTV than it is in the desktop and mobile environments, and the rates of IVT reported are higher (The Wall Street Journal reported that up to 20% of streaming TV traffic is fraudulent[4]). It is clear that the industry has a lot of work to do in terms of process and providing transparency to achieve greater success in fighting fraud in CTV.

Multiple agencies told us these challenges are stymying growth in the channel, with one executive predicting that CTV ad spend may grow 50% to 100% once resolved.

These challenges are much less of an issue when agencies choose to work with TAG Certified Channels. As a result, we measured just 0.60% IVT in CTV campaigns that ran through TAG Certified Channels.

Use of Pre-Bid and Post-Bid Differs from Agency to Agency

Today's agencies use various tactics to identify and prevent IVT in campaigns, including pre-bid filtering and post-bid analysis.

To the agency, as we heard in interviews, the proof of pre-bid effectiveness is revealed in the post-bid analysis; campaigns that filter for fraud pre-bid have low rates of IVT in post-bid data. The results of using both tactics can sometimes be dramatic; one agency executive we interviewed told us that when pre-bid filtering is deployed, the IVT rate found in the post-bid analysis is 75% lower.

Not all agencies are equal users of pre-bid filtering. One agency executive told us that pre-bid filtering is only applied when their teams measure an uptick of IVT, which typically occurs in programmatic channels: "If you're using an external programmatic partner, you have to say, 'hey, the post-bid numbers aren't coming out what we want them to be. We think you should layer on pre-bid'...we immediately saw fraud drop significantly". Another agency mandates pre-bid filtering in 100% of their campaigns.

As the digital ad industry continues to grow a threat-sharing culture, it's worth noting that while pre-bid removes IVT earlier in the cycle, it also reduces the industry's ability to track the threats and bad actors who commit this fraud.[5]

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[4]https://www-wsj-com.cdn.ampproject.org/c/s/www.wsj.com/amp/articles/even-in-streaming-tv-advertisers-are-dealing-with-fraud-11601200801
[5]For further discussion, see TAG Malvertising White Paper, https://www.tagtoday.net/blog/tag-today-august-2020

Conclusion

The record-low rate of IVT measured across TAG Certified Channels in 2020 demonstrates the positive and sustainable impact of the TAG Certified Against Fraud Program, and it reinforces both the substance and the direction of the program in several ways.

First, it highlights the tangible value of the program to advertisers and publishers, as billions of dollars that would have been spent on fraudulent impressions can be redirected to legitimate inventory instead. Second, it validates the collaborative, global, and cross-industry approach that TAG has taken by illustrating how that unified effort can close the gaps in the supply chain that have been exploited by criminals. Third, and most important, it creates a road map for the industry to address other seemingly-intractable problems, such as brand safety, by building industry consensus on best practices, raising the bar on industry standards, and sharing real-time information on new and emerging threats.

This report also illustrates how the TAG certification framework is broad and adaptable enough to cover new distribution channels and technologies, such as CTV. While CTV was still a nascent channel when the TAG Certified Against Fraud Program was launched, TAG's protections have seamlessly extended across that new distribution channel, showing the program's success in reducing IVT rates on CTV to a low and manageable level.

Looking ahead, the insights and data points contained in the annual TAG Fraud Benchmark reports will continue to help the industry better understand and adapt this vital program to strengthen its programs, better serve its members, and better protect the digital advertising ecosystem.

Appendix: Additional Study Data

This report's measurement runs from January 2020 to August 2020, but we continue to collect data.

