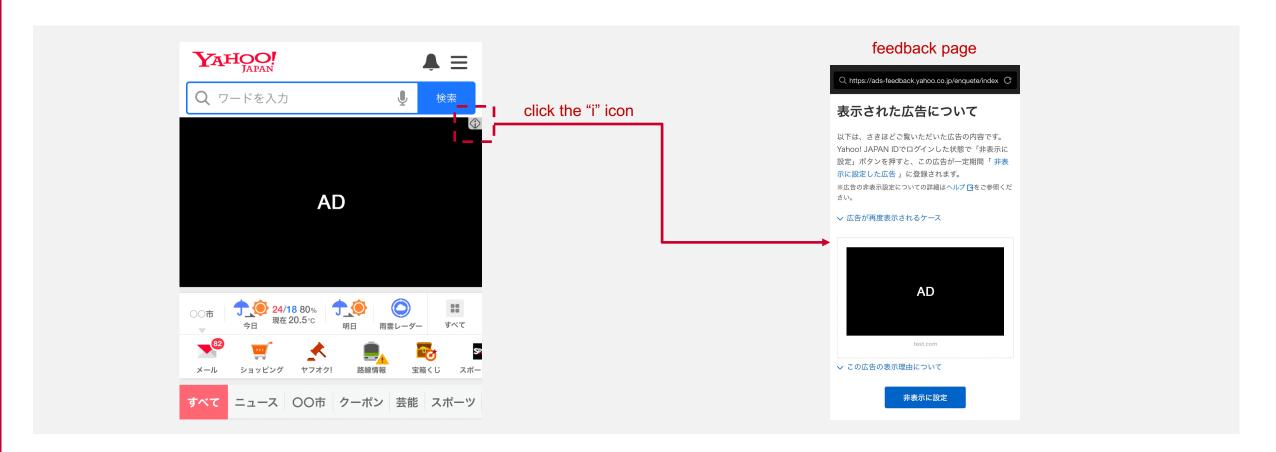


Proposal on FLEDGE opt-out by user preference

2023 / 5

The problem with ad opt-out using FLEDGE

In FLEDGE serving, it is not possible to use cookie data or access user's ad preferences in ad serving. Our existing user's opt-out experience ("i" icon in Yahoo! JAPAN Ads) does not work.



Available opt-out control in current API

Use `leaveAdInterestGroup()` to remove Interest Group (IG) from the browser. This can be triggered by user inside Fenced Frame.



there are several problems with leaveAdInterestGroup()

The problems with `leaveAdInterestGroup()`

- 1. User can rejoin the IG they opted out from. By visiting the advertisers site again, they will be unexpectedly opting into the same IG
 - using `leaveAdInterestGroup()` is a temporary removal
- 2. If the same ad creative is linked to multiple IG, by opting out of one IG will still show the ad from the other IG.
 - The current opt-out control only done by IG and not controllable beyond that.(ex. advertiser_domain, creative_category)
 - ex) Let's say we have 2 interest groups, "Brand A red shoes" or "Brand A blue shoes". When you want to opt-out from all Brand A ads, but after opting out from "Brand A red shoes", you will still see the ads with "Brand A blue shoes".
- 3. When serving via both FLEDGE ads and non-FLEDGE ads, by opting out from FLEDGE IG will not be shared to non-FLEDGE serving
 - Unable to share the user's opt-out preference between FLEDGE and non-FLEDGE
- 4. Unable to cover the existing opt-out controls
 - It's not possible to opt-out on a setting page on an advertiser's website.

The problems with `leaveAdInterestGroup()`

If the opt-out control between FLEDGE and non-FLEDGE are different, it will lead a user's confusion.

It is hard for users to distinguish between FLEDGE and non-FLEDGE creatives. Providing two different opt-out options will require careful consideration in educating users.

