State of the Fight:

A TAG Community Briefing

October 16, 2019 Media Math New York, NY



Agenda

Welcome and Introductions



Are You Staying TAG Compliant?

- How Are TAG Certification Requirements Changing for 2020?
- Preparing for 2020 Recertification
- Conversations You Can't Afford to Miss

The State of the Fight

- How the TAG Community is Turning the Tide on Fraudsters
 - Emerging Issues in the Fight Against Fraud, Piracy and Malware









TAG's Global Vision for 2020...And Beyond

- Certifying Six Continents
- Powering Smart Partnerships
- Building a Threat-Sharing Culture in the Digital Ad Industry
- Supporting the Rise of the Brand Safety Profession



Welcome and Introductions

Team TAG



Mike Zaneis
Chief Executive Officer & President





Michael Hahn
General Counsel







Bonnie Niederstrasser
Director, Policy & Programs

Jamie O'Donnell
Director, Membership Services





Todd Miller
Director, Compliance

Dominique Matthews Manager, Membership Services





Matt Beverin
Manager, Membership Services

Margaret Hackley
Office Manager & EA



The TAG Community...

...Brings Together the Full Digital Ad Supply Chain

TAG is the place where Brand, Agency, Ad Tech and Publisher can partner

...Spans the Globe

- Operates on 6 continents
- 25% headquartered outside of the U.S.

... Meets the Highest Standards

- 140+ companies hold 199 seals
- 37% average increase in companies certifying across TAG programs in 2019
- 60% growth in companies choosing Platinum Status (earned all 4 seals)

...Is Growing Fast

550+ Companies in just 4 years



Are You Staying TAG Compliant?

How Are TAG Certification Requirements Changing for 2020?



Updates to the Certified Against Fraud Program

Certified Against Fraud Guidelines v5



Requirement	Direct Buyers	Intermediaries	Direct Sellers	Fraud & Measurement Services
Independent Validation for a Geographic Applicability of: Global, Europe, any European country	✓	✓	✓	✓
Domain Threat Filtering Exemption for Mobile Apps	- • • •	. . / .	. .//-
App Threat Filtering	✓	✓	✓	
Honor posted ADS.txt files	✓	✓		

Enforced as of January 1, 2020

Updates to the Certified Against Fraud Program

Certified Against Fraud Guidelines v6



Requirement	Direct Buyers	Intermediaries	Direct Sellers	Vendors
Employ Publisher Sourcing Disclosures			- -	

Enforced as of July 1, 2020

Updates to the Certified Against Malware Program

Certified Against Malware Guidelines v3



Requirement	Direct Buyers	Intermediaries	Direct Sellers	Vendors
Employ SeatID Attributes to Troubleshoot and Handle Malware Incidents			✓	
Use OpenRTB v2.2 or higher	~	✓	✓	

Enforced as of January 1, 2020

Updates to the Inventory Quality Guidelines Program

Inventory Quality Guidelines v3



Requirement	Direct Sellers	Intermediaries
Implement and Honor ADS.txt	✓	✓
Direct Buyer disclosures		
Align Brand Safety Ratings and Prohibited Content with APB Brand Safety Floor/Framework	✓	
Use OpenRTB v2.2 or higher	✓	✓

Enforced as of January 1, 2020

Preparing for 2020 Recertification



What a Difference a Year Makes!

2019 Recertification

By the Numbers

 103 companies were recertified for 139 seals

Geographic Applicability

 59% of companies certified global operations

Certification Type

 30% of companies chose Independent Validation

2020 Recertification

By the Numbers

140+ companies have earned
 199 seals to date...and are due
 to recertify

Geographic Applicability

 Global certification is projected to increase

Certification Type

 Independent Validation is projected to increase

TAG Compliance Calendar

	Jan 1 Effective Date for CAF C Effective Date for IQG C Release of CAF Guidelin	te for IQG Guidelines v3 Jul 1 Effective Date for CAE Guidelines v6		Jan 1 Effective Date for 2021	
_	Jan 31 Deadline to Apply for 2020 Recertification	Mar 31 Comment Period for 2021 Reqs/Tools	Jul 30 Final 2021 Requirement and Tools Released	ts	Requirements and Tools Jan 31 Deadline to Apply for 2021 Recertification
Q4	Q1	Q2	Q3	Q4	Q1
2019	2020				2021
Working Groups	Finalizing Drafts of 2020 Requirements and Tools	Focus on new ideas: What does industry need?	Drafting 2021 Require Building and testing re		Finalizing Drafts of 2021 Requirements and Tools
Certification Programs	Jan 31 – Mar 1 2020 Recertification	Mar 31 – June 30 Comment Period for Proposed on	Jul 1 – December 31 Implementation Period 2021 Requirements	od for	Jan 31 – Mar 1 2021 Recertification

2020 Recertification Schedule

Start working on your application...

Soon!

First date to apply for recertification...

January 1, 2020

Deadline to apply for recertification...

January 31, 2020

TAG reviews applications...

Jan 1 to Mar 1, 2020

TAG notifies companies of recertification...

