

Brand Safety & Ad Fraud

Part 3 IAB Australia Digital Adops Conference

July 9, 2020



Agenda

- **About Tech Lab**
- **Brand Safety Specifications**
- **How to use Ad Fraud Specifications**

Our Mission

Sharing the cost,
sharing the benefits

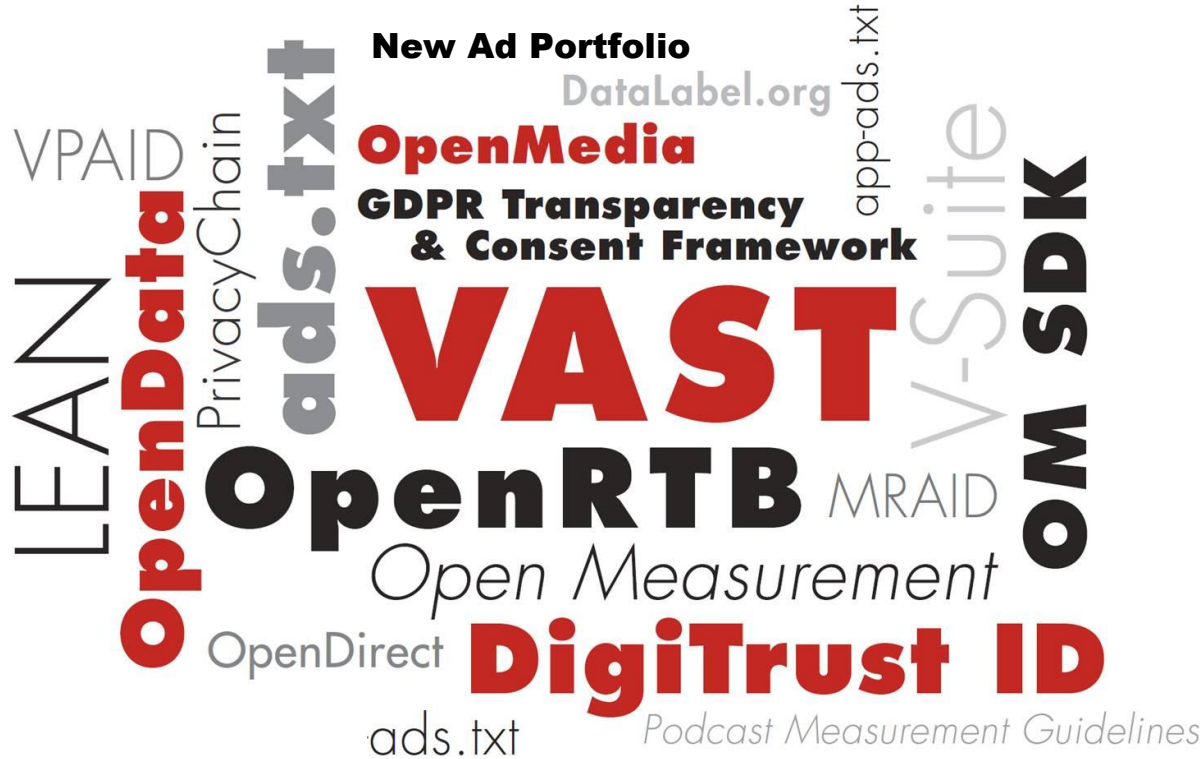
Member-driven,
member-developed

Engage a member **community** globally to **develop**
foundational technology and standards that enable
growth and **trust** in the digital media ecosystem.

Broad availability
& utility, by design

We live this – as a neutral, transparent,
open-source, non-profit org

What is Tech Lab? You may already know...