Proposal to handle ads opt-out in FLEDGE

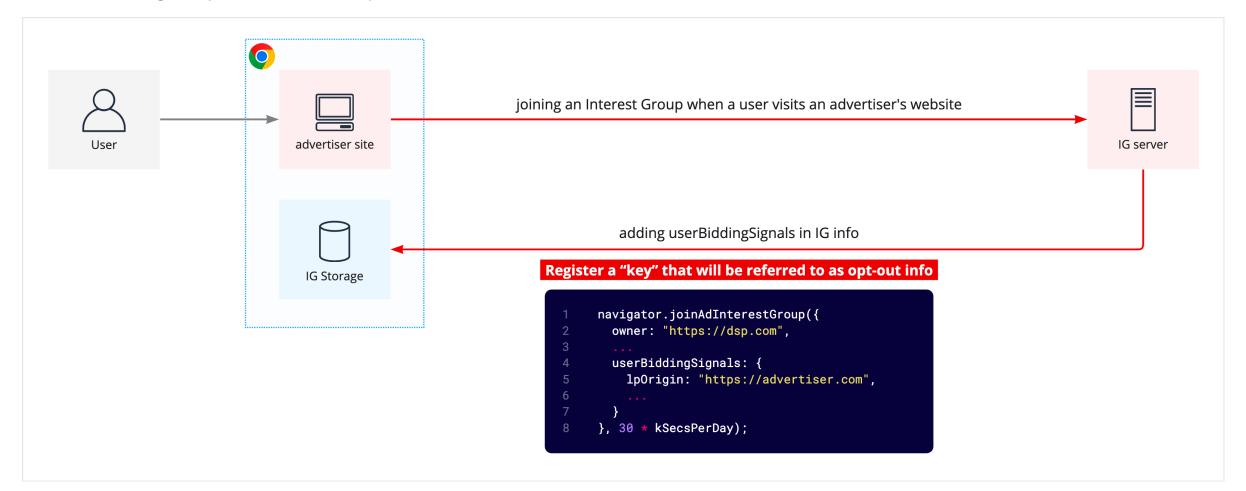
Two proposals to achieve the opt-out control in FLEDGE

- 1. New API to add/remove the opt-out data
- 2. Browser storage to save the opt-out data, which is only accessible from worklet