March 1, 2020

TAG will make a public announcement...

March 2020

If You Haven't Been Certified, You Can't Recertify...

2020 Recertification is required only for companies that...

- Have been certified previously in any TAG Certification Programs
- Hold current certifications in any TAG Certification Programs
- Were certified before October 1, 2019

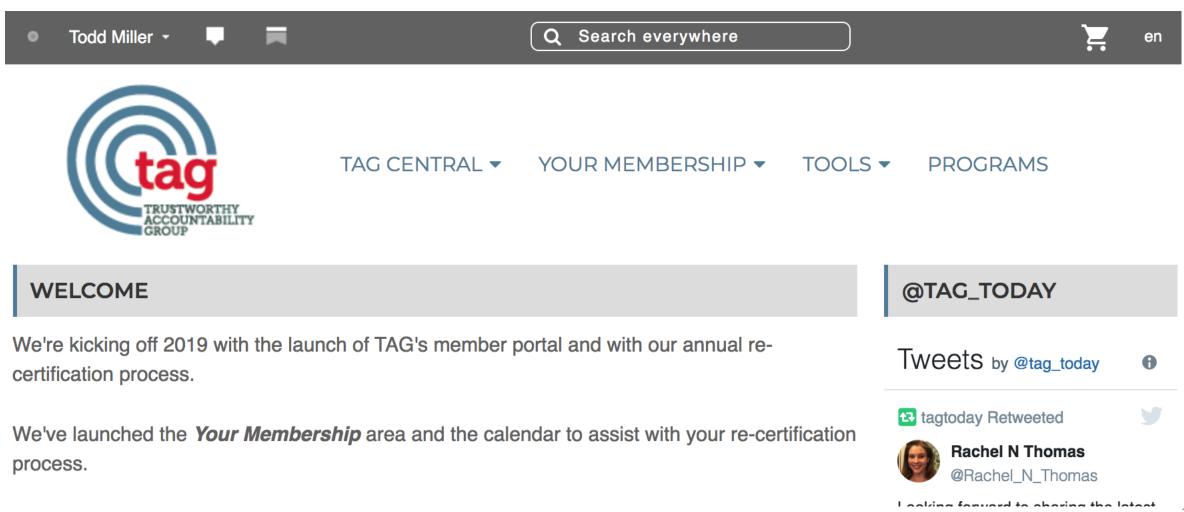
Companies can apply to certify for the <u>first</u> time at any point in the year.

Preparing for Recertification

- Independently validated companies must have been audited in the past 12 months in order to apply for recertification
- Self-attested companies must have completed internal audits for each quarter of past year
- TAG offers compliance assistance as you prepare to apply for recertification...starting now!

How Do You Apply for Recertification?

Through the TAG Member Portal!



Are You In Compliance with the 2020 Requirements

Certification Requirements

- Certified Against Fraud Guidelines v5
- Certified Against Malware Guidelines v3
- Certified Against Piracy Guidelines v2
- Inventory Quality Guidelines v2

Compliance Tool Implementation

- Best Practices for Publisher Sourcing Disclosures v2
- Technical Best Practices Against Malware v2.1
- Pirate Mobile App List Compliance Standard v1
- Payment ID System Compliance Standard v2
- Data Center IP List Compliance Standard v2

NEW RELEASE July 2019

NEW RELEASE July 2019

NEW RELEASE January 2019

NEW RELEASE July 2019



The Anti-Fraud Working Group works to combat the negative impact of fraudulent bot- generated, non-human traffic. TAG develops and enhances antifraud standards, protocols and tools for all types of entities in the supply chain.



Upcoming Topics:

- What does fraud look like in the Over-the-Top (OTT)/ Connected-TV (CTV)
 environment...and how do we fight it most effectively?
- How do coming changes to the MRC's IVT Guidelines impact TAG Members and the future of TAG's Certified Against Fraud Program?
- How should TAG address new fraudster techniques like tag evasion?
- What is the best way to ensure a fraud-free, trusted chain of custody in the digital ad supply chain (Payment ID? Sellers.json?)

The Anti-Malware Working Group coordinates industry-wide efforts to improve defense against malware attacks affecting the digital advertising supply chain to create a safer, more enjoyable experience for consumers and a more trustworthy system for advertisers.



Upcoming Topics:

- How much scanning and rescanning is necessary to stop malware?
- What's the best way to ID buyers whose creative carries malware?
- Are we still talking about malware...or malvertising
- How can we best solve the problem of forced mobile redirects?

The Anti-Piracy Working Group created and maintains the CAP Program to help advertisers and ad agencies avoid damage to their brands from ad placement on websites and other media properties that facilitate the distribution of pirated content and counterfeit products.



Upcoming Topics:

- What does piracy look like in the mobile in-app environment...and how do we fight it most effectively?
- Project Brand Integrity: "Following the Money" across the EU and beyond
- Do the "Core Criteria" underlying the Certified Against Piracy Program still apply to today's piracy landscape?