We Support Local/National IABs and Their Members, Globally



Market Development

(supporting sales/marketing)

- Education & certification
- Research
- Public policy
- Guidelines & business standards
- Events & networking



PROPRIETARY INNOVATION

- Product/Service development
- Operational innovation



- Packaging & pricing
- Competition



Technical Standards

(supporting product development)

- Standardized protocols & specifications
- Software & tools
- Compliance programs
- Supporting education & events

Our Top 4 for 2020 Reflects Urgent Industry Needs

1

Enable privacy-centric **consumer ID management** and smooth transition to "ID-less/cookie-less" environments

2

Provide **technical solution(s) for privacy** to support compliance with local laws

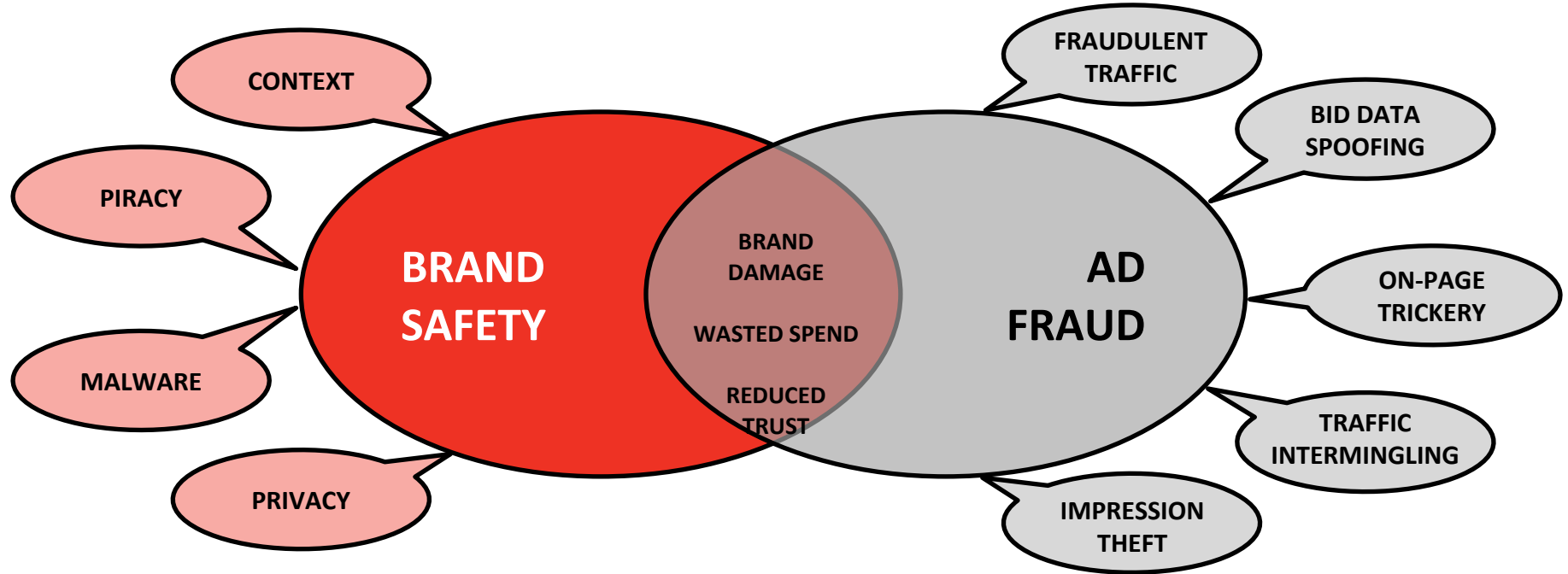
3

Promote **supply chain transparency** for brand safety, fraud, & data decisions

4

Improve **measurement & attribution accuracy & consistency**

Brand Safety vs. Ad Fraud



Tech Lab Brand Safety Standards

Taxonomies

Common language for referring to page/app content, products being advertised, and audiences



Describes what a site/app is about



Describes the product or service in an ad

Floor and Suitability

Recommendations around brand safety floor and suitability (in collaboration with the 4A's/APB)

Enable Context

Support within OpenRTB and VAST (macros) to enable page URL / app information to be transmitted for brand safety contextual analysis

OM & Ad Swapping

Ability to “swap” ads when the content is found to not be a good match for the original ad

User Experience

Good UX (both in content & in ads) is important for brand safety

Anti-Fraud Standards

Solutions to deploy in support of reducing Ad Fraud and building advertiser confidence that supply channels are brand safe

Content Taxonomy – 2.0 Brand Safety Features

2016 Mini Cooper Convertible First Drive

Sometimes, buying on a budget isn't so bad.




