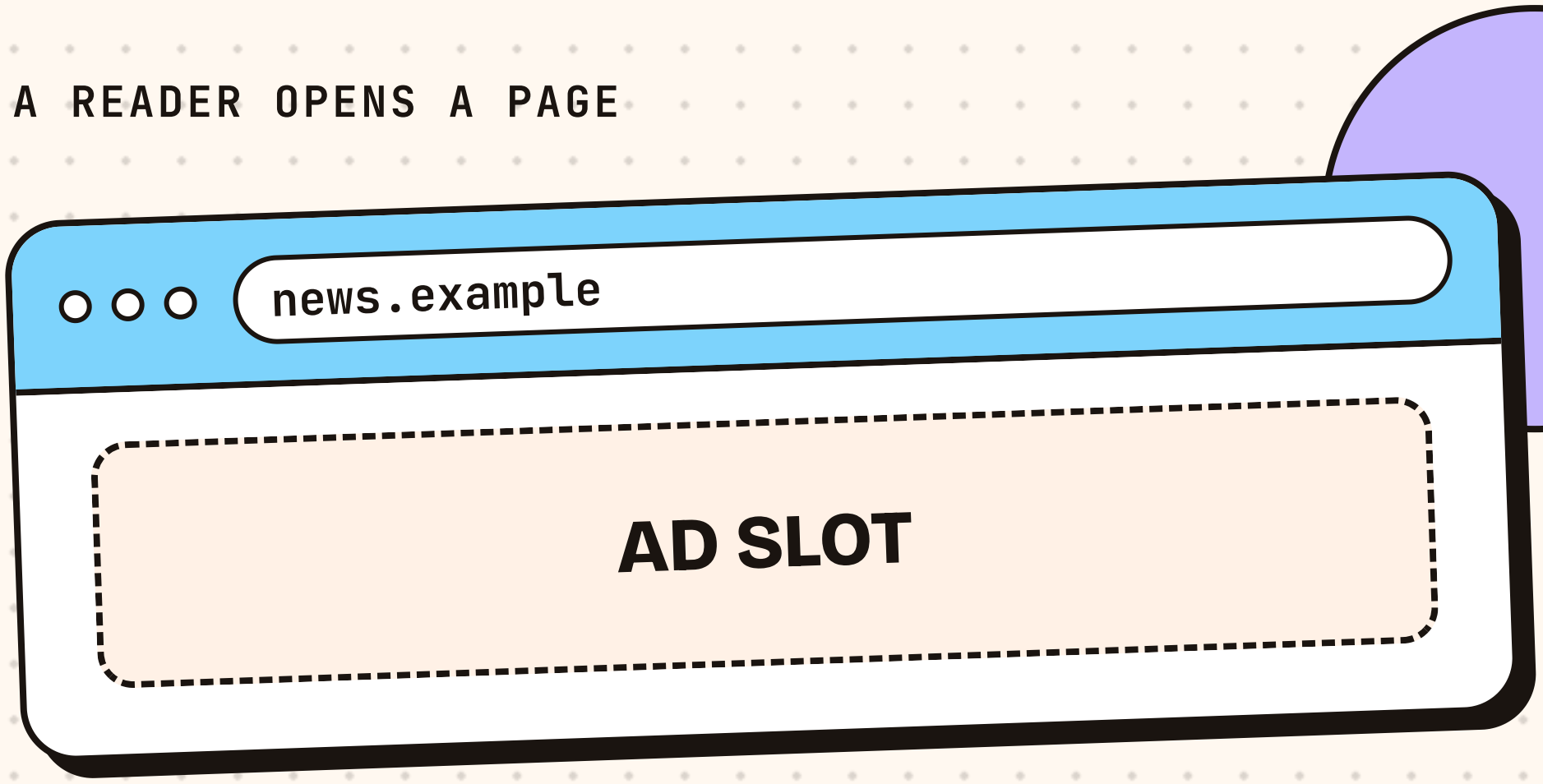
Adtech lessons · S3 · Ep 1

Prebid's auction, step by step.

What runs in your reader's browser before your ad server picks an ad.

Swipe →

A READER OPENS A PAGE



An auction runs before any ad.

Here's what Prebid.js does in about a second, in five steps.

The term

Prebid.js

Free, open-source code that **collects bids in the browser**.

Your ad server still makes **the final call.**

Steps 1–2 · Pause, then read

The page tells Google Ad Manager to **wait**. Prebid reads your ad units.

1

Ad Manager

Paused, waiting for bids

2

Ad unit · 300×250

Three bidders: A, B and C

Step 3 · Ask all at once

One timer: 1000 ms.

Late bids are **left out**.

Bidder A		$2.10
Bidder B		$1.85
~~Bidder C~~		~~late~~

Step 4 · Label

Prebid tags the slot with labels called **key-values**.

```
hb_pb: "2.10"
hb_bidder: "bidderA"
hb_adid: "7f3a…"
```

The rounded price, the bidder, and an ad ID.

Step 5 · Decide

Ad Manager makes the final call.

If $2.10 beats your other demand, **Prebid's ad renders**.

Your check today

Install Professor Prebid.

Prebid's open-source Chrome extension.

- [x] Which bidders answer?
- [x] How fast do they answer?

Recap

Every Prebid auction:

1 Pause

2 Read

3 Ask

4 Label

5 Decide

NEXT · EP 2

Bidder adapters, and why your Prebid build matters

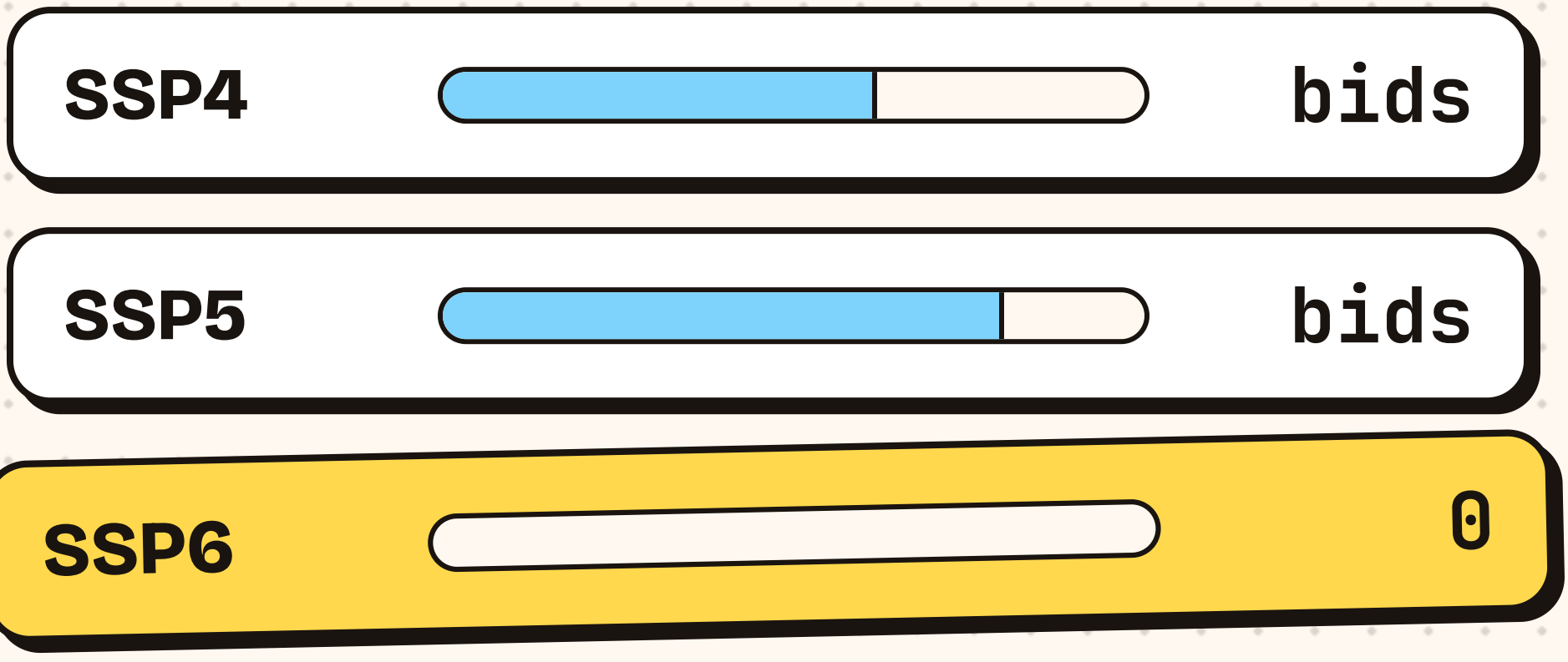
Watch the 60-second video at
blog.rediads.com/learn

Adtech lessons · S3 · Ep 2

New bidder. Zero bids.

Why a newly signed SSP can stay silent, and how your Prebid build hides it.

Swipe →



You added a bidder. It never bid once.

Here's why.

The term

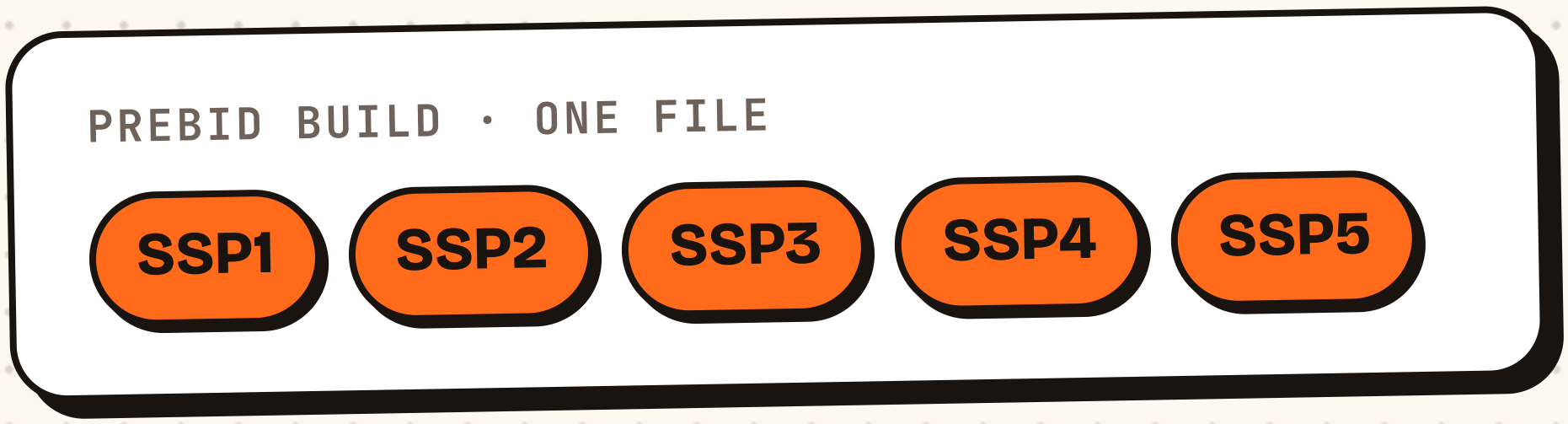
Bidder adapter

A plug-in that lets Prebid.js **talk to one SSP**.