The Business Transparency Committee builds trust, transparency and account throughout the digital supply chain by developing and promoting the adoption of stand protocols and technologies that recognize trusted industry participants and help comba activity.



Upcoming Topic:

- How can brands more easily buy through fraud-free channels?
- Is Disinformation the new Fake News?
- What should transparency look like in OTT/CTV environments?
- How can Digital Ad Identifiers help you choose the right industry partners?
- Who is doing what to foster greater digital ad transparency?



The State of the Fight

How Is the TAG Community Turning the Tide on Fraudsters?





What is a "TAG Certified Channel"?

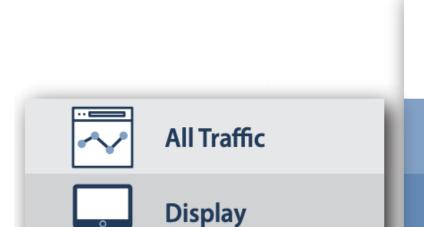


2018 614 Group US Fraud Benchmark Study

Fraud Rate in TAG Certified Channels
Reduction in fraud compared to industry average

1.68%

84%



Impressions

Fraud Rate in TAG Certified Channels

76,958,048,162

66,616,673,455

10,287,883,254

1.66%

1.68%

1.76%



Video



Mobile App⁵

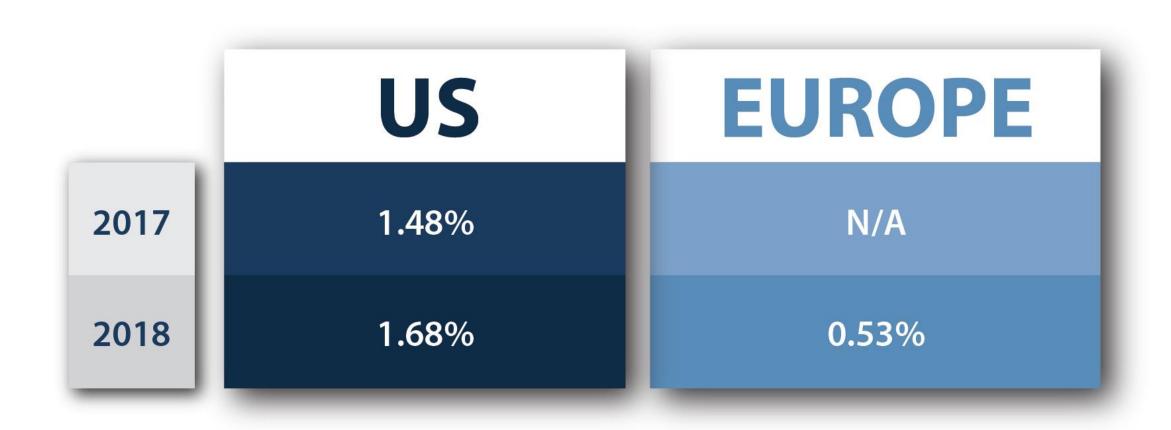
18,235,754,013

0.41%

2018 614 Group European Fraud Benchmark Study

	EUROPE		
Type of fraud measured	SIVT/GIVT		
Number of impressions studied	~4 billion		
Inventory types examined	Desktop Display Mobile Web-Display Desktop Video Mobile Web-Video		
Countries	UK France Germany Italy The Netherlands		
Number of participating agencies	3		
Number of TAG-Certified sources	27		
Overall fraud rate	0.53%		
% Reduction of fraud in TAG-Certified Channels vs. non-optimized channels	94.1%		

2018 614 Group European Fraud Benchmark Study



How Is the TAG Community Turning the Tide on Pirates?



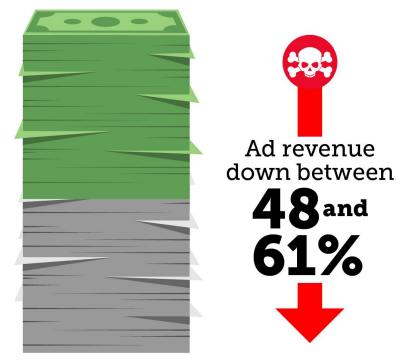


TAG Brief: Winning the Fight Against Ad-Supported Piracy

Industry Action and Impact

- Setting Standards
- Following the Money
- Partnering with Policymakers

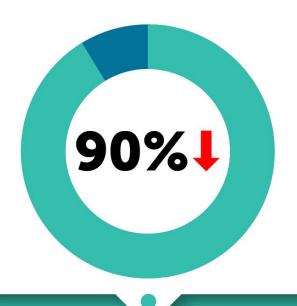


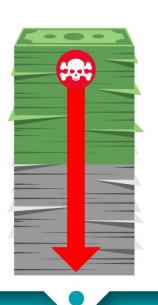




\$102
to 177
Million
in potential
earnings
for pirate
site
operators
prevented

TAG Brief: Winning the Fight Against Ad-Supported Piracy







Brand advertisements no longer appear in the U.S. on pirate sites at volume; representing a 90% decrease from just 2 years ago