Image Credit: Brandon Turkus

Conventional gearhead wisdom says to go for the biggest, most powerful engine. For the first two generations of Mini Convertible, this was a no-brainer. You bought the Cooper S. But as Senior Editor Alex Kierstein argued in our [first drive of the Cooper S soft top](#), the less-powerful Cooper Convertible has an ace up its sleeve: a highly entertaining, three-cylinder, turbocharged engine. After some time behind the wheel, this two-time Mini Cooper S (hardtop) owner is ready to say the Cooper Convertible is the droptop Mini you should buy, full stop.

The Cooper's 1.5-liter turbocharged three-cylinder makes just 134 ponies and 162 pound-feet of torque. That's a 55-horsepower deficit and an extra 1.5 seconds, compared to the Cooper S. But who's docking a Mini Convertible with a stopwatch? The 8.2 seconds it takes to get to 60 mph is perfectly adequate, and the triple's power delivery is addictive.

Engine	Turbo 1.5L I3
Power	134 HP / 162 LB-FT
Transmission	6-Speed Automatic
0-60 Time	8.2 Seconds
Top Speed	128 MPH
Drivetrain	Front Wheel Drive
Curb Weight	2,905 LBS
Seating	2+2
Cargo	7.6 CU-FT (max)
MPG	27 City / 37 Hwy
Base Price	\$26,800
As Tested Price	\$27,150

Delineates between topic context or “aboutness” and additional attributes of content context such as content language, form factor, origin, media type, creating orthogonal vectors to describe such attributes

Taxonomy v2:

- Content **Categories:** Automotive/Convertible
- Content **Channel:** Editorial/Professional
- Content **Type:** News
- Content **Media Format:** Mixed
- Content **Language:** en
- Content **Source:** Professionally Produced

Content Taxonomy – 2.1 Brand Safety Features

- Introduction of “Special Category Data” Extension.
- Provides a specific signal to any entity using the taxonomy for audience segmentation.

Content Taxonomy Mapping							
IAB Tech Lab common license							
Content Taxonomy version 2.1 final release November 2019							
Relational ID System		Content Taxonomy v2 with Tiered Categories					
Unique ID	Parent	Name	Tier 1	Tier 2	Tier 3	Tier 4	
						Extensions	
278	274	Home Appliances	Home & Garden	Home Appliances			
279	274	Home Entertaining	Home & Garden	Home Entertaining			
280	274	Home Improvement	Home & Garden	Home Improvement			
281	274	Home Security	Home & Garden	Home Security			
282	274	Indoor Environmental Quality	Home & Garden	Indoor Environmental Quality			
283	274	Interior Decorating	Home & Garden	Interior Decorating			
284	274	Landscaping	Home & Garden	Landscaping			
285	274	Outdoor Decorating	Home & Garden	Outdoor Decorating			
286		Medical Health	Medical Health				
287	286	Diseases and Conditions	Medical Health	Diseases and Conditions			
288	287	Allergies	Medical Health	Diseases and Conditions	Allergies		
289	287	Ear, Nose and Throat Conditions	Medical Health	Diseases and Conditions	Ear, Nose and Throat Conditions		
290	287	Endocrine and Metabolic Diseases	Medical Health	Diseases and Conditions	Endocrine and Metabolic Diseases		
291	290	Hormonal Disorders	Medical Health	Diseases and Conditions	Endocrine and Metabolic Diseases	Hormonal Disorders	SCD
292	290	Menopause	Medical Health	Diseases and Conditions	Endocrine and Metabolic Diseases	Menopause	SCD
293	290	Thyroid Disorders	Medical Health	Diseases and Conditions	Endocrine and Metabolic Diseases	Thyroid Disorders	SCD
294	287	Eye and Vision Conditions	Medical Health	Diseases and Conditions	Eye and Vision Conditions		
295	287	Foot Health	Medical Health	Diseases and Conditions	Foot Health		
296	287	Heart and Cardiovascular Diseases	Medical Health	Diseases and Conditions	Heart and Cardiovascular Diseases		
297	287	Infectious Diseases	Medical Health	Diseases and Conditions	Infectious Diseases		
298	287	Injuries	Medical Health	Diseases and Conditions	Injuries		
299	287	First Aid	Medical Health	Diseases and Conditions	Injuries	First Aid	
300	287	Lung and Respiratory Health	Medical Health	Diseases and Conditions	Lung and Respiratory Health		
301	287	Mental Health	Medical Health	Diseases and Conditions	Mental Health		
302	287	Reproductive Health	Medical Health	Diseases and Conditions	Reproductive Health		
303	302	Birth Control	Medical Health	Diseases and Conditions	Reproductive Health	Birth Control	SCD
304	302	Infertility	Medical Health	Diseases and Conditions	Reproductive Health	Infertility	SCD
305	302	Pregnancy	Medical Health	Diseases and Conditions	Reproductive Health	Pregnancy	SCD
306	287	Blood Disorders	Medical Health	Diseases and Conditions	Blood Disorders		

