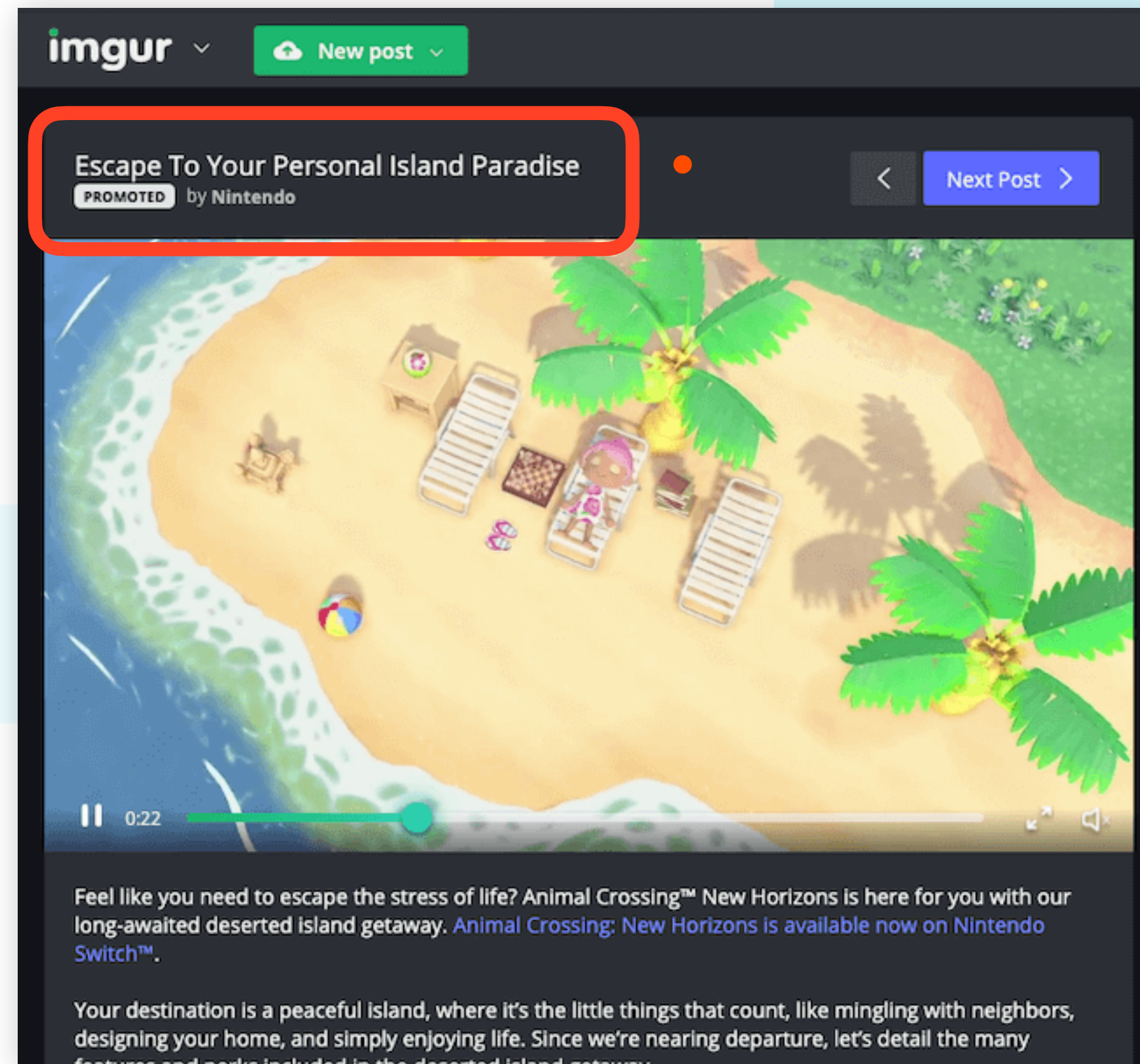


Build vs Buy: Build an Ad Server From Scratch or with ad APIs?