One SSP, **one adapter.**

Your build

Prebid lists 300+ demand partners. Your site loads only the adapters someone picked.



The miss

A sixth SSP joins the page setup. The build still holds five.

PAGE SETUP	BUILD FILE
SSP1	SSP1 ✓
SSP2	SSP2 ✓
SSP3	SSP3 ✓
SSP4	SSP4 ✓
SSP5	SSP5 ✓
SSP6	no SSP6

No alert

Not in the build? It never bids.

```
browser console
ERROR: Trying to make a request for bidder
that does not exist: ssp6
```

No bids, no revenue line, no alert.

Builds age

Prebid only supports its newest major version.



Prebid 10
Jul 2025

Prebid 11
Mar 2026

Upgrade at least every 6 months

Your check today

Ask for two things.

- [x] Your Prebid version
- [x] Your adapter list

Match it to **every bidder contract**.

Recap

Not in the build? Not in the auction.

Adapter

Build

Version

Contracts

NEXT · EP 3

Price granularity: the buckets that decide what you're paid

Watch the 60-second video at
blog.rediads.com/learn

RediAds Follow for Ep 3

Adtech lessons · S3 · Ep 3

A $2.87 bid can arrive as $2.50.

Price granularity: the buckets that decide what you're paid.

Swipe →

RediAds blog.rediads.com/learn

ONE PREBID BID · BEFORE AD MANAGER SEES IT



Rounded down. Always.

And that rounding can lose you the auction.

The term

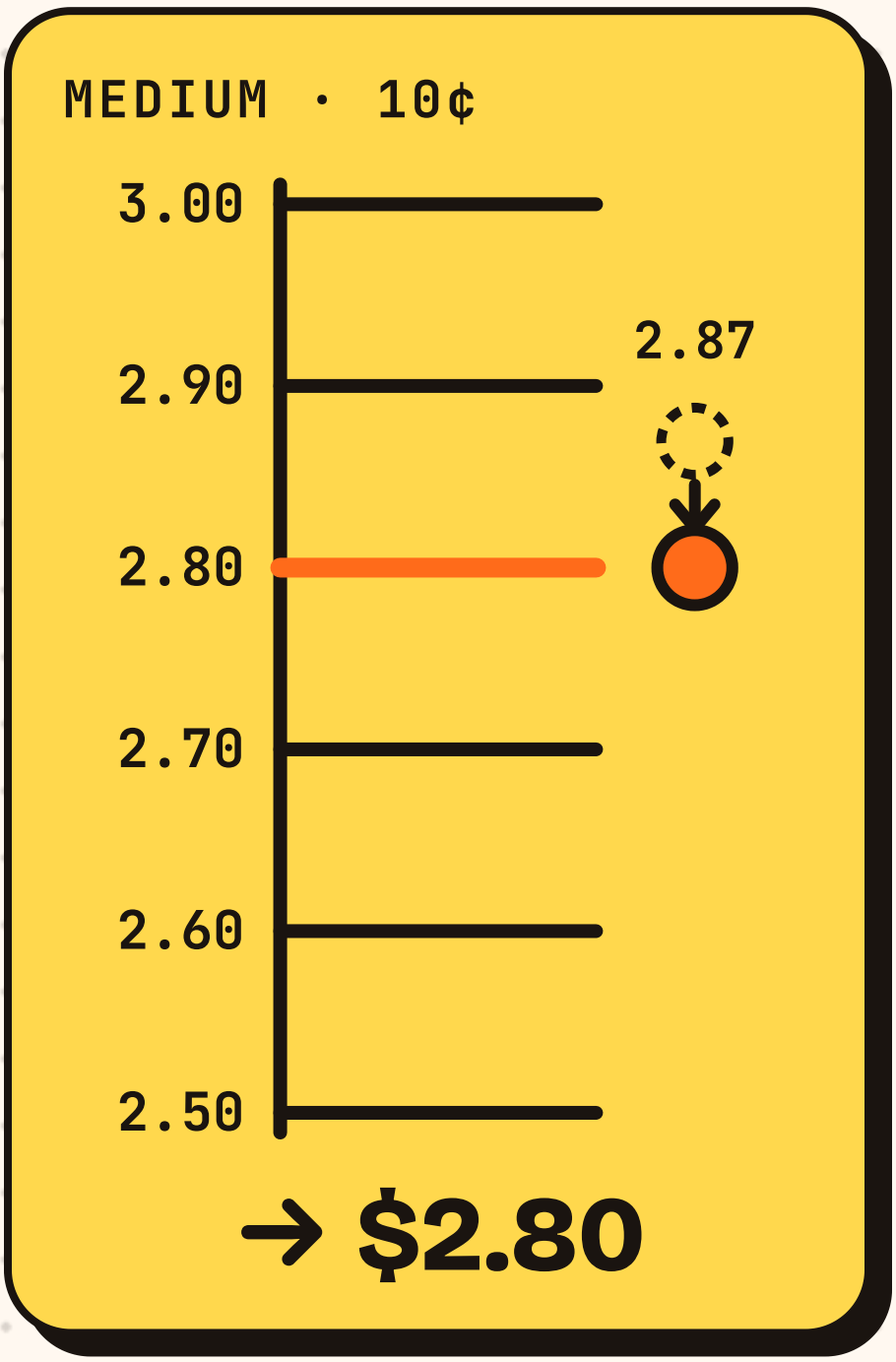
Price granularity

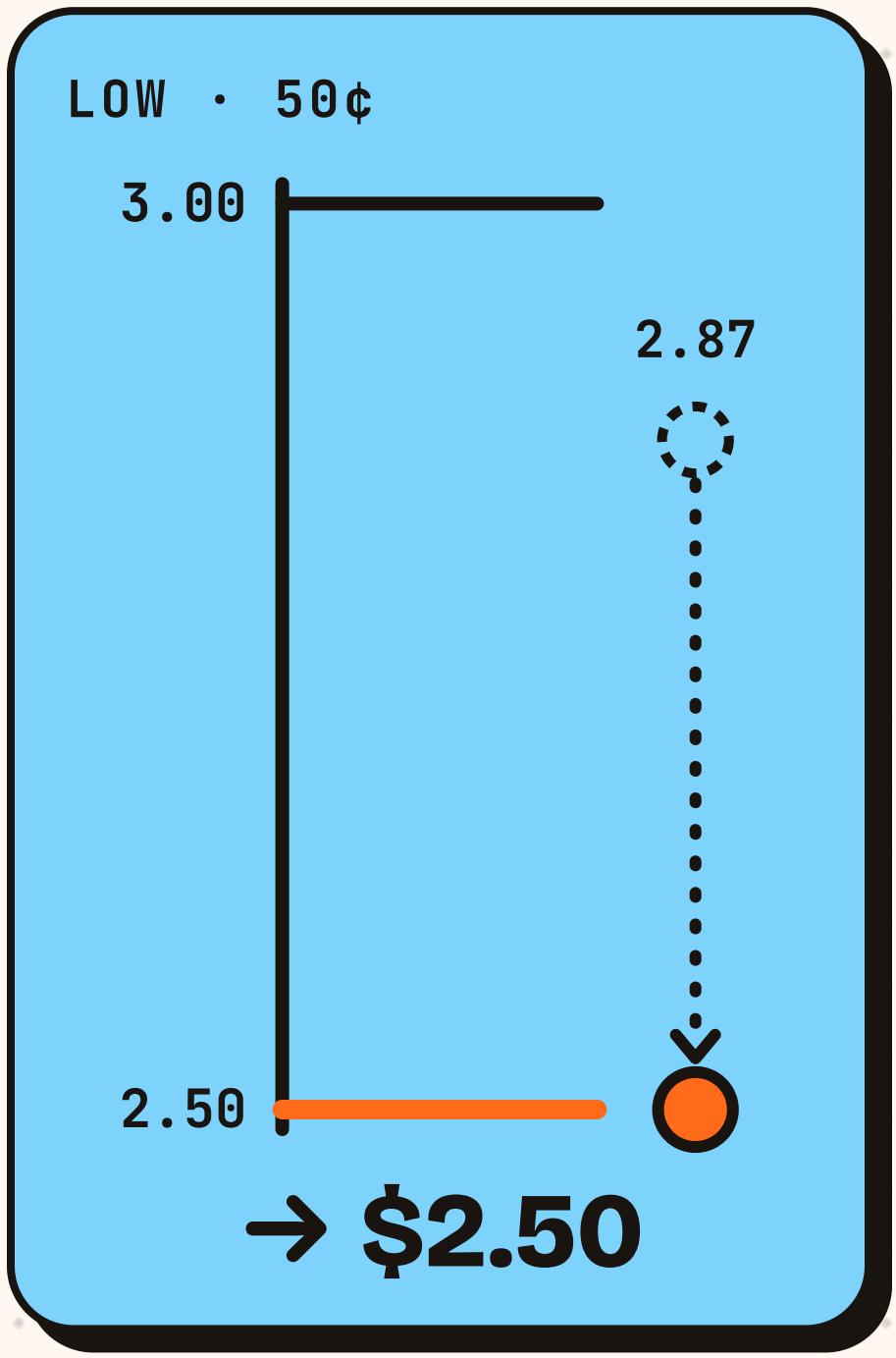
The size of the price steps Prebid rounds bids into.

