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

- Sharing the cost, sharing the benefits
- Member-driven, member-developed
- Broad availability & utility, by design
- We live this – as a neutral, transparent, open-source, non-profit org
Technical Standards We All Rely on Every Day

Tech Lab standards are similar...but for digital media.

Standards & compliance help our industry:
- Reduce engineering/product effort & costs
- Improve interoperability & quality
- Increase speed to market
- Fuel market innovation
  - ...and grow!
Ever Heard of These? They Are from IAB Tech Lab ...
# Tech Lab Themes & Standards Portfolio

<table>
<thead>
<tr>
<th>IDENTITY, DATA, &amp; PRIVACY</th>
<th>BRAND SAFETY &amp; AD FRAUD</th>
<th>AD EXPERIENCES &amp; MEASUREMENT</th>
<th>PROGRAMMATIC EFFECTIVENESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DigiTrust ID service &amp; consent management</td>
<td>ads.txt / app-ads.txt (fraud)</td>
<td>VAST (video ad delivery)</td>
<td>OpenRTB (programmatic real-time)</td>
</tr>
<tr>
<td>OTT IFA Guidelines</td>
<td>sellers.json (fraud)</td>
<td>SIMID (video ad interactivity)</td>
<td>OpenDirect (programmatic guaranteed)</td>
</tr>
<tr>
<td>Data Label (&quot;food nutrition label&quot; for data)</td>
<td>SupplyChain object (transparency)</td>
<td>MRAID (mobile ads)</td>
<td>Ad Management API (creative approval)</td>
</tr>
<tr>
<td>Audience Taxonomy</td>
<td>ads.cert (fraud)</td>
<td>New Ad Portfolio</td>
<td>Blockchain education</td>
</tr>
<tr>
<td>OpenData (campaign data)</td>
<td>Content Taxonomy</td>
<td>Dynamic Content Ads</td>
<td></td>
</tr>
<tr>
<td><strong>IAB Europe Transparency &amp; Consent Framework</strong></td>
<td>Ad Product Taxonomy</td>
<td>SafeFrames (ad “container”)</td>
<td></td>
</tr>
<tr>
<td><strong>CCPA/Other Frameworks</strong></td>
<td></td>
<td><strong>Open Measurement</strong> (viewability+)</td>
<td></td>
</tr>
<tr>
<td>PrivacyChain (consent on blockchain)</td>
<td></td>
<td></td>
<td>Podcast Measurement Guidelines</td>
</tr>
</tbody>
</table>

*Bold = Top priorities for adoption in 2019*
IAB and IAB Tech Lab efforts to date

- Public policy
  - Advocacy and Testimony...
- Education & preparedness
  - Summer/Fall webinar series...
- CCPA Compliance Framework development
  - Policy
  - Technical

To Learn More: iab.com/ccpa
CCPA / US Privacy Working Group Collaboration

3. Technical Solutions
   Technical Working Group:
   Proposed tech solutions to address policy requirements

1. Legal Interpretation
   What do businesses need to do to comply with CCPA?

2. Policy Requirements
   Industry-standard policies that Tech Lab can build towards

CCPA Solutions Development Cycle
Policy Context, IAB
IAB Policy Context

Policy needs include;
- Policy requirements for explicit notice, opportunity to opt out of sale
- Programmatic paradox

Solution components
- Framework policies
- Limited Service Provider Agreement

Technical specification overview
CCPA Explicit Notice & Opt-Out Signals: RTB Example

Who does what?

Pub creates US Privacy (USP) String

SSP reads USP String

Downstream parties read & respect USP string

Consumer: Have I seen explicit notice? Have I opted out of sale of data?

website.com

SSP

Ad Exchange

DSP

Advertiser Ad Server

Viewability Provider

DMP

1st-party cookie or mobile app local storage

SSP access using USP API

Downstream parties can access USP string via 1) RTB Flags, 2) USP API, or 3) URL Passing macros

Via what technical mechanism?
There are three technical specifications that were shared in drafts for public comment:

Note, v1.0 of all IAB Tech Lab U.S. Privacy technical specifications serve only CCPA compliance.

- **IAB Tech Lab U.S. Privacy String**: Supports data format for information about disclosures made and choices selected by a user regarding consumer data privacy.

- **IAB Tech Lab U.S. Privacy User Signal API**: Specifies a lightweight API that may be implemented by digital properties for web and mobile in-app to represent U.S. privacy signals.

- **IAB Tech Lab U.S. Privacy OpenRTB Extension**: Outlines a mechanism to support communication of U.S. privacy signals within the scope of CCPA compliance.