Ad revenue flowing to pirate sites has been reduced by between 48 and 61 percent

Industry leaders are stemming the flow of ad revenue to mobile apps with pirated content

Project Brand Integrity

Helping advertisers and agencies avoid brand risk and damage by monitoring

sites that infringe on intellectual property

Identify High Risk Sites and Apply Ad Scanning

Most trafficked pirate sites?
Most infringing content?
Large scale scanning of high risk sites

White Bullet

Analyze Results

Identify outlying brands and agencies for outreach

Internal

Outreach to Agencies and Key Brands

TAG Outreach



Project Brand Integrity

- Total of 50K unique ads delivering 22M impressions across EU countries
- Gambling delivers highest # of estimated impressions on pirate sites, followed by Shopping
- TAG is monitoring all trends for next round of outreach

Ad Insight - Overview

Business intelligence based on top IP infringing websites tracked daily by White Bullet's Ad Monitoring Technology

Total Ad Volume

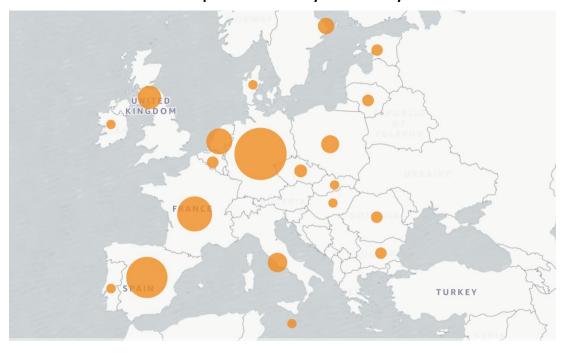
Est. Total Ad Impressions

Unique Brands

22,241,474

338

Geographic Distribution of Delivered
Impressions by Country



How Is the TAG Community Turning the Tide on Malvertisers?





TAG Brief: Increasing Brand Safety Through Malware Scanning

As a requirement of the program, 100% of certified companies commit to scanning a reasonable percentage of campaign assets and landing pages they handle before a campaign launches.



Key Findings:

83% of certified companies perform initial malware scans on all of the campaign assets and landing pages they handle before launch.

92% of the campaign assets and landing pages handled by certified companies handle were scanned prior to initial delivery, on average.

76% of Certified Against Malware companies apply these best practices globally.

TAG Brief: Increasing Brand Safety Through Malware Scanning

TAG Research Brief: Increasing Brand Safety Through Malware Scanning



As a requirement of the CAM program, 100% of certified companies commit to rescanning all of campaign assets and landing pages on a reasonable frequency.

Key Findings:



50% of certified companies employ a daily rescan methodology



25% of certified companies use a risk-based rescan methodology



25% of certified companies follow a volume-based rescan methodology

Confiant Demand Quality Report for Q2 2019

"Given the highly dynamic nature of online advertising, it is difficult to assign a single explanation to the declines, but the trend suggests a confluence of industry-wide factors may have changed the game for malvertisers:

- The near-universal adoption of ads.txt on top sites, which is driving arbitrage and unauthorized resale out of the market and foreclosing IBV opportunities.
- Increased vigilance on the part of the SSPs when it comes to ad quality issues given the highly competitive, and increasingly commoditized, nature of the space.
- ncreased adoption of creative-verification solutions like Confiant's is boosting the industry's defenses.
- Industry initiatives like TAG's Certified Against Malware program, which have increased general awareness around the threat of malware and galvanized efforts to combat it.
- Better coordination between publishers and platforms, which narrows the brief window of time that malvertisers have before their exploits are detected and removed."

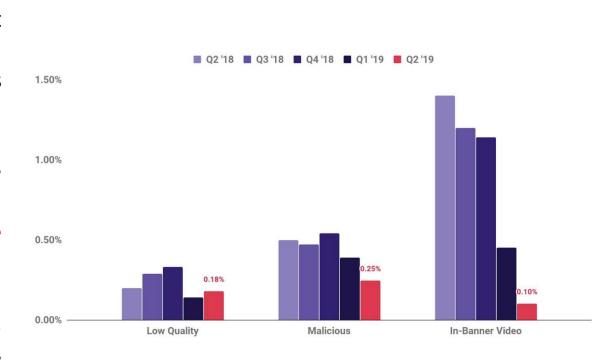


Chart 1: Quarterly rates of Low Quality, IBV, and Malicious impressions

Thought Leadership Coming in Q4



TAG White Paper:

Winning the Fight Against Malvertising

TAG Industry Brief:

Best Practices for Working with Law Enforcement

Emerging Issues in the Fight Against Fraud, Piracy and Malware



The Evolution of Fraud

Tracking Limitations and Misrepresentation in OTT/CTT

Mobile App Install Fraud

Increasingly Sophisticated IVT

Tag Evasion

Influencer Marketing Fraud

The Evolution of Piracy

Unauthorized App Stores and "Back Door" Channels

• Illicit Streaming Devices (ISDs)

- Tracking in OTT/CTV
- Lack of Universal App Identifiers

The Evolution of Malvertising

Auto-Redirects

Tag Evasion

Mobile In-App Environment



TAG's Global Vision

Certifying Six Continents



A Truly Global TAG Community

Today's TAG Members...