Your ad server can't read every price, so bids go into **buckets**.

Step 1 · Round down

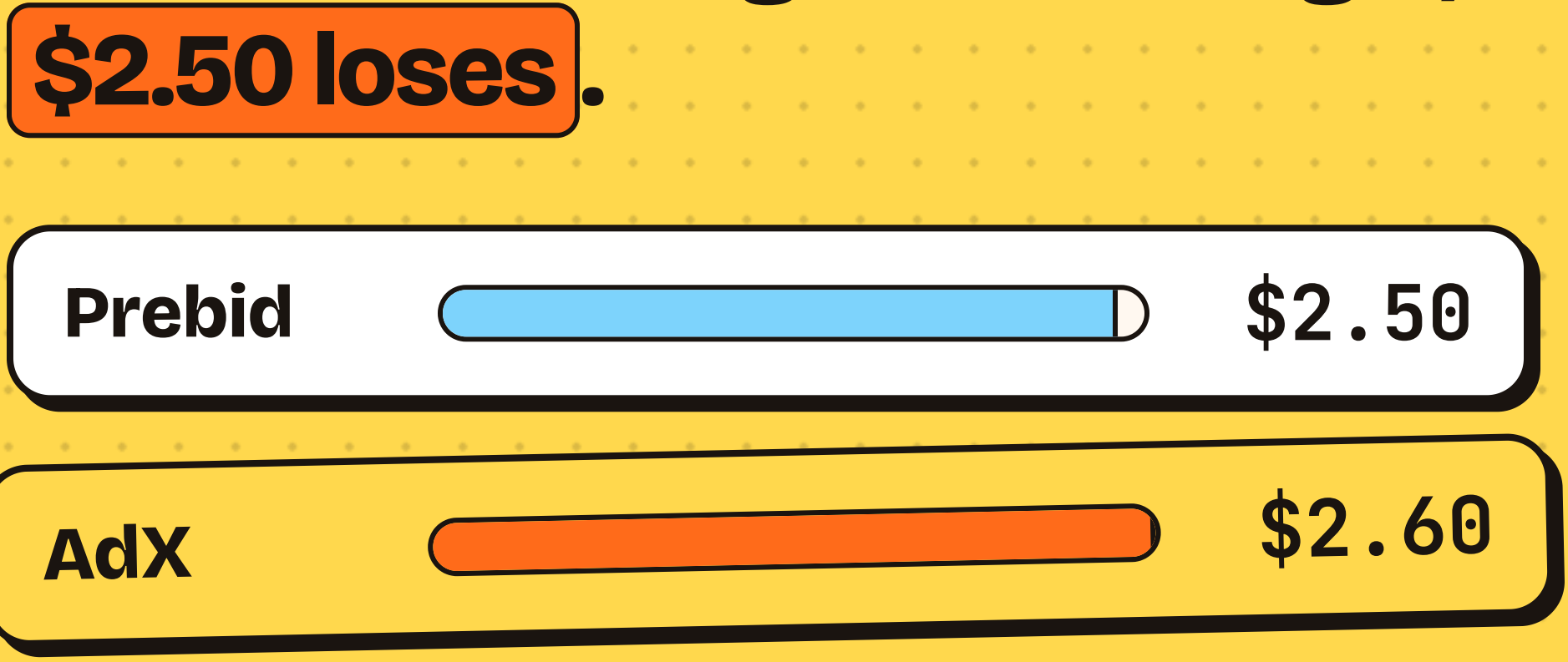
Same $2.87 bid, two settings. Coarser steps, lower bucket.





Step 2 · Compare

AdX bids $2.60 for the same view. Inside Google Ad Manager, $2.50 loses.



You earn $2.60, not $2.87

Step 3 · Pay

Rounding only affects that comparison.

IF THE PREBID BID WINS, IT PAYS

$2.87

A winning Prebid bid still pays its **real price**.

Step 4 · Trade-off

Finer steps need more line items. So many teams use custom steps.

CUSTOM STEPS · ILLUSTRATIVE

Fine where bids cluster



Your check today

Check your Prebid granularity.

- [x] Which setting: low, medium, high or custom?
- [x] Do your line items match it exactly?

Recap

Buckets round down:

1 Round down

2 Compare

3 Pay real price

4 Match line items

NEXT · EP 4

One line item per price bucket

Watch the 60-second video at
blog.rediads.com/learn

Adtech lessons · S3 · Ep 4

Why 2,000+ line items?

Prebid in Ad Manager: one line item per price bucket.

Swipe →

LINE ITEMS · ONE PREBID SETUP



For one header bidding setup.

Medium granularity, ten bidders. Here's the math.

The term

Prebid line item

An Ad Manager line item matched to **one price bucket**.

No matching line item, and Ad Manager **can't act** on the bid.

Step 1 · Match

Prebid sends the bucket as a key-value. A line item must target **exactly** that value.

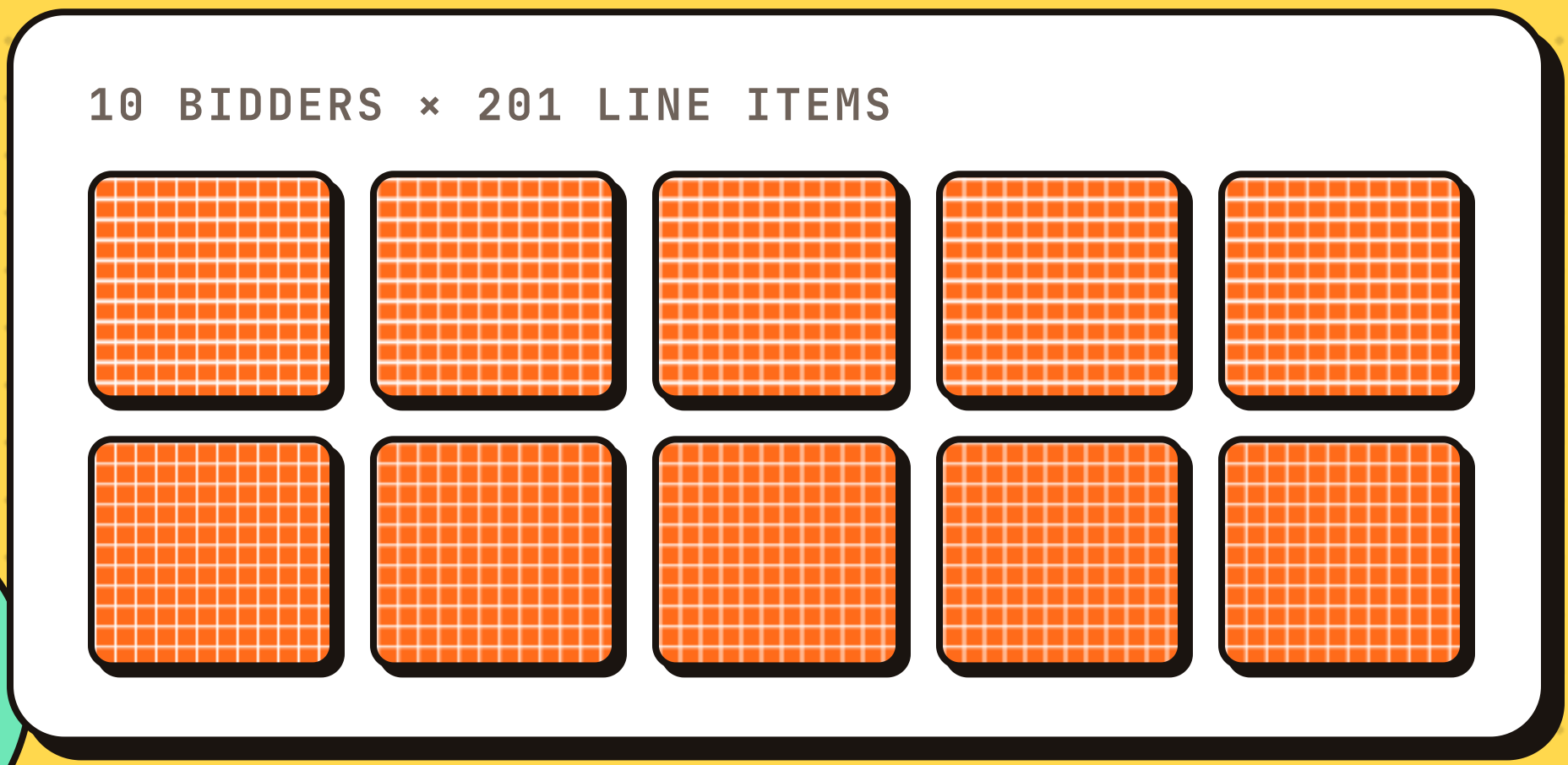
`hb_pb=2.80`

```
line item {
  type: "Price priority (12)"
  rate: $2.80
  targeting: hb_pb = "2.80"
}
```

Step 2 · Multiply

201 × 10 = 2,010

Medium granularity has 201 buckets. Give each of ten bidders its own set.



Step 3 · Split

Ad Manager allows 450 line items per order. So: at least five orders.

Order 1	450
Order 2	450
Order 3	450
Order 4	450
Order 5	210

Step 4 · Automate

You don't have to build them **by hand**.

P

Line Item Manager

Prebid's tool builds the line items

OR

G

Header bidding trafficking

Ad Manager 360, web banners: replaces them

Your check today

Pick one bucket, say $2.80.

- [x] Its line item targets hb_pb = 2.80
- [x] Price priority, with a matching $2.80 rate

Recap

One bucket, one line item:

1 Match

2 Multiply

3 Split

4 Automate

NEXT · EP 5

Send-all-bids vs top price

Watch the 60-second video at
blog.rediads.com/learn

Adtech lessons · S3 · Ep 5

Does Prebid only send the winner?

Send-all-bids vs top price, in one minute.

Swipe →

RediAds blog.rediads.com/learn

A COMMON MYTH

“Prebid only reports the ~~winning bid~~.”

Not by default.

Prebid can pass every bidder's price to your ad server.