To learn more: iabtechlab.com/ccpa
U.S. Privacy String

This current version of the U.S. Privacy String only supports CCPA Compliance.

The U.S. Privacy String contains the following information:

1. General metadata
2. Explicit Notice/Opportunity to Opt Out
3. Opt-Out of Sale (consumer signal)
4. Agreement terms apply

Where is this stored?

- Publisher 1st party cookie, mobile in-app local storage

<table>
<thead>
<tr>
<th>String Component</th>
<th>Expected Values</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification Version</td>
<td>Number (1 char in string)</td>
<td>The version of this string specification used to encode the string</td>
</tr>
<tr>
<td>Explicit Notice/Opportunity to Opt Out</td>
<td>ENUM (N = No, Y = Yes, - = Not Applicable)</td>
<td>Has explicit notice been provided as required by 1798.115(c) of the CCPA and the opportunity to opt out of the sale of their data pursuant to 1798.120 and 1798.135 of the CCPA</td>
</tr>
<tr>
<td>Opt-Out Sale</td>
<td>ENUM (N = No, Y = Yes, - = Not Applicable)</td>
<td>Has user opted-out of the sale of his or personal information pursuant to 1798.120 and 1798.135</td>
</tr>
<tr>
<td>LSPACT</td>
<td>ENUM (N = No, Y = Yes, - = Not Applicable)</td>
<td>Publisher is a signatory to the IAB Limited Service Provider Agreement (LSPA) and the publisher declares that the transaction is covered as a “Covered Opt Out Transaction” or a “Non Opt Out Transaction” as those terms are defined in the Agreement</td>
</tr>
</tbody>
</table>
User Signal Mechanism:
USP API
Simple JavaScript API, named __uspapi() that reads the U.S. Privacy string and returns it in readable form. Currently applies for CCPA only.

__uspapi(command, version, callback)

command (string): command to be executed (currently only “getuspdata” is supported)
version (int): version number (currently 1)
callback (function): callback taking 2 params (callback(usp object, success))

The callback function returns the usp object, containing the version and U.S. Privacy string and sets success=true if the objects was successfully retrieved.

It will return null and success=false if an invalid or erroneous parameter was given or the string couldn’t be retrieved.

Example:

__uspapi("getuspdata", 1, function(uspobj, success) { console.log('cmp response: ', uspobj, ' success: ', success) } )
cmp response: {version: 1, uspString: "1YNY"} success: true
U.S. Privacy API

Other things worth noting:

**U.S. Privacy string URL param**

<table>
<thead>
<tr>
<th>URL parameter</th>
<th>Possible values</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>us隐私</td>
<td>string</td>
<td>N/A</td>
<td>URL-encoded U.S. Privacy string format as specified above.</td>
</tr>
</tbody>
</table>

**RTB Extension Object: us_privacy attribute**

<table>
<thead>
<tr>
<th>Field</th>
<th>Scope</th>
<th>Type</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>usPrivacy</td>
<td>optional</td>
<td>string</td>
<td>-</td>
<td>Must follow the U.S. Privacy string format.</td>
</tr>
</tbody>
</table>

Source code is in github: [https://github.com/InteractiveAdvertisingBureau/CCPA-reference-code](https://github.com/InteractiveAdvertisingBureau/CCPA-reference-code)
Reference API implementation along with an integration sample
Next steps & resources
Expected Next Steps

Public comment period is closed
   Final specifications coming very soon!
      Additional resources; publisher reference code

Framework and tech specs iteration expected
   End of year and possibly again in 2020
      IAB Tech Lab CCPA/US Privacy Technical Working Group

Evolution based on;
   Regulatory landscapes
   New feature requests/policy requirements
Final v1.0 Specifications

The November 18, 2019 Final v1.0 rollout plan includes:

• V1.0 of the tech specs for the IAB CCPA Compliance Framework are released today, November 18, and available for immediate adoption by publishers and tech companies

• An upcoming minor iteration of the tech specs - including the consumer data deletion request feature and other minor additions - will complement the final release of the Framework and Limited Service Provider Agreement

• As needed, we will continue to iterate the tech specs based on new needs and potential adjustments to the CCPA regulations - as the California Attorney General may make some changes after the public comment phase ends on December 6 and once the law takes effect on January 1, 2020
More Resources from the IAB Privacy and Compliance Unit

Policy Information: https://iab.com/ccpa
and https://www.iab.com/guidelines/ccpa-framework/

IAB Tech Lab CCPA/US Privacy Technical Working Group
https://iabtechlab.com/working-groups/ccpa-us-privacy-technical-working-group/