Special Category Data: [classifications that] could create more significant risks to a person’s fundamental rights and freedoms [when associated with individual identifiers like cookies or IFAs]. For example, by putting them at risk of unlawful discrimination.

- Race
- Ethnic origin
- Politics
- Religion
- Trade union membership
- Genetics
- Biometrics
- Health
- Sex life
- Sexual orientation

Content Taxonomy – 2.2 (proposed) Brand Safety & Suitability Features

- Brand Safety “Floor” categories

Unique ID	Parent	Name	Tier 1	Tier 2	Tier 3
699		Brand Safety Floor			
700	699	Adult & Explicit Sexual Content	Brand Safety Floor		
701	699	Arms & Ammunition	Brand Safety Floor		
702	699	Crime & Harmful acts to individuals	Brand Safety Floor		
703	699	Death Injury, or Military Conflict	Brand Safety Floor		
704	699	Online piracy	Brand Safety Floor		
705	699	Hate speech & acts of aggression	Brand Safety Floor		
706	699	Obscenity and Profanity	Brand Safety Floor		
707	699	Illegal Drugs/Tobacco/Cigarettes	Brand Safety Floor		
708	699	Spam or Harmful Content	Brand Safety Floor		
709	699	Terrorism	Brand Safety Floor		
710	699	Sensitive Social Issues	Brand Safety Floor		
1000		Content Channel	Content Channel		
1001	1000	Editorial/Professional	Content Channel	Editorial/Professional	
1002	1000	Email	Content Channel	Email	

Name	Tier 1	Tier 2	Tier 3	Tier 4	Extension	APB Suitability categorization
231 Fitness and exercise	Healthy Living	Fitness and exercise				Low
232 Participant Sports	Healthy Living	Fitness and Exercise	Participant Sports			Low
233 Running and Jogging	Healthy Living	Fitness and Exercise	Running and Jogging			Low
234 Men's Health	Healthy Living	Men's Health				Low
235 Nutrition	Healthy Living	Nutrition				Low
236 Senior Health	Healthy Living	Senior Health				Low
237 Weight Loss	Healthy Living	Weight Loss			SCD	Low
238 Wellness	Healthy Living	Wellness				Low
239 Alternative Medicine	Healthy Living	Wellness	Alternative Medicine			Low
240 Herbs and Supplements	Healthy Living	Wellness	Alternative Medicine	Herbs and Supplements		Low
241 Holistic Health	Healthy Living	Wellness	Alternative Medicine	Holistic Health		Low
242 Physical Therapy	Healthy Living	Wellness	Physical Therapy			Low
243 Smoking Cessation	Healthy Living	Wellness	Smoking Cessation		SCD	Medium
244 Women's Health	Healthy Living	Women's Health				Low
245 Hobbies & Interests	Hobbies & Interests					Low
246 Antiquing and Antiques	Hobbies & Interests	Antiquing and Antiques				Low
247 Magic and Illusion	Hobbies & Interests	Magic and Illusion				Low
248 Model Toys	Hobbies & Interests	Model Toys				Low
249 Musical Instruments	Hobbies & Interests	Musical Instruments				Low
250 Paranormal Phenomena	Hobbies & Interests	Paranormal Phenomena				Low
251 Radio Control	Hobbies & Interests	Radio Control				Low
252 Sci-Fi and Fantasy	Hobbies & Interests	Sci-Fi and Fantasy				Low
253 Workshops and Classes	Hobbies & Interests	Workshops and Classes				Low