The term

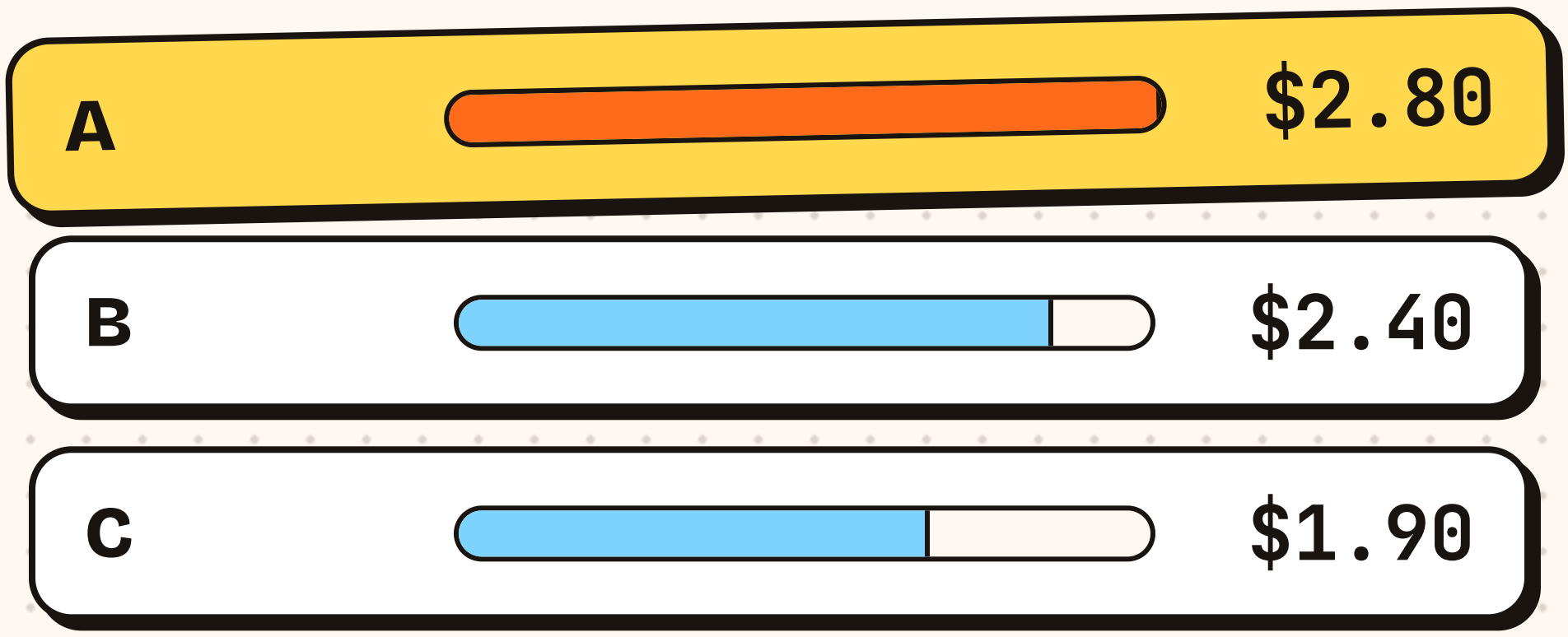
Send-all-bids

Every bidder's price goes to your ad server, **not just the top one**.

The other mode, **top price**, sends only the highest bid.

Step 1 · Top price

Three bids on game.example. Prebid sends one set of keys.




```
hb_pb: "2.80"
hb_bidder: "bidderA"
```

Step 2 · Send all

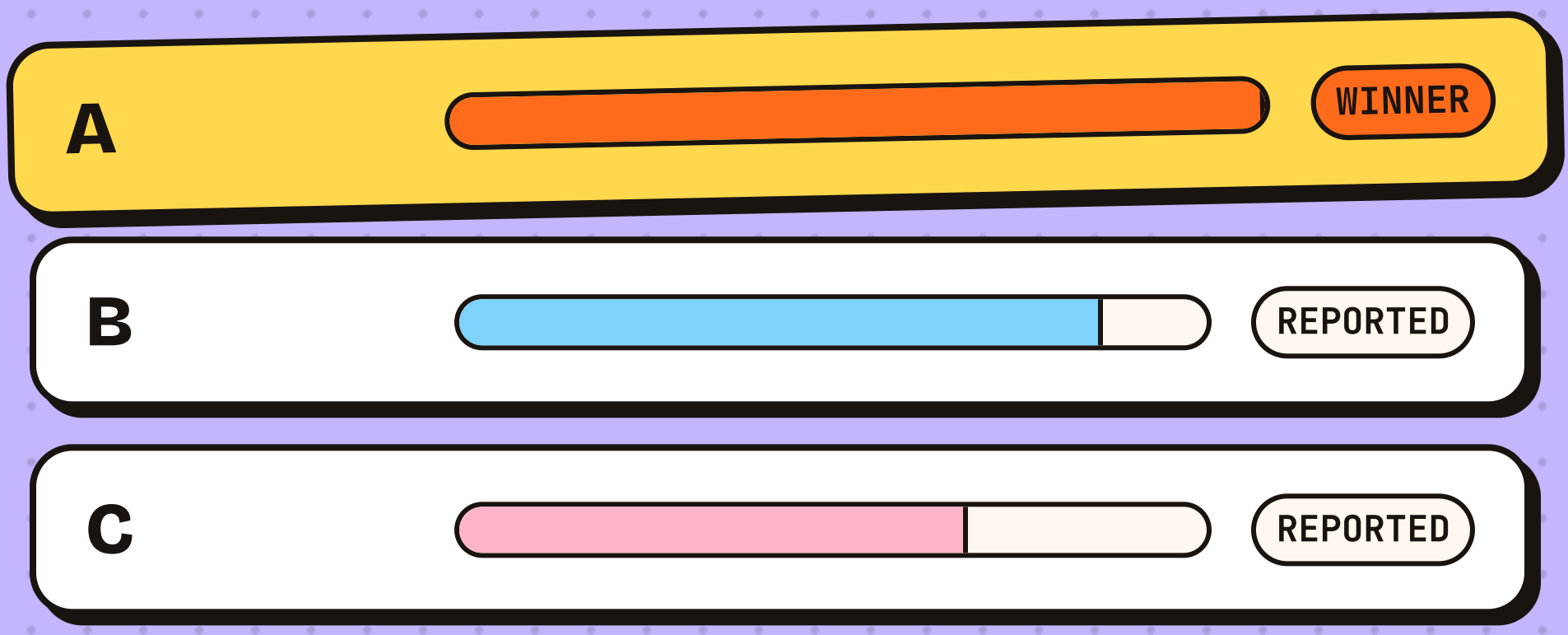
Prebid's `default`. It also sends a key per bidder.

```
hb_pb_bidderA: "2.80"
hb_pb_bidderB: "2.40"
hb_pb_bidderC: "1.90"
```

Now Ad Manager sees every bidder's price.

Step 3 · Report

Ad Manager can report on every bidder, even losers.



Spot the partner who bids often, but low.

Step 4 · The cost

Line items per bidder. And Ad Manager cuts key names over **20 characters**.

21 CHARACTERS

`hb_cache_host_bidderA`

That quietly breaks targeting.

Your check today

Check your setting.

- [x] Top price or send-all bids?
- [x] If send-all: every key name within 20 characters

Recap

Send all to see all:

1 Top price

2 Send all

3 Report

4 Mind 20

NEXT · EP 6

The Prebid Universal Creative

Watch the 60-second video at
blog.rediads.com/learn

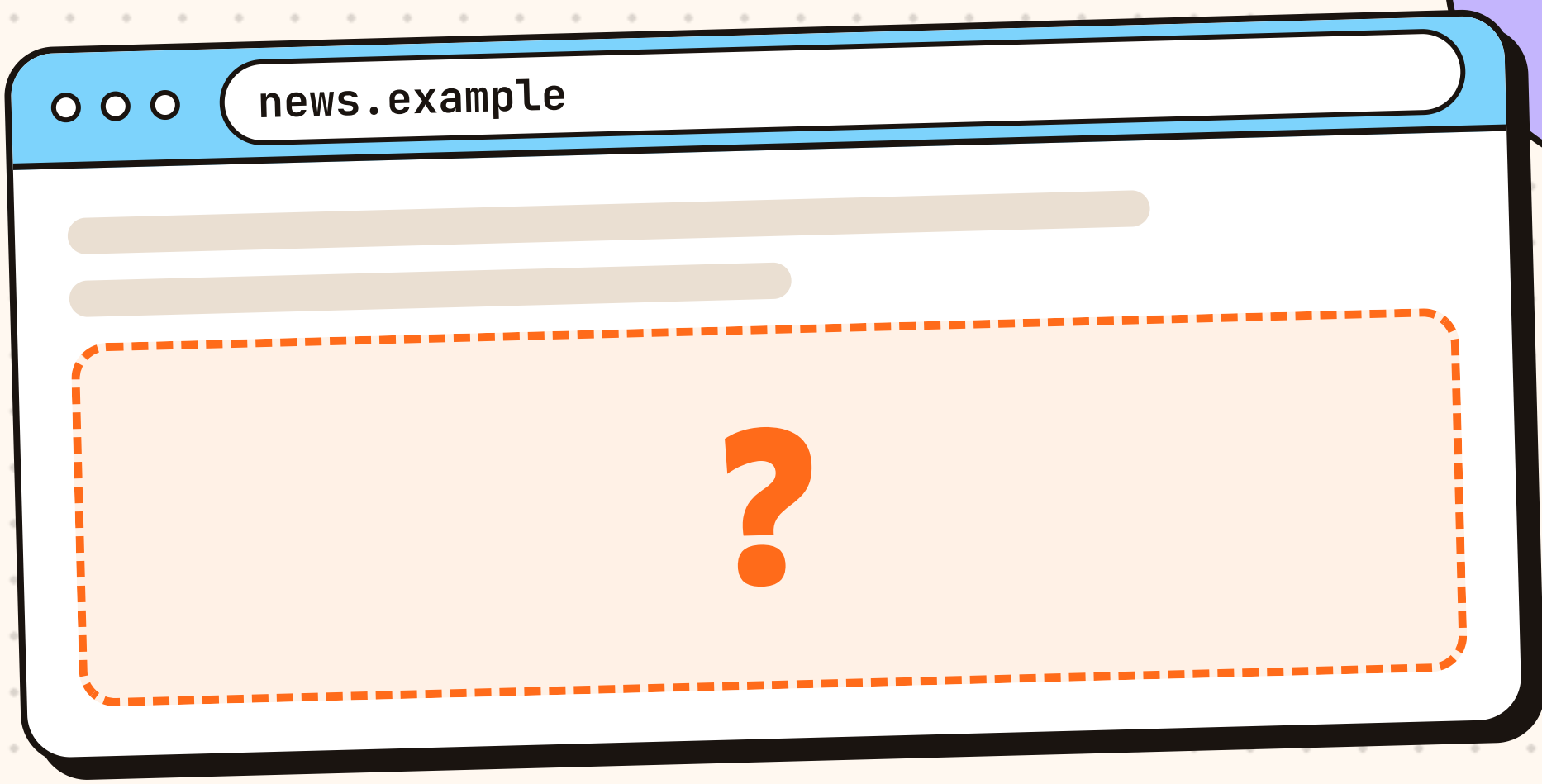
Adtech lessons · S3 · Ep 6

Your Prebid bid won. Where's the ad?