- Are headquartered in 25 countries
- Operate on 6 continents
- 25% are headquartered outside of the U.S.



A Truly Global TAG Community

In 2020

- Increased Certification Across Europe
- Expanding Operations in Asia-Pacific
- Making it Easier for Global Members to Engage Fully

And Beyond...

 Harmonization of TAG Certification Standards, Governance and Technological Solutions across Global Markets

Global Standards for Local Markets



TAG aims to deliver a consistent and scalable approach across markets – 'Global Standards for Local Markets'.

This strategy is based upon:

- A. The need for industry standards to enable market growth, effectiveness and trust in digital advertising (as supported by World Federation of Advertisers (WFA) in Global Media Charter);
- B. The importance and effectiveness of cross-border standards in tackling key issues in digital advertising (e.g. ad fraud, viewability, UX); and
- C. An approach that works for national markets (trading, culture, language etc.) but is also underpinned by international standards.

TAG Member Portal: Seamless Engagement Across the Globe

WORKING GROUPS

- Collaborative environment
- Document versioning
- Notes

TRAININGS

- Video recordings
- Searchable content
- Scheduling

CERTIFICATIONS

- Intuitive certification spaces
- Supporting materials
- Communicate with Team TAG

Powering Smart Partnerships



Buying Through TAG-Certified Channels Reduces Fraud

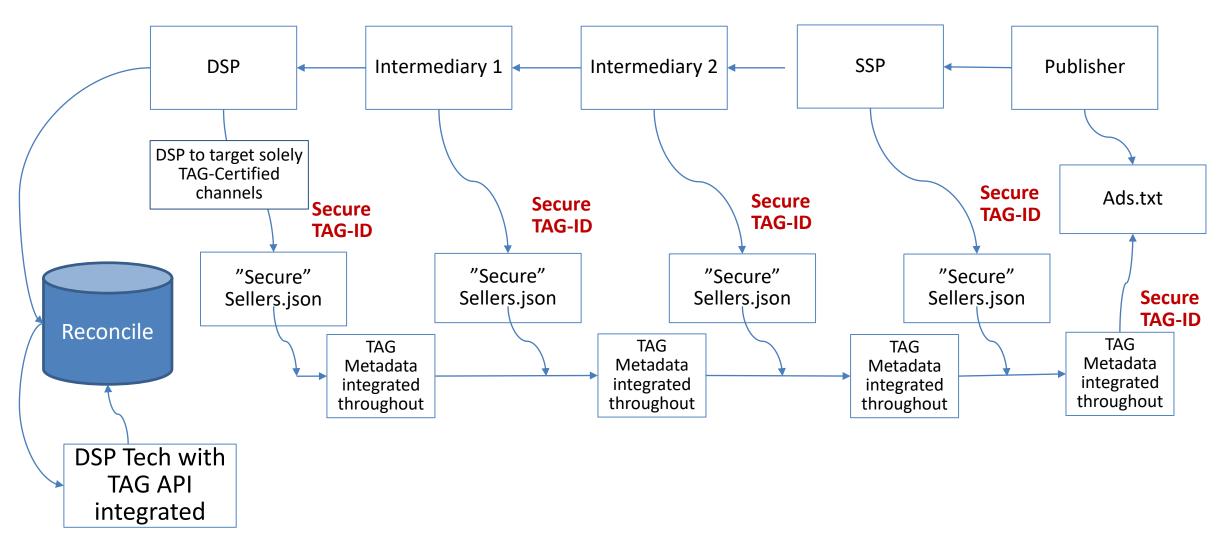
- Brands want an easy way to keep ad spend safe from fraud
- When brands buy through TAG-Certified Channels, fraud drops by 84-94%
- How do brands know if they're buying through safe, TAG-Certified channels?
 - TAG-ID is the key to knowing if a company is TAG-Certified

Current State

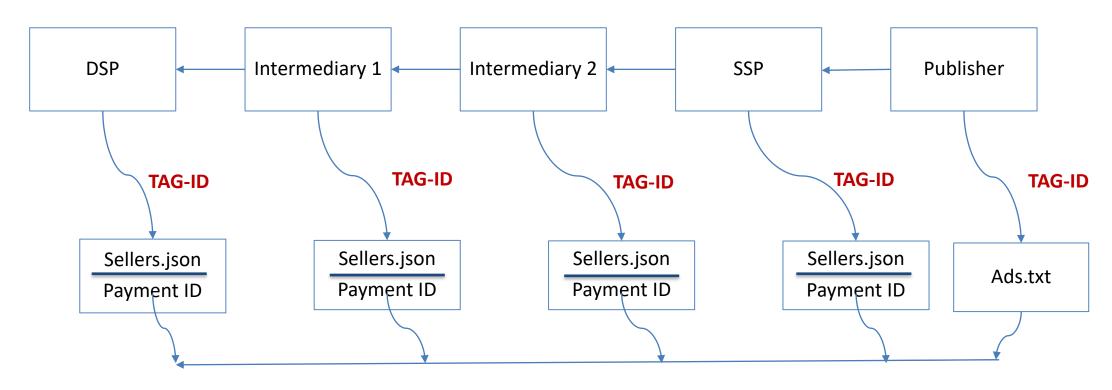
Before Brands and Agencies buy, they look up partners' TAG-ID status in the TAG Registry