- Brand “suitability” / “risk tolerance” recommendations

Tech Lab Brand Safety Standards

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What should I do?

A few key takeaways

- As sellers
 - Use the content taxonomy to “tag” the content for each ad impression
 - Pass the url to the content so that brand safety vendors can support checks pre-bid and post bid
 - Once available, support OM ad swapping (and replace VPAID)
 - Focus on good ad experiences
- As buyers
 - Don't use stale (and long!) “exclusion lists” - use intelligent context and sentiment analysis tools
 - Decide on your risk tolerance (floor & suitability) and the specific types of content you want to avoid
 - Ask buying platforms / brand safety vendors to use the content taxonomy
 - Build lightweight / LEAN ads - and relevant ads!
- Anyone - get involved in ongoing working groups at IAB Tech Lab!
- Blog post - <https://iabtechlab.com/blog/brand-safety-in-the-age-of-covid-19/>

Tech Lab Anti-Ad-Fraud Standards

ads.txt / app-ads.txt

Lists authorized sellers (IDs) of a publisher's / app developer's ad inventory

SupplyChain Object

Lists all sellers by business domain & seller ID that are paid for selling an OpenRTB impression

sellers.json

Reveals seller identities based on publisher or seller IDs in:

- 1) OpenRTB Publisher object
- 2) ads.txt files
- 3) OpenRTB SupplyChain object

ads.cert

Validates that bid request contents are not manipulated as impressions pass among supply chain entities. (Cryptographically signs bid requests using public & private keys.)

How it all works together:

- **ads.txt/app-ads.txt** identifies who is authorized to sell inventory (but not who they are).
 - **SupplyChain** reveals all intermediaries involved with the payment flow...
 - ...and enables buyers to enforce **ads.txt** for all intermediaries.
 - **sellers.json** provides business names of the otherwise opaque IDs.

Ad Fraud - Counterfeit Inventory

- Ads.txt/Sellers.json/Supply Chain Object were not meant to solve all ad fraud
 - Focused most on the problem of counterfeit inventory, industry was seeing many websites had RTB availability in excess of what was explainable
 - To address this, we focused on transparency within the supply chain so that sellers could publicly declare their selling partners and buyers could trace inventory back to the source

Goal: Know who is authorized to sell inventory for domain or app

Standards

Text file posted by publisher/developer listing entities that are authorized to (re)sell their inventory.

ads.txt: for browser-based inventory

- Launched June 2017
- Broadly adopted

app-ads.txt: for mobile/CTV/etc. app inventory

- Launched Jan 2019
- Adoption growing for mobile apps (~70% of programmatic traffic), CTV - early days, but starting to see interest

So you've heard about ads.txt/app-ads.txt?