How the Prebid Universal Creative renders it.

Swipe →

RediAds blog.rediads.com/learn



The line item holds **no ad**.

It holds a script.

The term

Prebid Universal Creative

A small script that **fetches and shows** the winning ad.

Short name: the **PUC**.

Step 1 · The script

When the line item wins, the script reads one key: `hb_adid`.

Simplified

```
<script src=".../prebid-universal-creative@
  %%PATTERN:hb_ver%%/dist/%%PATTERN:hb_format%%.js">
ucTagData.adId = "%%PATTERN:hb_adid%%";
ucTag.renderAd(document, ucTagData);
</script>
```

Step 2 · Ask

It asks Prebid.js, on your page, for ad `7f3`.

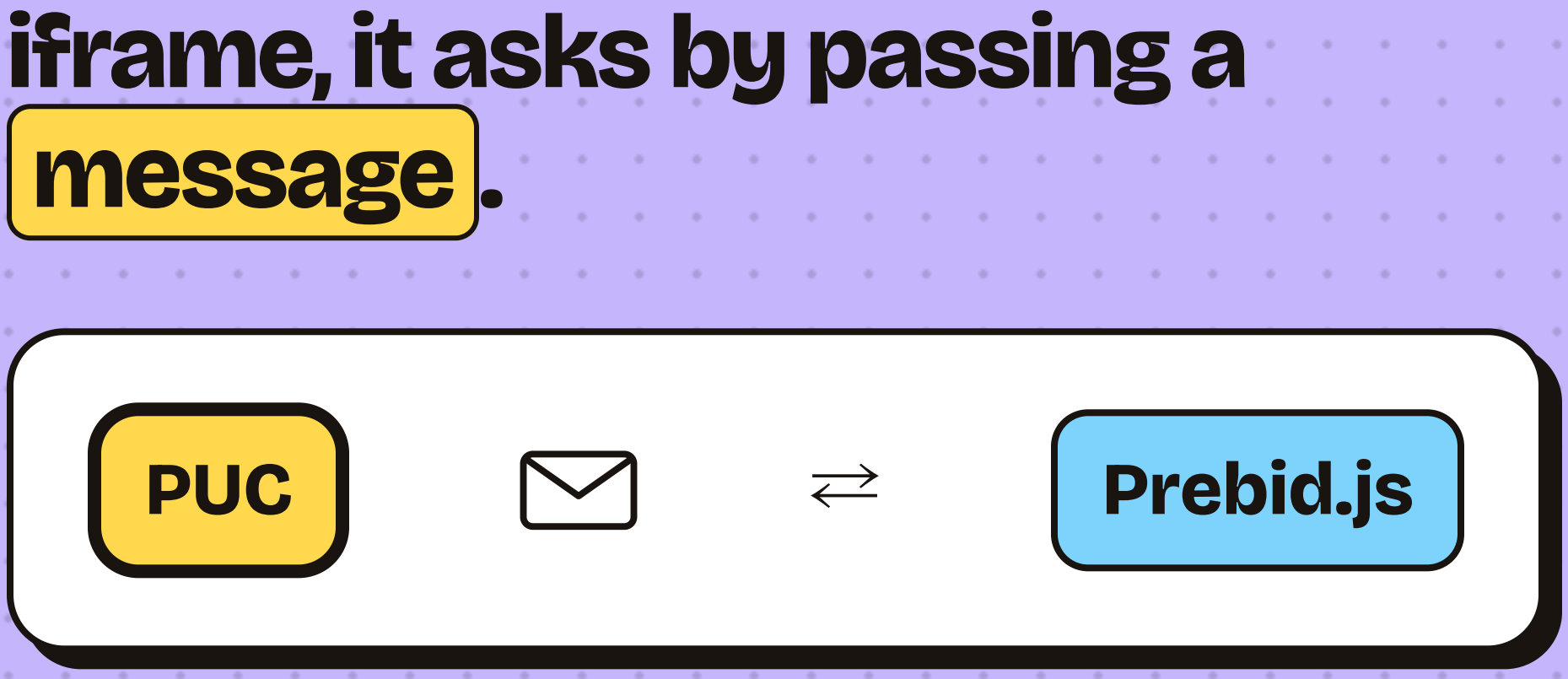
1 **PUC script**
Reads hb_adid = 7f3

↓

2 **Prebid.js**
On the page, holds the winning bid

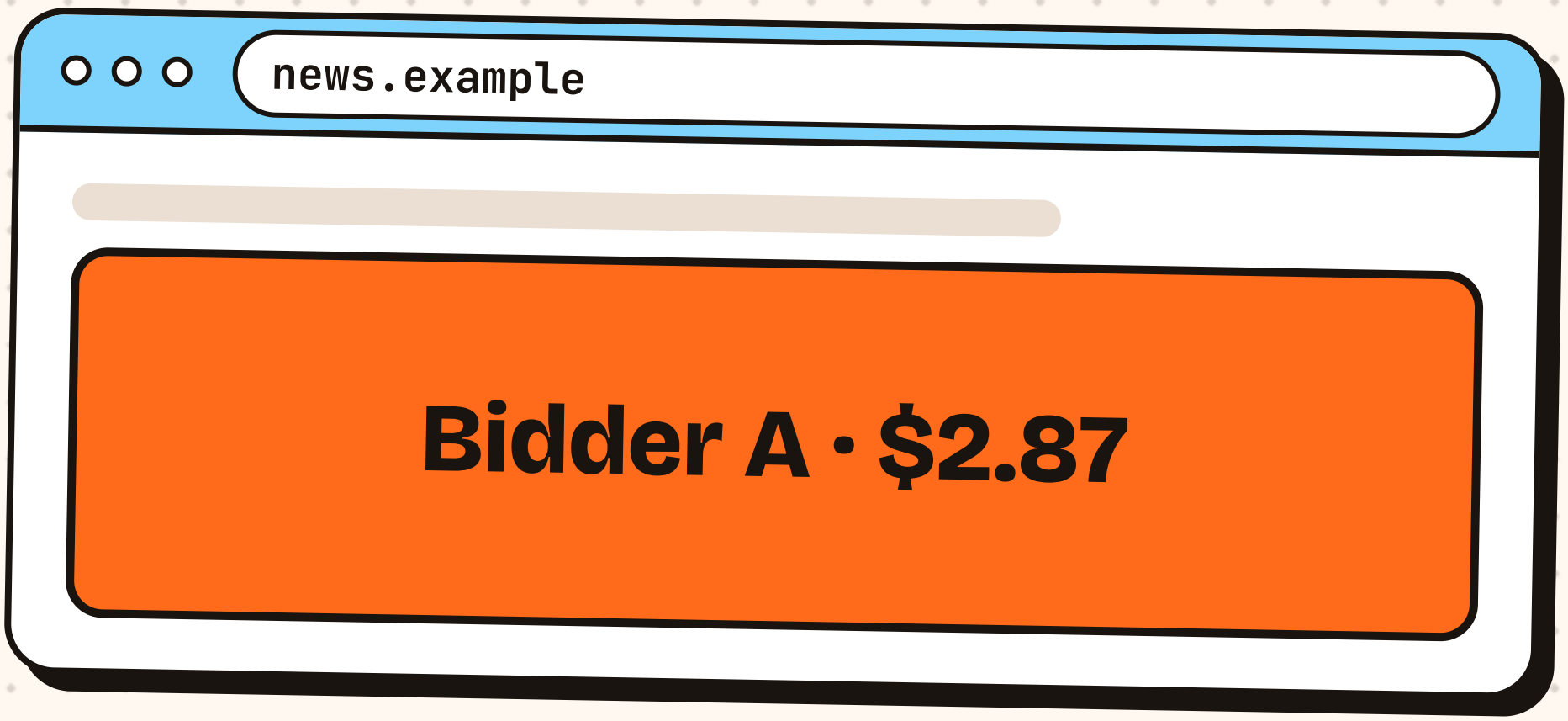
Step 3 · SafeFrame

In a SafeFrame, a protective iframe, it asks by passing a **message**.



Prebid hands the ad back across the frame.

Step 4 · Render



+ Since Prebid 10.11: hb_ver and hb_format pick version and format

+ In apps: the ad comes from Prebid Cache

Your check today

Open one Prebid creative.

- [x] In Ad Manager, open a Prebid line item's creative
- [x] Does it load the universal creative?

Recap

Script, not ad:

1 Script

2 Ask

3 Message

4 Render

NEXT · EP 7

Managed wrapper vs self-hosted Prebid

Watch the 60-second video at
blog.rediads.com/learn

Adtech lessons · S3 · Ep 7

Prebid is free. Running it isn't.

Managed wrapper vs self-hosted Prebid.

Swipe →

A COMMON MYTH

“Prebid is free, so running it ~~costs nothing~~.”

The code is free.

The work around it isn't.

The term

Managed wrapper

Prebid installed and run for you by an **outside company**.

The other option: **self-hosted**, run by your own team.

Step 1 · Self-hosted

Your team owns every job.

1	Adapters + builds	YOUR TEAM
2	Upgrades ≥ every 6 months	YOUR TEAM
3	Line items	YOUR TEAM
4	Consent + analytics	YOUR TEAM
5	Timeouts	YOUR TEAM
6	ads.txt line per bidder	YOUR TEAM

Step 2 · Managed

Say recipes.example has no ad ops hire. A provider runs **all of it**.