Data trends show the IVT rates in TAG Certified Channels improve over time:
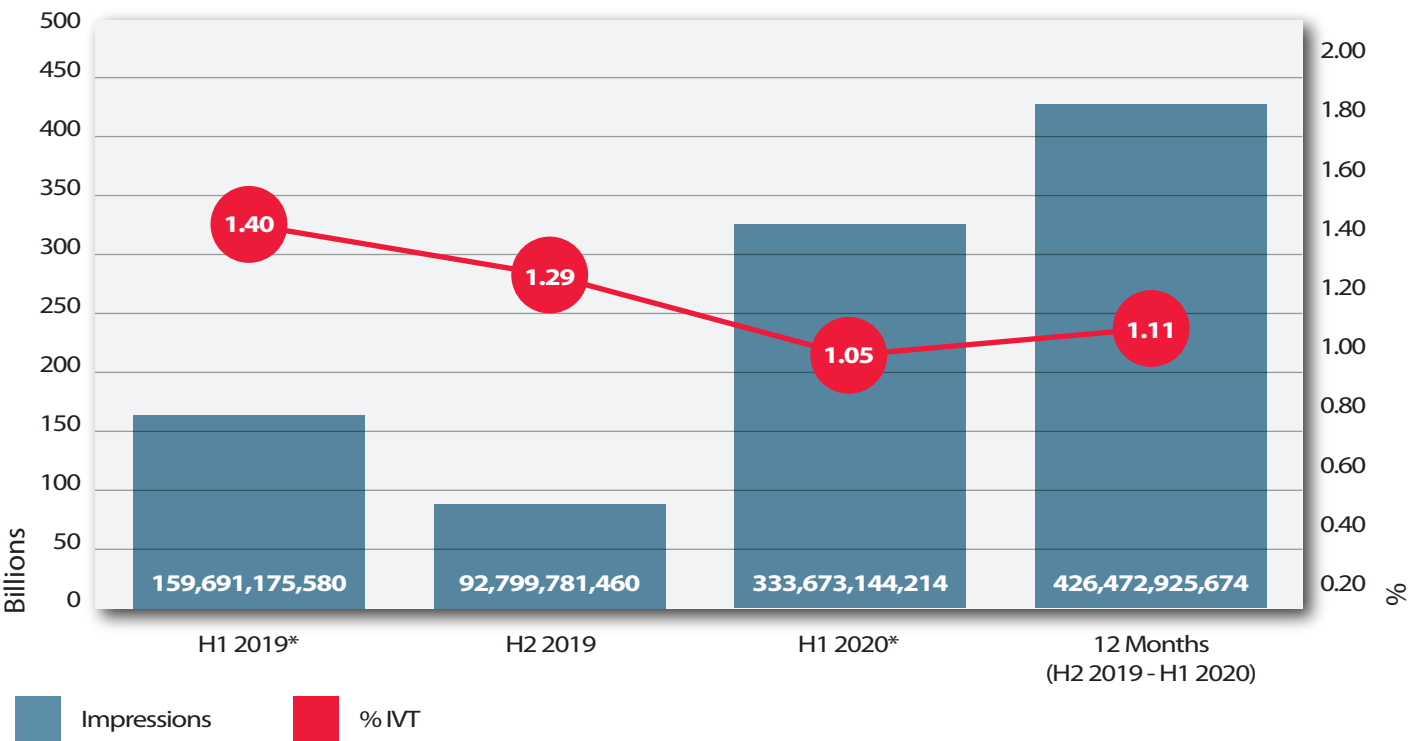
*Measurement Interval

Requirements for TAG Certification

TAG launched its Certified Against Fraud Program in 2016 to combat invalid traffic in the digital advertising supply chain. Companies that abide by the Certified Against Fraud Guidelines receive the Certified Against Fraud Seal and use the seal to communicate their commitment to combating fraud publicly.

Requirement	Scope	Direct Buyer	Direct Seller	Intermediary	Anti-Fraud & Measurement Services
Complete TAG Registration and be a TAG Member in Good Standing	Administrative	●	●	●	●
Have a designated TAG Compliance Officer	Administrative	●	●	●	●
Attend a Certified Against Fraud Training Annually	Administrative	●	●	●	●
Comply with GIVT Detection and Filtration Requirements of MRC IVT Guidelines	Anti-Fraud	●	●	●	●
Employ Domain Threat Filtering	Anti-Fraud	●	●	●	●
Employ Data Center IP Threat Filtering	Anti-Fraud	●	●	●	●
Employ App Threat Filtering	Anti-Fraud	●	●	●	●
Implement Payment ID System	Transparency			●	
Implement & Honor Ads.txt Files	Transparency	●	●	●	

More information about the TAG Certified Against Fraud Seal's specific requirements and application process can be found at www.tagtoday.net.

About the Trustworthy Accountability Group

The Trustworthy Accountability Group (TAG) is a first-of-its-kind cross-industry accountability program to create transparency in the business relationships and transactions that undergird the digital ad industry while enabling innovation. A joint marketing-media industry program, TAG was created to focus on four core areas: eliminating fraudulent digital advertising traffic, combating malware, fighting ad-supported Internet piracy to promote brand integrity, and promoting brand safety through greater transparency.

About The 614 Group

The 614 Group is a results-driven digital advertising infrastructure consultancy, providing strategic and tactical services to our clients. With unparalleled experience, a global network and talent, the firm generates the ideal blend of visionary and executional support services that can be completely customized to each client's capabilities and goals. We empower the industry-at-large through our original content, live events, and research with cutting-edge education and resources. Based in the U.S., the firm engages more than 40 consultants across three top global markets.