TAG-ID Verification Tool			
google			
Search			
Google is currently enrolled in the Verified by TAG program and its TAG-ID status is active.			
This company has achieved the Certified Against Fraud seal. This company achieved the seal: through self-attestation by the company; meeting requirements in the categories of intermediary, direct seller and buyer. This seal applies to the company's global operations. The seal expires on March 1, 2020.			
This company has achieved the Certified Against Malware seal. • This company achieved the seal:			

Future State: Safe and Seamless Buys



Progress to Date



TAG-ID passed through Supply Chain

Progress to Date

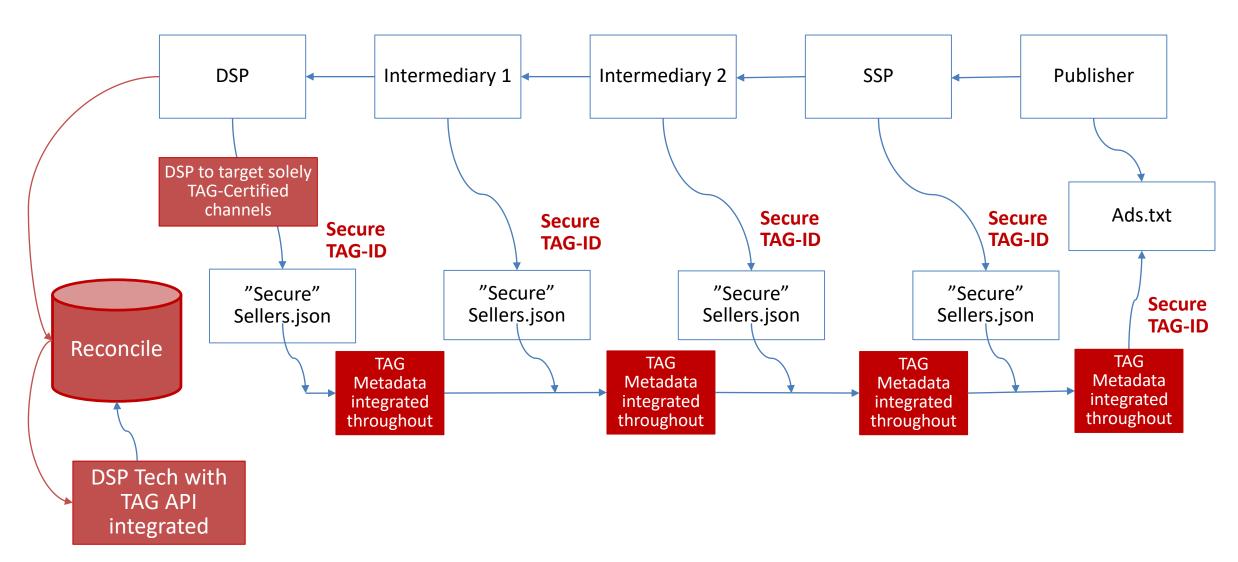
Knowledge:

- TAG-ID with meta-data
- TAG Registry

Systems/Tools:

- Ads.txt
- Sellers.json
- Supply Chain Object
- Payment ID
- Ads.cert

Work in Progress



Work in Progress

- TAG-ID transparency in DSP
- TAG Registry API with enhanced security
- Continued work on security of transactions beyond bid requests
- Additional metadata associated with TAG-ID
 - Domain names
 - Additional identifiers (e.g. CBA IDs)
 - Malware scanning

Building a Threat-Sharing Culture in the Digital Ad Industry



THE UNITED STATES ATTORNEY'S OFFICE

EASTERN DISTRICT of NEW YORK

FOR IMMEDIATE RELEASE

Tuesday, November 27, 2018

Two International Cybercriminal Rings Dismantled and Eight Defendants Indicted for Causing Tens of Millions of Dollars in Losses in Digital Advertising Fraud

Global Botnets Shut Down Following Arrests

A 13-count indictment was unsealed today in federal court in Brooklyn charging Aleksandr Zhukov, Boris Timokhin, Mikhail Andreev, Denis Avdeev, Dmitry Novikov, Sergey Ovsyannikov, Aleksandr Isaev and Yevgeniy Timchenko with criminal violations for their involvement in perpetrating widespread digital advertising fraud. The charges include wire fraud, computer intrusion, aggravated identity theft and money laundering. Ovsyannikov was arrested last month in Malaysia; Zhukov was arrested earlier this month in Bulgaria; and Timchenko was arrested earlier this month in Estonia, all pursuant to provisional arrest warrants issued at the request of the United States. They await extradition. The remaining defendants are at large.

What Should the Methbot / 3ve Takedown Teach Us?