$

Revenue share or fee

Usually how the provider is paid

S

Its own SSP accounts

Often brought by the provider

Step 3 · The trade

Less work. Less control.

And less visibility without bidder-level reporting.

Step 4 · Who fits

Who usually picks which?

E

Teams with engineers

Often self-host

S

Small teams

Often use a partner

Your check before signing

Ask three things.

- [x] What's the fee?
- [x] Whose SSP accounts?
- [x] Do I get bidder-level reporting?

Recap

Free code, real work:

1 Jobs

2 Managed

3 Trade

4 Ask

NEXT · EP 8

Prebid, Open Bidding and Amazon

Watch the 60-second video at
blog.rediads.com/learn

RediAds Follow for Ep 8

Adtech lessons · S3 · Ep 8

One slot. Three auctions.

Prebid, Amazon and Open Bidding in one Ad Manager setup.

Swipe →

RediAds blog.rediads.com/learn

ONE AD SLOT · NEWS.EXAMPLE



Three auctions. One winner.

Many larger sites run three bidding paths. Here's where they meet.

The term

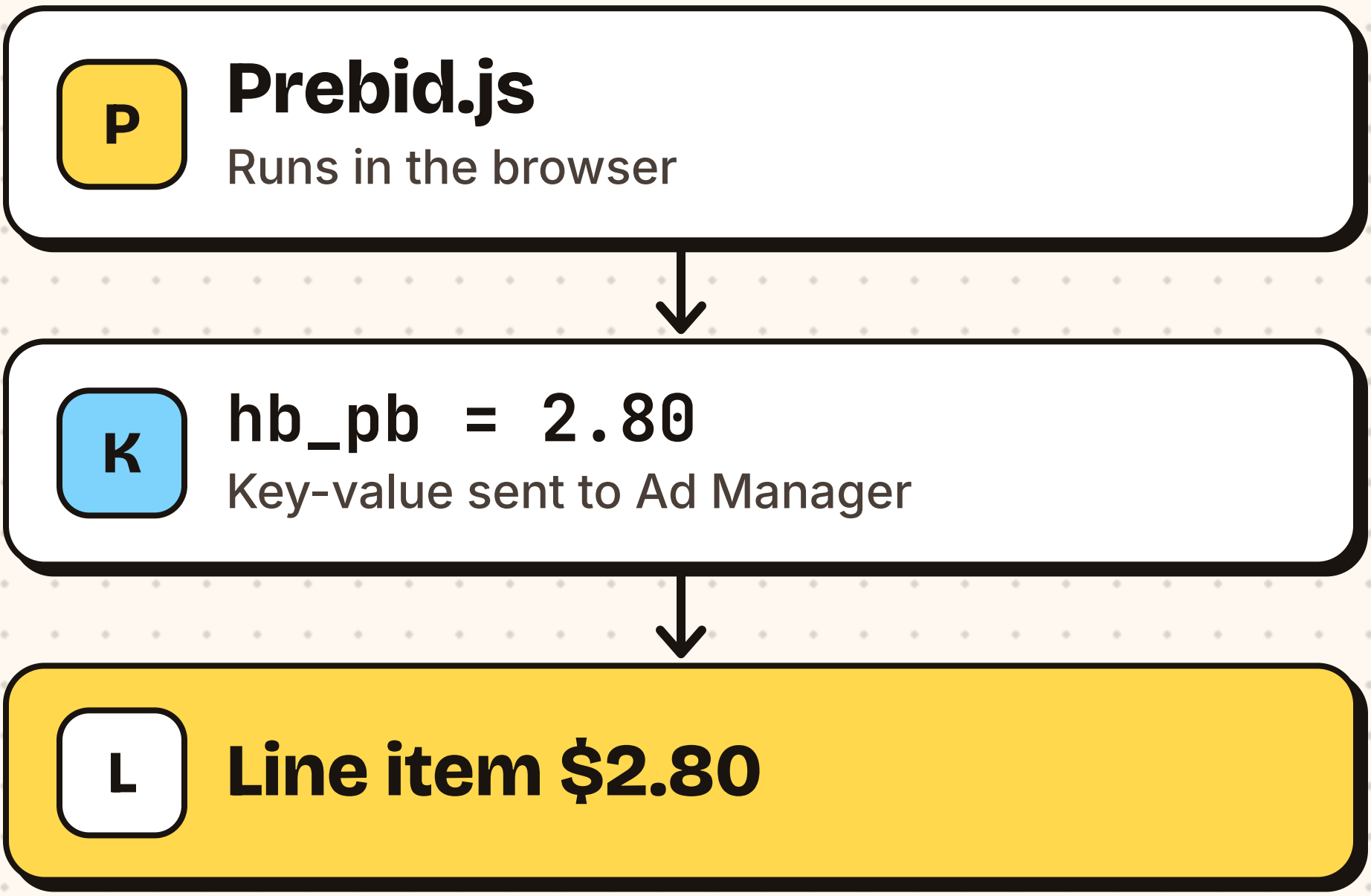
Three paths, one final auction

Prebid, Amazon and Open Bidding all bring bids into **Google Ad Manager**.

There, **price decides**.

Path 1 · Prebid

Its best bid arrives as a key-value and matches a $2.80 line item.



Path 2 · Amazon

Amazon Publisher Services runs a separate auction, with its own key-values and line items.

AMAZON LINE ITEM	$2.50

Since Jan 2026: a Prebid adapter, in open beta

Path 3 · Open Bidding

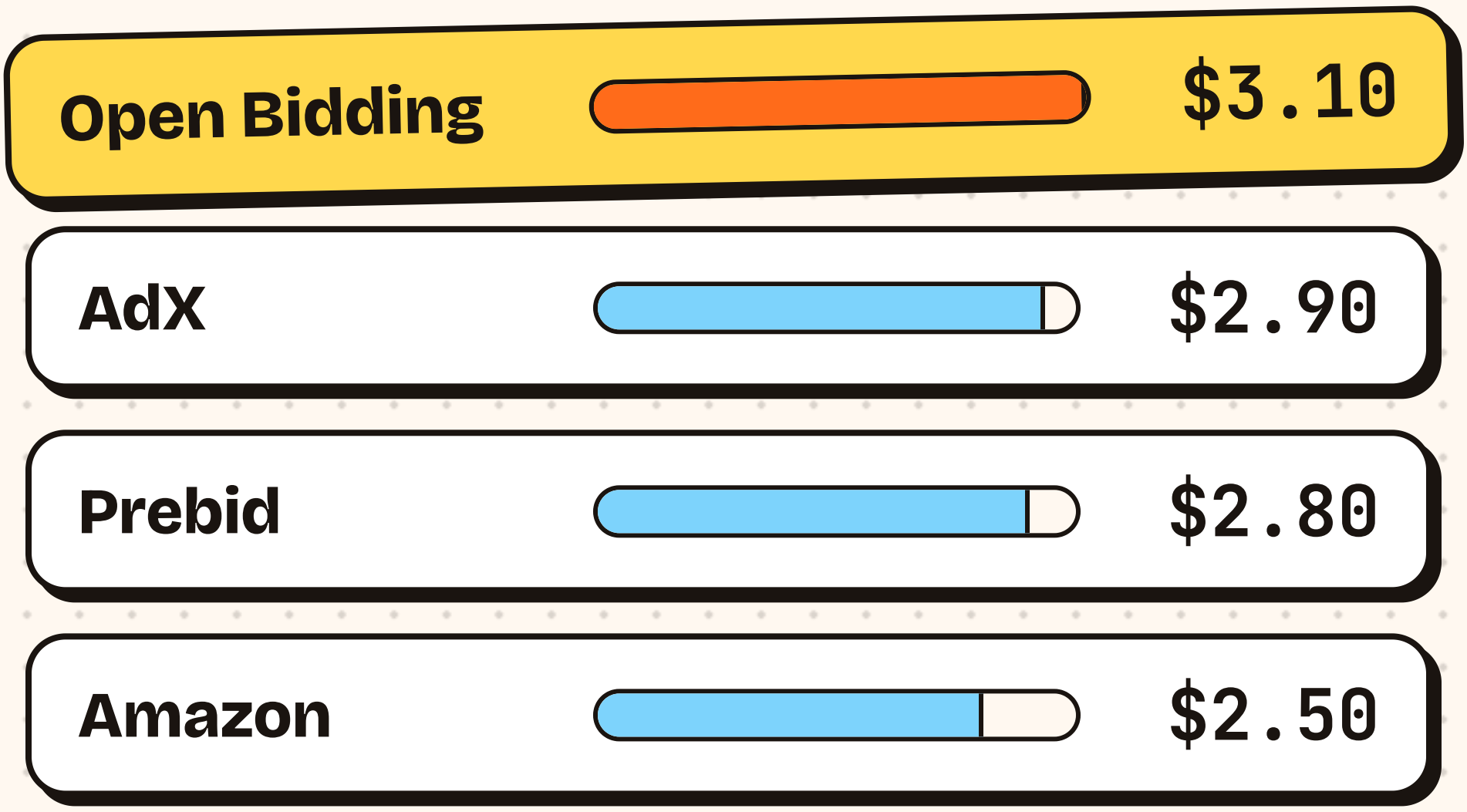
No extra page code. Ad Manager calls SSPs server to server, through yield groups.

OPEN BIDDING BID **$3.10**

Google takes a **revenue share.**

The final auction

Ad Manager compares everything on price, AdX included.



- Watch out: an SSP in two paths can bid against itself.

Your check today

List your SSPs by path.