Ads.txt file for washingtonpost.com:

```
indexexchange.com, 183960, DIRECT
adtech.com, 10316, DIRECT
aolcloud.net, 10316, DIRECT
appnexus.com, 7466, DIRECT
google.com, pub-3980300725513096, DIRECT
c.amazon-adsystem.com, 3041, DIRECT
openx.com, 537108359, DIRECT
openx.com, 539044014, DIRECT
openx.com, 537154106, DIRECT
teads.tv, 5856, DIRECT, 15a9c44f6d26cbe1
teads.tv, 8231, DIRECT, 15a9c44f6d26cbe1
google.com, pub-1995032544933848, RESELLER
liveintent.com, 386, DIRECT
facebook.com, 165530923902113, DIRECT
google.com, pub-3746578658400510, RESELLER, f08c47fec0942fa0
indexexchange.com, 185292, RESELLER
trustx.org, 37, DIRECT
indexexchange.com, 184966, DIRECT
rubiconproject.com, 17302, DIRECT, 0bfd66d529a55807
outbrain.com, 01265510c0bdff9f85a6b7aa919c64fede, DIRECT
smaato.com, 1100038044, DIRECT
pubmatic.com, 157050, DIRECT, 5d62403b186f2ace
outbrain.com, 00245c3cb03f074e28909d6ad2320ffd17, DIRECT
outbrain.com, 00245c3cb03f074e28909d6ad2320ffd17, RESELLER
tremorhub.com, q017o-78mlk, RESELLER, 1a4e959alb50034a
adtech.com, 12061, DIRECT
```

- Indicates that Washington Post likely has a contract with IndexExchange.
- In Bid Requests from IndexExchange a buyer should be able to validate account number 183960 for Washington Post Inventory

Sellers.json

Seller Object (required fields)

seller_id	This is the same ID that appears in an ads.txt file and in the SupplyChain.nodes array sid property. In most cases will also appear in the Publisher.Id property of an OpenRTB request.
seller_type	An enumeration of the type of account, either PUBLISHER, INTERMEDIARY, or BOTH. A value of "PUBLISHER" indicates that the inventory sold through this account is on a site, app, or other medium owned by the named entity and the advertising system pays them directly. A value of "INTERMEDIARY" indicates that the inventory sold through this account is not owned by the named entity or the advertising system does not pay them directly. 'BOTH' indicates that both types of inventory are transacted by this seller.
name	The name of the company (the legal entity) that is paid for inventory that is transacted under the given seller_id. Can be omitted only when is_confidential is set to 1.
domain	The business domain name of the company (the legal entity) that is paid for inventory that is transacted under the given seller_id. When the seller_type property is set to INTERMEDIARY or BOTH, this should be the root domain name of the seller's Sellers.json file. Can be omitted when is_confidential is set to 1 or when the seller doesn't have a web presence.

There are a handful of optional fields within the specification to account for confidential and "passthrough" relationships

What can you check with Sellers.json?

- *Cross reference that Index says they have the same type of relationship with Washington Post (seller_type: Publisher indicates that the inventory sold through this account is on the site owned by the named entity and the advertising system pays them directly)*
- *Confirm seller_id : 183960 matches what the publisher posted*

```
{  
  "seller_id": "183960",  
  "name": "The Washington Post",  
  "domain": "washingtonpost.com",  
  "seller_type": "Publisher"  
},
```

```
← → ↻ cdn.indexexchange.com/sellers.json  
Apps IAB Tech Lab - Th... IAB: Tools Portal My Drive - Google... ExpenseWatch | Si...  
{  
  "contact_email": "sellers.json@indexexchange.com",  
  "contact_address": "Index Exchange Inc., 468 King St W, Toronto, ON M5V 1L8",  
  "version": "1.0",  
  "identifiers": [  
    {  
      "Name": "TAG-ID",  
      "Value": "50b1c356f2c5c8fc"  
    },  
    {  
      "Name": "DUNS",  
      "Value": "06-020-3535"  
    },  
    {  
      "Name": "DUNS",  
      "Value": "20-514-1638"  
    }  
  ],  
  "sellers": [  
    {  
      "seller_id": "182496",  
      "name": "CafeMedia",  
      "domain": "cafemedias.com",  
      "seller_type": "Both"  
    },  
    {  
      "seller_id": "183728",  
      "name": "CBS Interactive Inc.",  
      "domain": "cbsinteractive.com",  
      "seller_type": "Publisher"  
    },  
    {  
      "seller_id": "185796",  
      "name": "NBC Universal, Inc.",  
      "domain": "nbcuniversal.com",  
      "seller_type": "Publisher"  
    }  
  ],  
}
```