Criminals go where the money is easy

- Success is possible
- Industry threat-sharing is vital



TAG is the Digital Ad Industry ISAO

In 2017, TAG received the DHS designation of Information Sharing and Analysis Organization (ISAO) for the Digital Ad Industry.

As an ISAO, TAG's role is to...

- Gather and analyze information related to cybersecurity risks and incidents in the industry;
- Communicate cybersecurity risks to the industry; and
- Partner with TAG members to mitigate those risks.

Companies can feel confident about threat-sharing through TAG because ISAO status affords liability protections to TAG and its Members.

TAG's Evolving Suite of Threat-Sharing Tools

TAG has facilitated cross-industry threat-sharing since its inception in 2015

2015	TAG Compliance Officer Network	Real-Time
2016	TAG Community Red Flag Briefings	As Needed
2017	Data Center IP List Pirate Mobile App List	Monthly Release Quarterly Release
2018	Malware Threat Sharing Hub (BETA)	Real-Time Sharing

It's Time to Change the Criminal Equation

Criminals will continue to target the digital advertising supply chain until its easier to target another industry

Mission Possible:

- Tighten Defenses Against Malware Threats
- Build a Threat-Sharing Culture in the Digital Ad Industry
- Put Criminals in Jail



Building a Threat-Sharing Culture

This is all new to the Digital Ad Industry...and that's okay

We can learn from industries with more experience

Trust building is key, so we need to start small

Building a Threat-Sharing Culture



PROGRAMMATIC

Trade Body to Roll Out 'TAG Threat Exchange' Following FBI Bot Takedown

Threat-indexing system combating malware redirects as it takes the fight to fraudsters



The TAG Threat Exchange

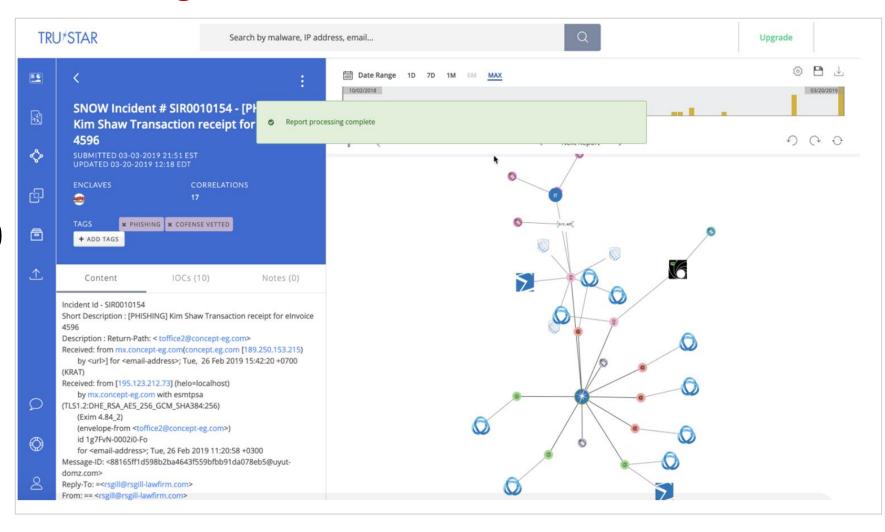
The TAG Threat Exchange enables the TAG Community to...

- Share and receive timely, actionable and highly-relevant threat intelligence sharing within the TAG trusted community
- Leverage a centralized intelligence platform to share intelligence within your company, with other TAG members, or with the TAG Community as a whole
- Enrich, enhance, and shorten investigations with high-fidelity intel

The TAG Threat Exchange is Powered by TRU*STAR

TruSTAR is an Intelligence Management Platform

already powering threat-sharing for the retail, IT and cyber industries, as well as 50 of the Fortune 500 companies.