- [x] Prebid, Amazon, Open Bidding: who is in each?
- [x] If a name appears twice, ask why

Recap

Three paths, one auction:

1 Prebid

2 Amazon

3 Open Bidding

Price wins

NEXT · EP 9

Read your Prebid analytics: bid rate, win rate, timeout rate

Watch the 75-second video at
blog.rediads.com/learn

RediAds Follow for Ep 9

Adtech lessons · S3 · Ep 9

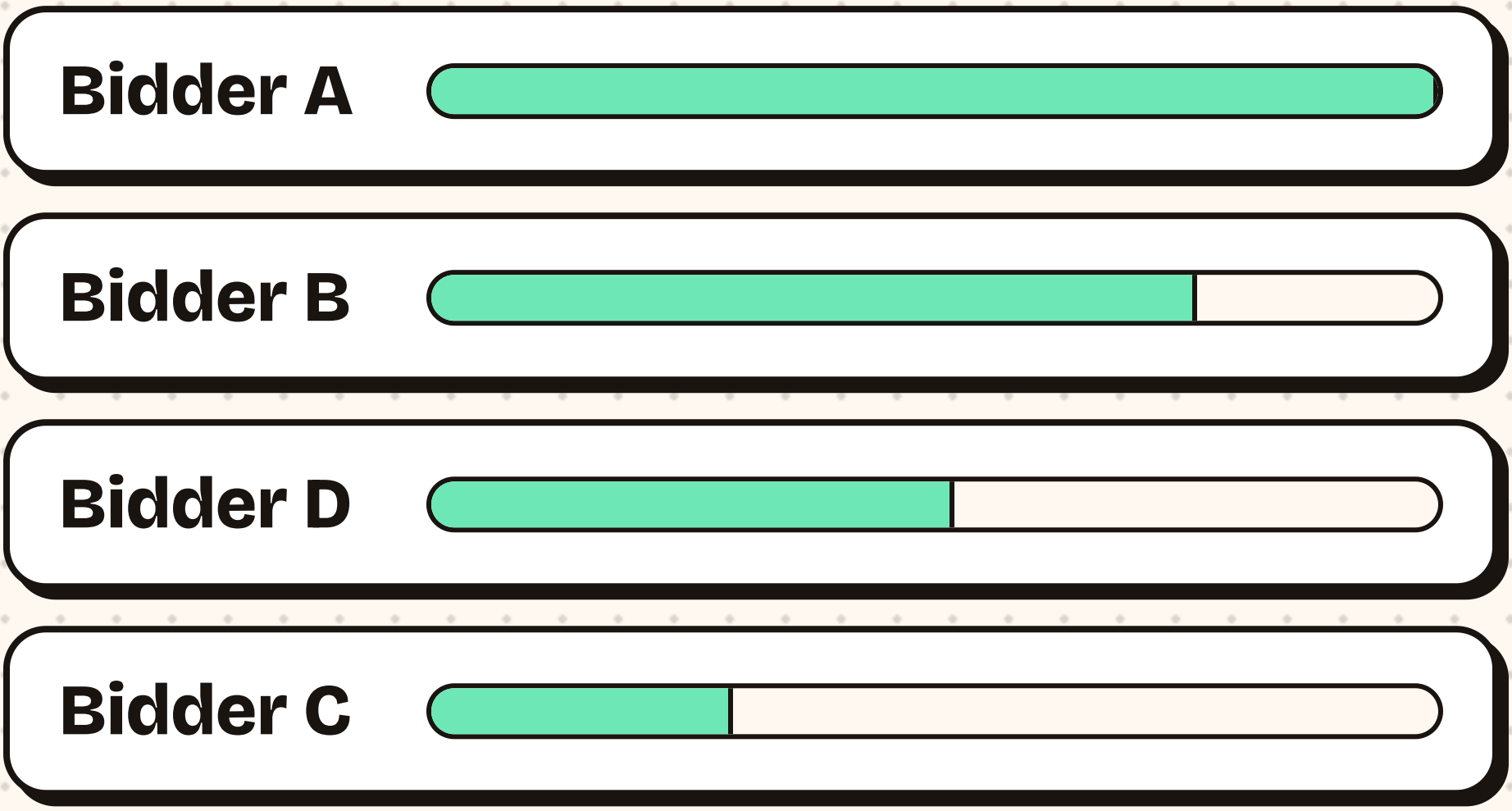
Revenue alone hides the why.

Read your Prebid analytics: bid rate, win rate, timeout rate.

Swipe →

RediAds blog.rediads.com/learn

BIDDERS RANKED BY REVENUE



But why is C last?

Revenue can't say. Three rates can.

The term

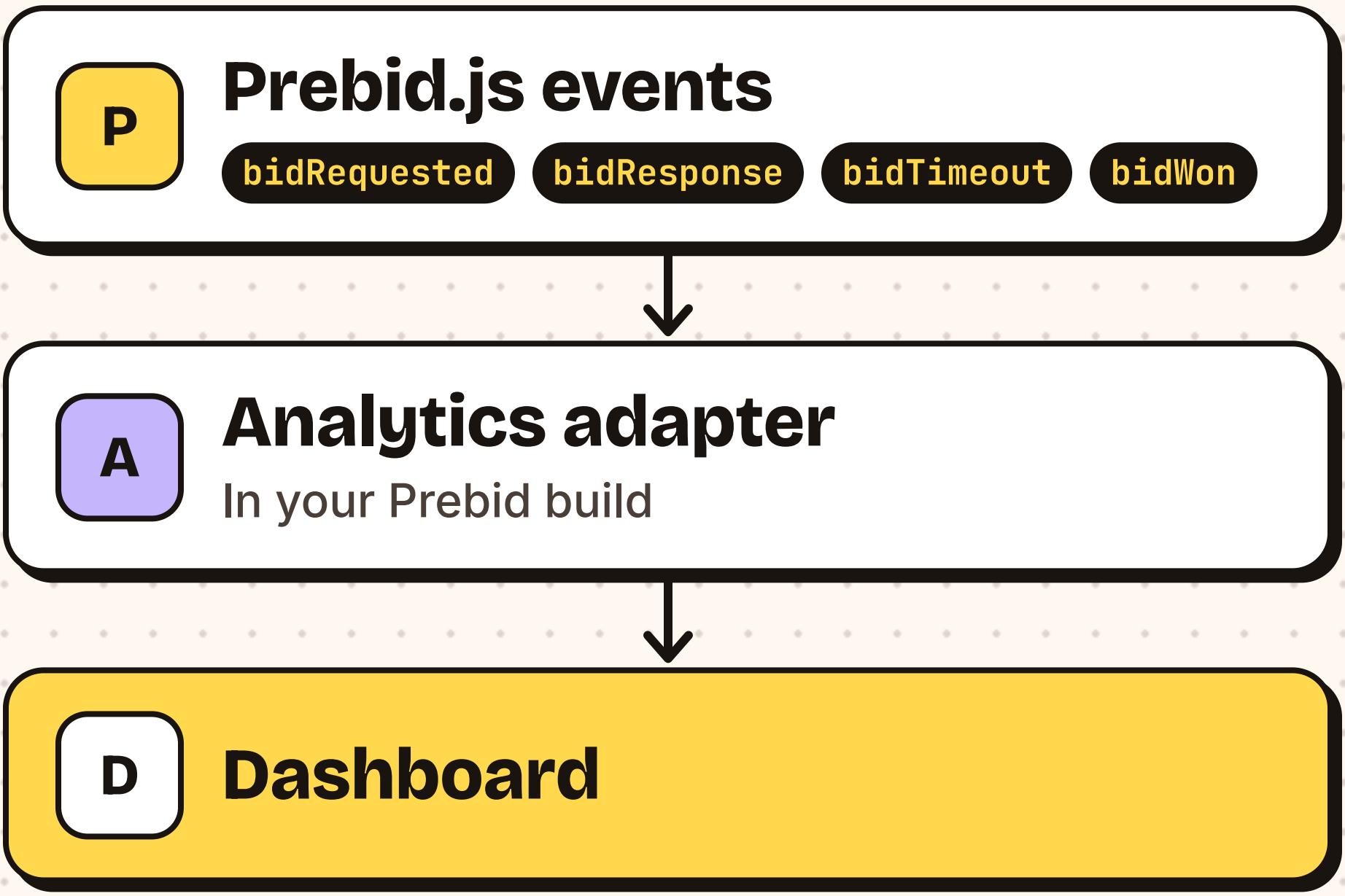
Analytics adapter

A Prebid plug-in that records each bidder's **requests, bids, timeouts and wins**.

From a vendor, or built **in-house**.

Step 1 · Collect

Prebid.js fires an event at each auction step. The adapter sends them to a dashboard.



Step 2 · Bid rate

Bidder C on recipes.example: 10,000 requests, 4,000 bids.

BIDS ÷ REQUESTS

40%



Low? Look at **setup, consent or demand.**

Step 3 · Win and timeout rates

WINS 400
÷ BIDS 4,000

10%



TIMEOUTS 1,500
÷ REQUESTS 10,000

15%



1,500 answers came **after the timeout.**

Step 4 · Diagnose

Late bids aren't **bad** bids.

1. **Low bid rate**
   Setup, consent or demand

2. **Low win rate**
   It bids, but low

3. **High timeout rate**
   Too late: check speed before you drop the partner

Your check today

Open your Prebid analytics.

- [x] Confirm your build has an analytics adapter
- [x] Find your highest timeout rate

Recap

Three rates per bidder:

Bid rate

Win rate

Timeout rate

NEXT · EP 10

Dynamic floors in Prebid

Watch the 60-second video at
blog.rediads.com/learn

Adtech lessons · S3 · Ep 10

Floors that move.

Dynamic floors in Prebid, and how to prove they help.

Swipe →

RediAds blog.rediads.com/learn

PRICE FLOOR · $1.00

$1.00

Bidder B $0.99 REJECTED

Every time.