Supply Chain Object

```
"bidrequest" : {
  "id": "BidRequest1",
  "app": {
    "publisher": {
      "id": "183960"
    }
  }
}
"source": {
  "ext": {
    "schain": {
      "ver": "1.0",
      "complete": 1,
      "nodes": [
        {
          "asi": "indexexchange.com",
          "sid": "183960",
          "rid": "BidRequest1",
          "hp": 1
        }
      ]
    }
  }
}
```

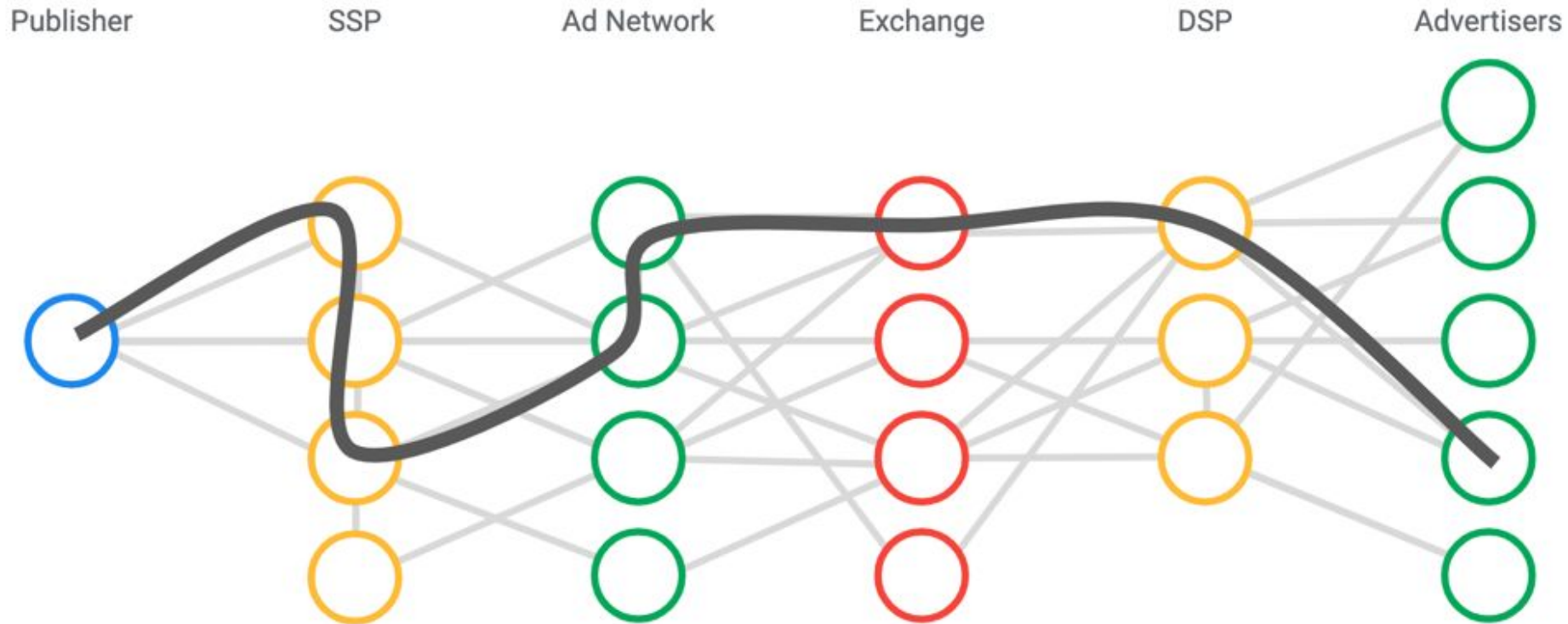
The SupplyChain object is composed primarily of a set of nodes where each node represents a specific entity that participates in the transacting of inventory. The entire chain of nodes from beginning to end represents all entities who are involved in the direct flow of payment for inventory.