The pros and cons of building an ad server from scratch versus using ad APIs to launch it sooner

Introduction



You have a vision of launching a high-revenue, innovative ad product (or scaling your homegrown solution).

But does it make sense to build this entire ad tech stack yourself?

This eBook will look into when it does – and when you should instead use ad serving infrastructure APIs to speed up the build process



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01

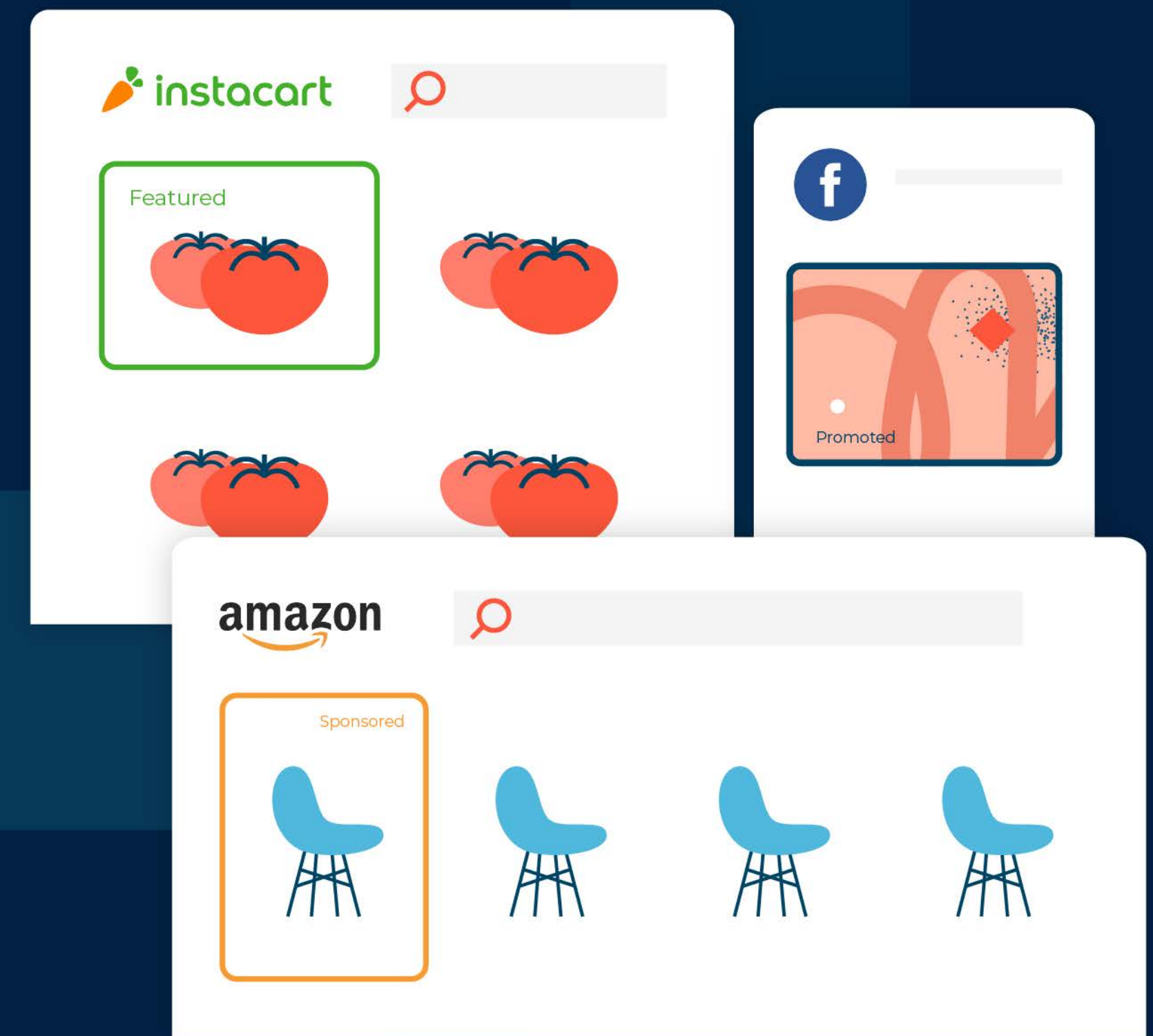
Building an ad server from scratch or building faster with ad APIs: why have this discussion at all?