The term

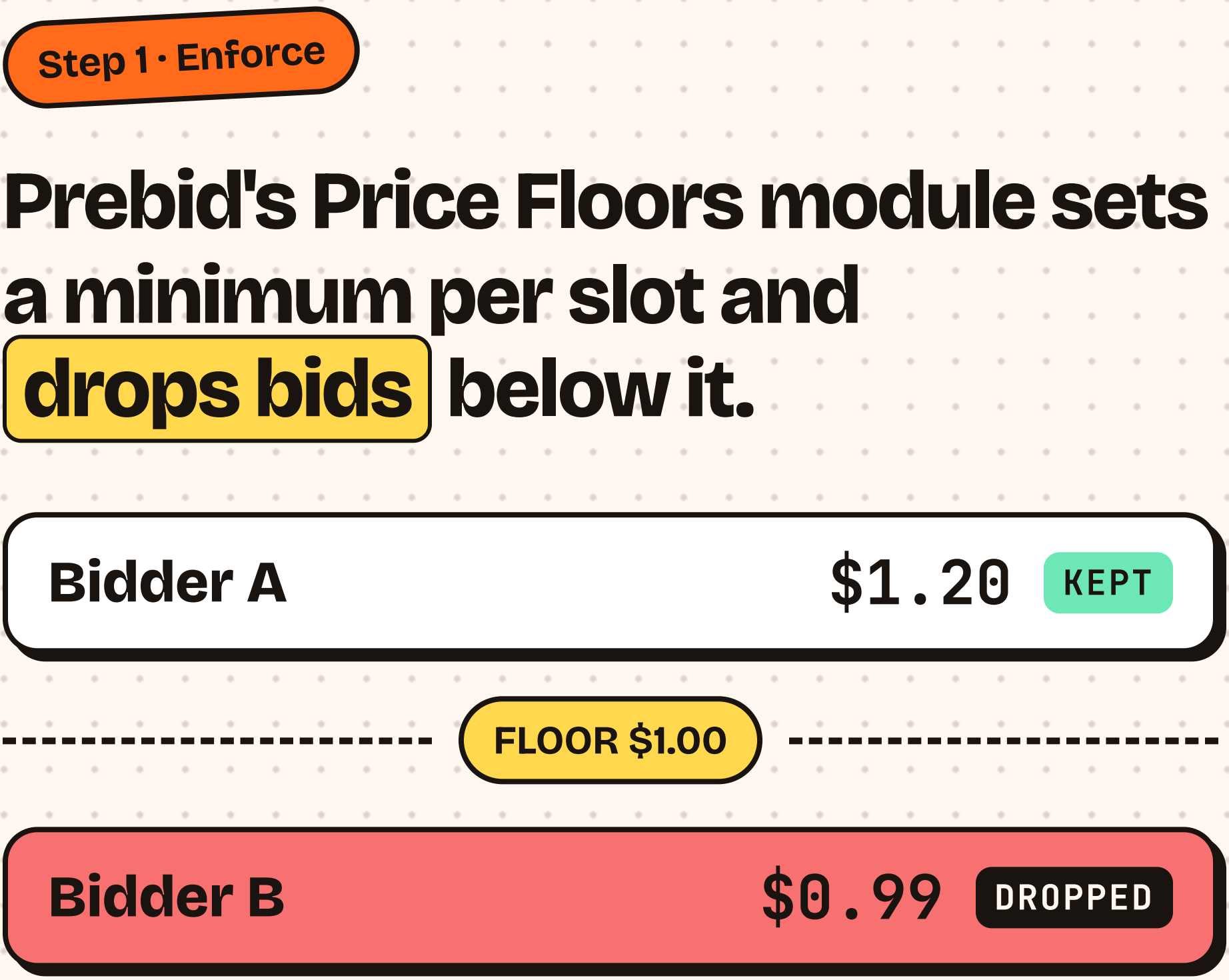
Dynamic floor

A minimum bid price that **updates itself** from data.

A static floor is typed in once.
Prebid's docs warn **you'll forget it**.

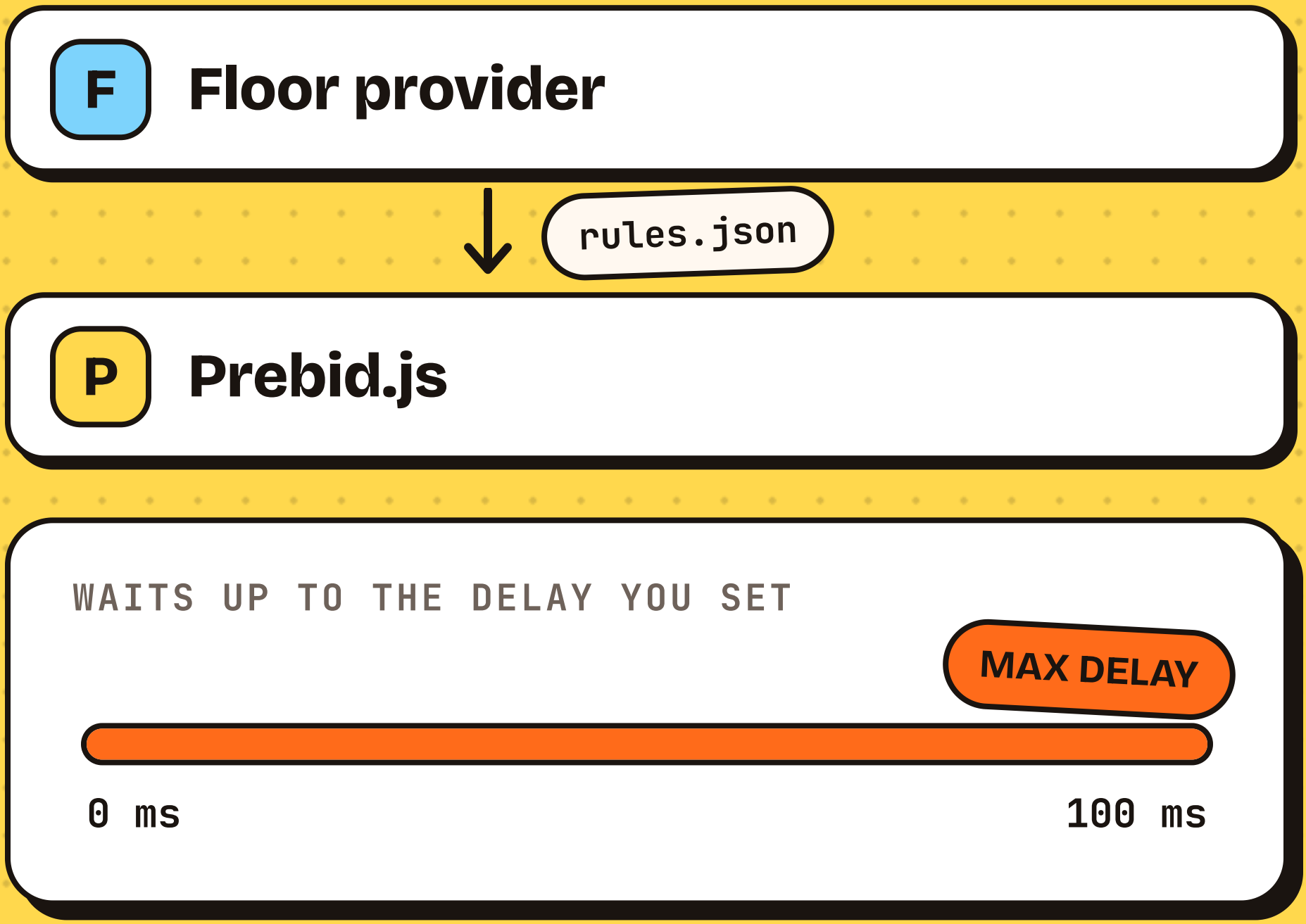
Step 1 · Enforce

Prebid's Price Floors module sets a minimum per slot and **drops bids** below it.



Step 2 · Fetch

Before each auction, Prebid fetches fresh rules from a floor provider.



Step 3 · Vary

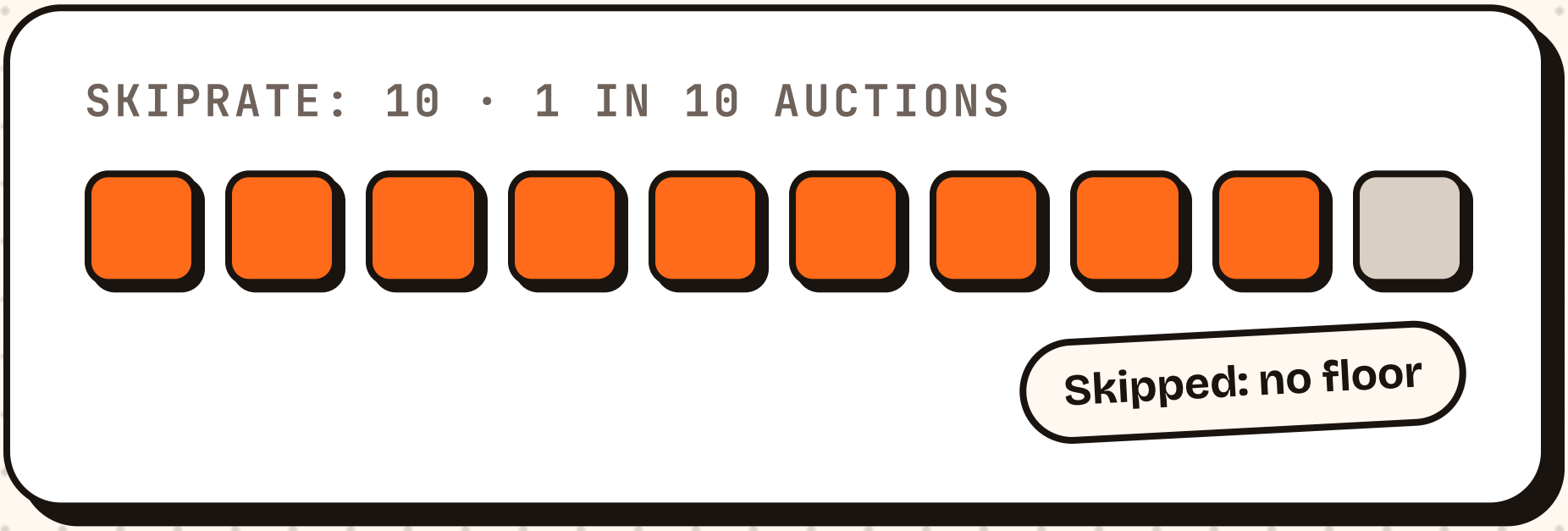
Rules can vary by slot, size or format.

NEWS.EXAMPLE · FLOOR RULES

```
"banner|320x50": 1.20
"video|*":       4.00
default:         0.75
```

Step 4 · Measure

A skip rate turns floors off for some auctions, so you can **measure** if they help.



Your check today

Check your floors.

- [x] Do you run the floors module?
- [x] When did its values last change?

Recap · Season 3 complete

Floors that move:

1 Enforce

2 Fetch

3 Vary

4 Measure

NEXT · SEASON 4

Deals, curation and the supply chain

Watch the 60-second video at
blog.rediads.com/learn