Building a Threat-Sharing Culture

This is all new to the Digital Ad Industry...and that's okay

We can learn from industries with more experience

Trust building is key, so we need to start small

Supporting the Rise of the Brand Safety Profession



The Rise of the Brand Safety Officer

DIGIDAY

The new most important role at agencies: Brand-safety officer





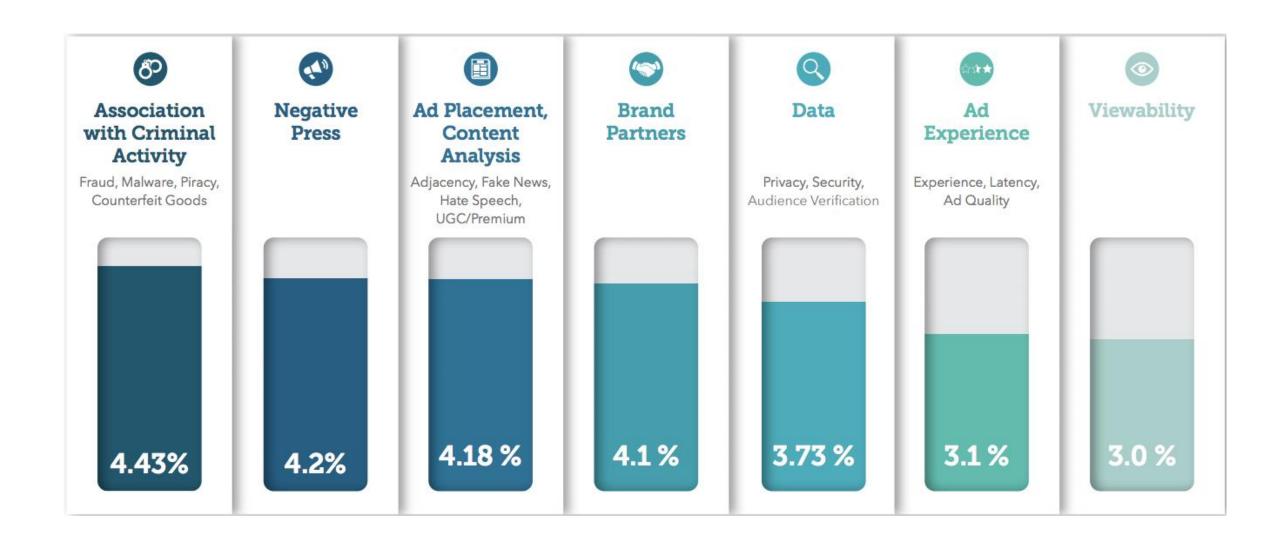


It's Time to Hire a Chief Brand Safety Officer

Bank of America creates brand safety officer role to help it 'clean up house'



Defining Brand Safety



The Role of the Brand Safety Institute

The Brand Safety Institute was founded to professionalize and advance the executive capacity needed at every company to protect their brands through research, accreditation, networking, and education.



By accrediting Brand Safety Officers and providing them with relevant information, expertise, and connections, the Brand Safety Institute will help a community of brand leaders safeguard both their own brands and the broader digital advertising supply chain.

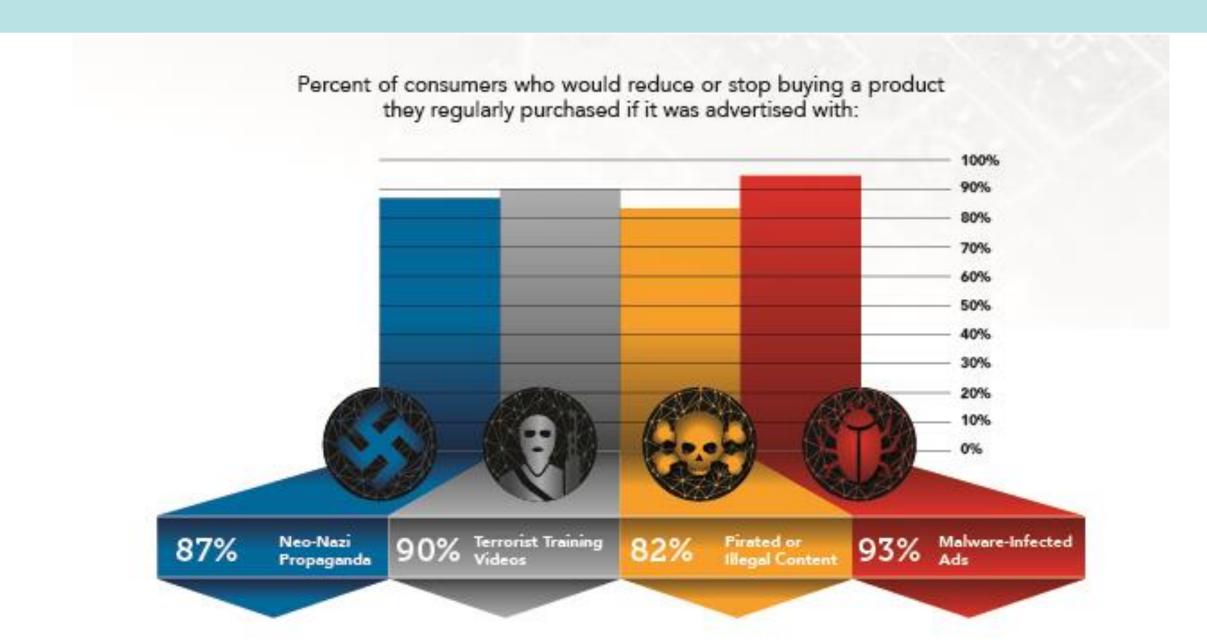
Brand Safety Officer Certification

- Introduction to Brand Safety
- Ad Fraud
- Ad Adjacency
- Knowing Your Partners
- Consumer Choice

- Ad-Supported Piracy
- Ad Quality and Experience
- Malware
- Verification
- Role of the Brand Safety Officer



2020: Year of the Consumer





Take Action

Take Action!

Expand your Engagement

- Shape the debate in TAG's Working Groups
- Get Certified...or go Platinum

Renew your TAG Membership

Consider a "Comprehensive" Approach

Get Ready to Recertify

Apply by January 31, 2020

And Now... Join Us for Happy Hour!





Thank You