The rise of in-house ad platforms

With the success of in-house ad platforms built by Facebook, Amazon, Etsy, and others, many companies have wondered, “Should we build something similar?”

After all, these brands’ native ad products are pillars of their growth – it would make sense others would pursue building something similar.



Easier said than done, however



But after looking into it, most companies realize how complex the project would be and then de-prioritize it.

Others persevere. After finding no off-the-shelf solution flexible enough, they decide to build the ad platform themselves, from scratch.

A year later, their beta advertisers are complaining about slow ad load times and the lack of features. Their ad ops team is bemoaning the manual set-up work.

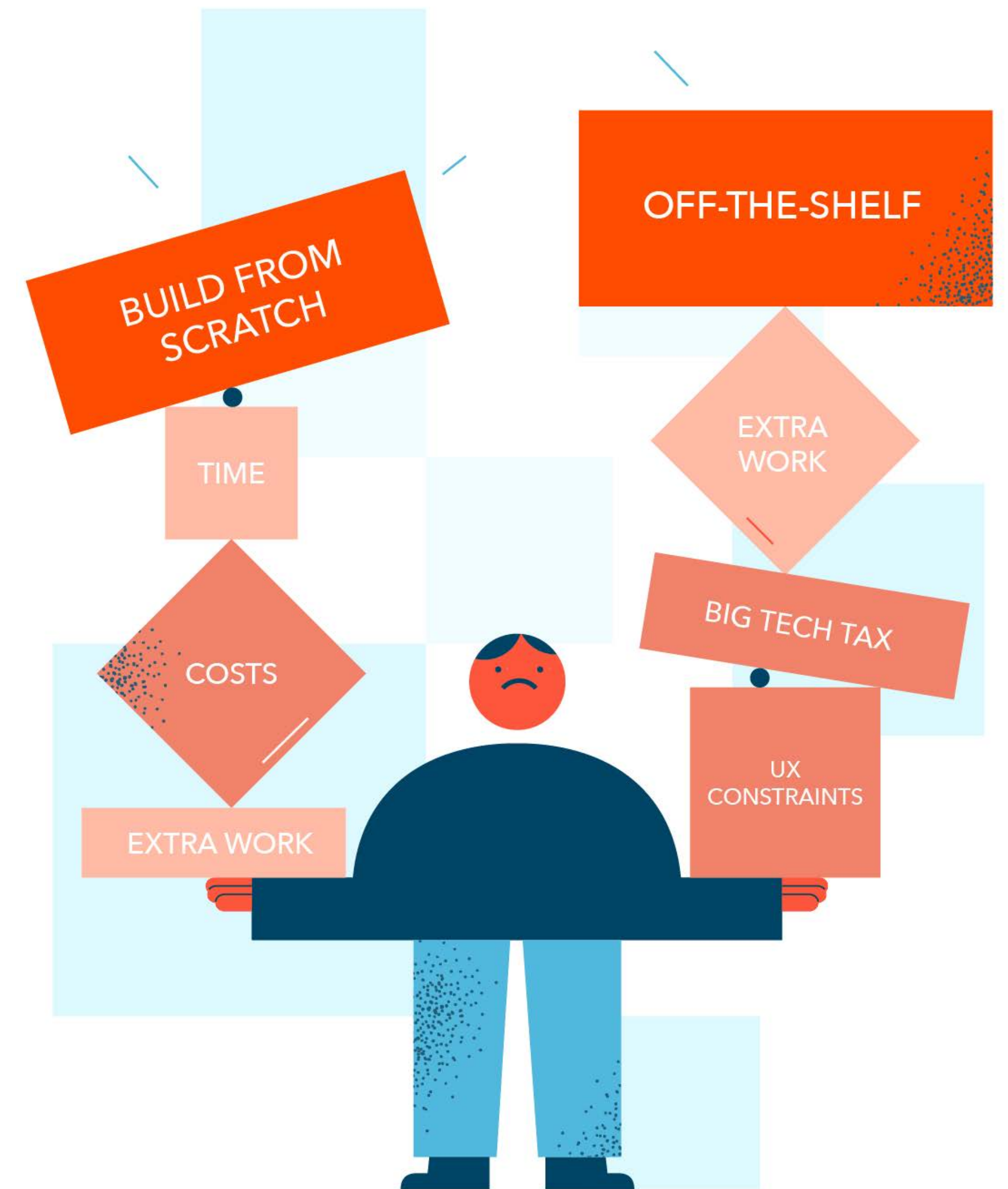
At this point, most either jettison the project or learn to live with an imperfect homegrown solution.