An example using the previous IndexExchange/WashingtonPost example would look like this

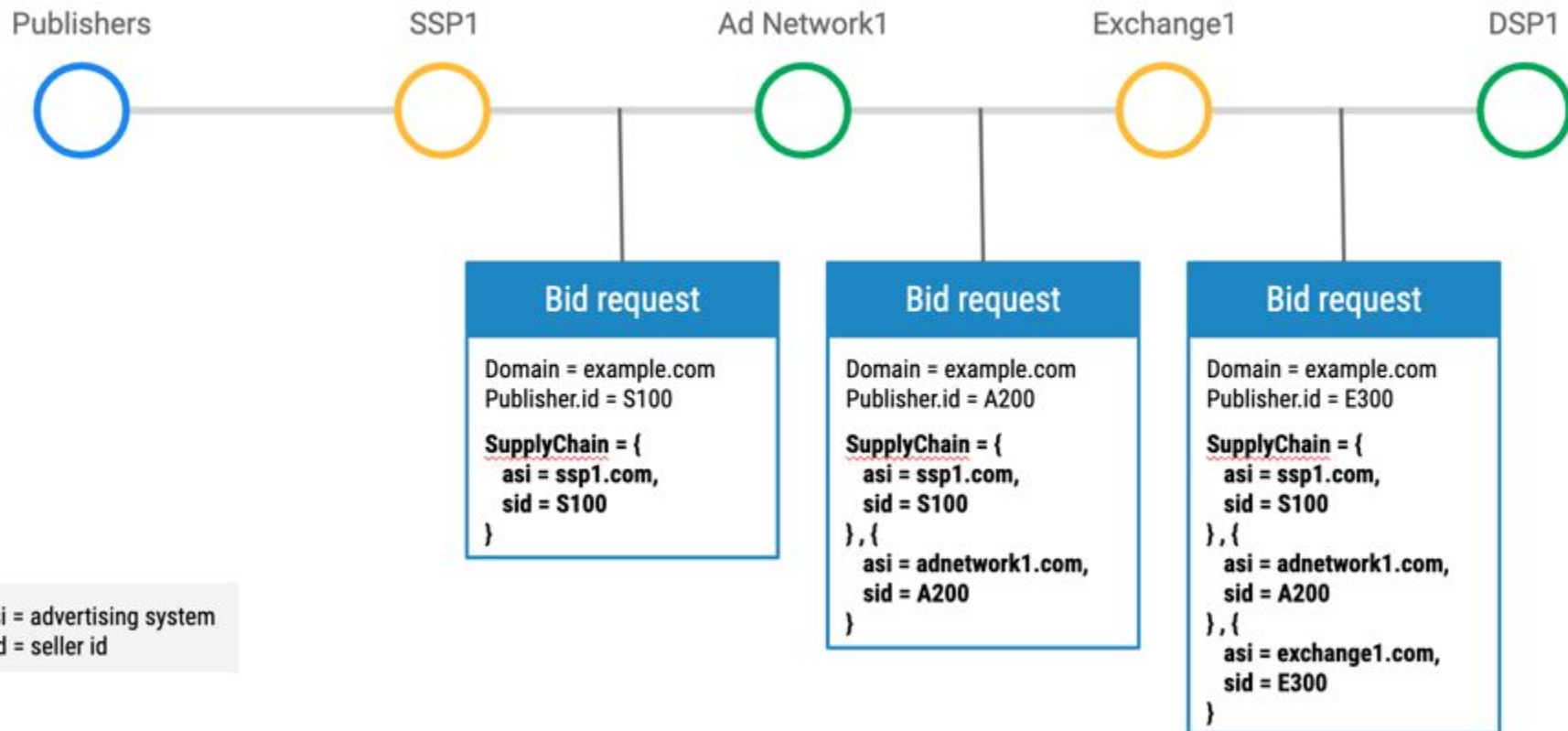
Supply Simple Scenario



Not So Simple



Supply Chain



asi = advertising system
sid = seller id

What should I do?

A few key takeaways

- As sellers;
 - keep ads.txt/sellers.json files up to date
 - include only known partners
- As buyers;
 - ask for ads.txt verified sellers
 - ask buying platforms if they've implemented any checks for sellers.json or supply chain object
- Anyone - get involved in ongoing developments, working group currently focused on ads.txt for CTV environment