Expected flow / Adding IG from adv site

register a key info for opt-out in `userBiddingSignals`

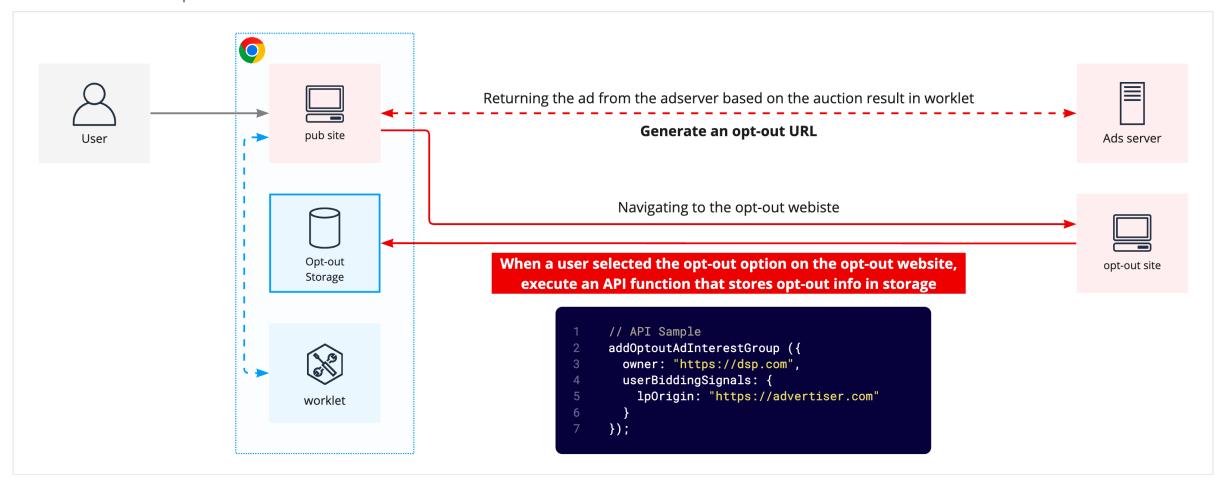
* No API change expected in this step



Expected flow / User initiating the opt-out from publisher's site

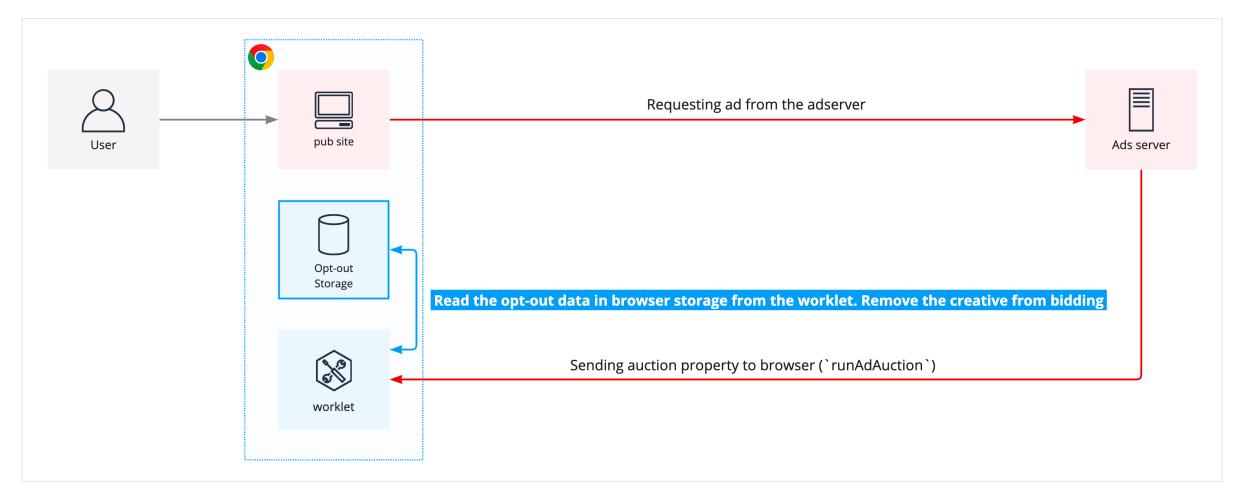
Run an API that stores the opt-out info in dedicated storage. This will be executed when user initiated opt-out action on publisher's site

* Customize the opt-out URL linked from the creative



Expected flow / applying filters from opt-out storage (revisiting publisher site)

In any future auction, the worklet will access to the opt-out storage to filter out the registered creative



API

1. Register opt-out info

2. Delete opt-out info

```
removeOptoutAdInterestGroup ({
   owner: "https://dsp.yahoo.co.jp",
   userBiddingSignals: {
        lpOrigin: "https://advertiser.com"
    }
}
```

- `owner` field is required
- Add the key info of opt-out in `userBiddingSignals`
- API can only do registration and removal. The opt-out data is only accessible from a browser worklet

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Problems solved with this API

- 1. Opt-out info will be stored in a browser storage, so even if the user joins the IG again, it will be filtered out at the auction step. Not a temporary opt-out like using `leaveAdInterestGroup`
- 2. The key for opt-out data is controlled by adtech's side. Not only by IG, but can also expand to other units like advertiser_domain, or creative_category, etc.
- 3. The API is externally executable so it is possible to run the opt-out after the page navigation or link with non-FLEDGE opt-out info.
- 4. Can provide opt-in functionality by allowing both registration and deletion
- 5. Minimize user confusion by providing consistent opt-out UX

Unsolved problem

- It is possible to register / delete any domain as an owner for this API
 - -> This can be solved by limiting the API when only "owner's eTLD+1" and "API execution eTLD+1" are the same

Privacy considerations

- Opt-out registration and deletion are only possible via API. Reading the opt-out data is possible only from the worklet.
 - -> Minimize the risk for being used for fingerprinting