Publishers are creating a false dilemma

In the previous scenario, the thinking goes, “Either I work with an imperfect JavaScript ad server, or I build everything myself.”

It’s true that standard ad servers like Google Ads Manager aren’t ideal for custom, native ad platforms.

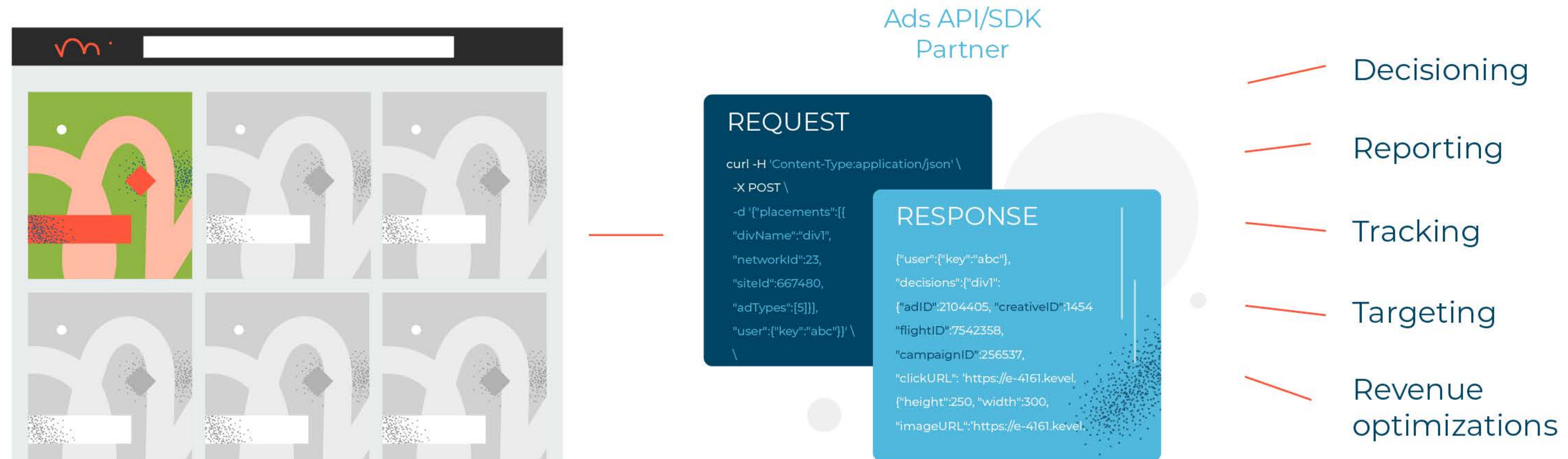
But it’s not the case that the only alternative is building it entirely yourself.



Enter: ad serving APIs and SDKs

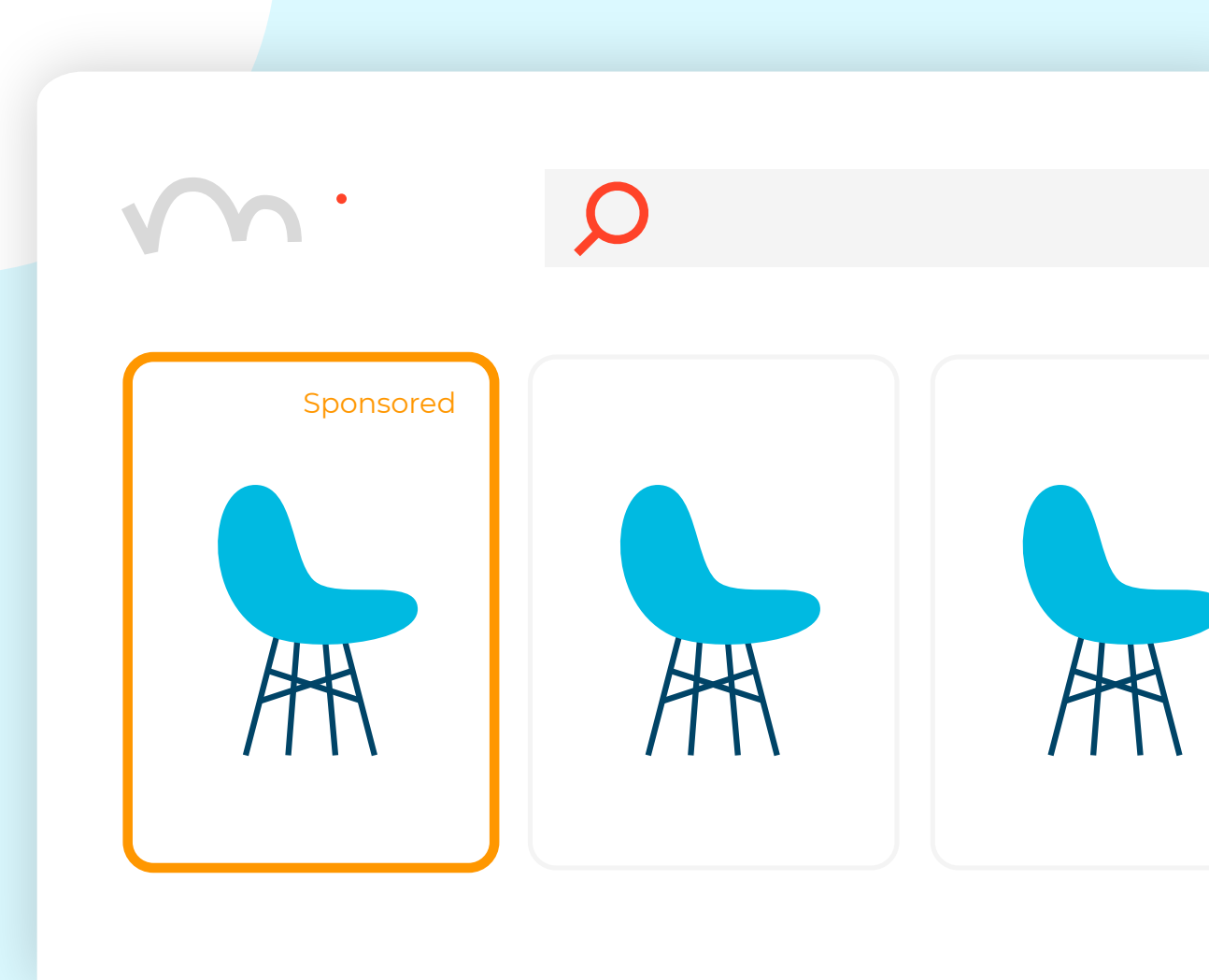
Ad APIs and SDKs are new infrastructure tools that save you from recreating the wheel when it comes to ad serving plumbing.

Think of them like Twilio and Stripe; rather than build complex system from scratch, you can outsource the commoditized infrastructure parts (like decisioning, targeting, and reporting) and focus instead on building features that make your platform unique.



Don't waste a year building your ad platform's infrastructure when you could have it in weeks

Your front-end ad platform



These are the projects your team wants to focus on

- Self-serve UI
- New targeting ideas
- New ad units
- First-party-data activation

Your back-end ad infrastructure

Auction pricing and revenue optimization logic

Tracking and reporting

Ad serving, targeting, and decisioning

Complex & commoditized, yet the bulk of what your tech team will spend recreating from scratch



02

Main considerations for building from scratch vs building faster with ad APIs

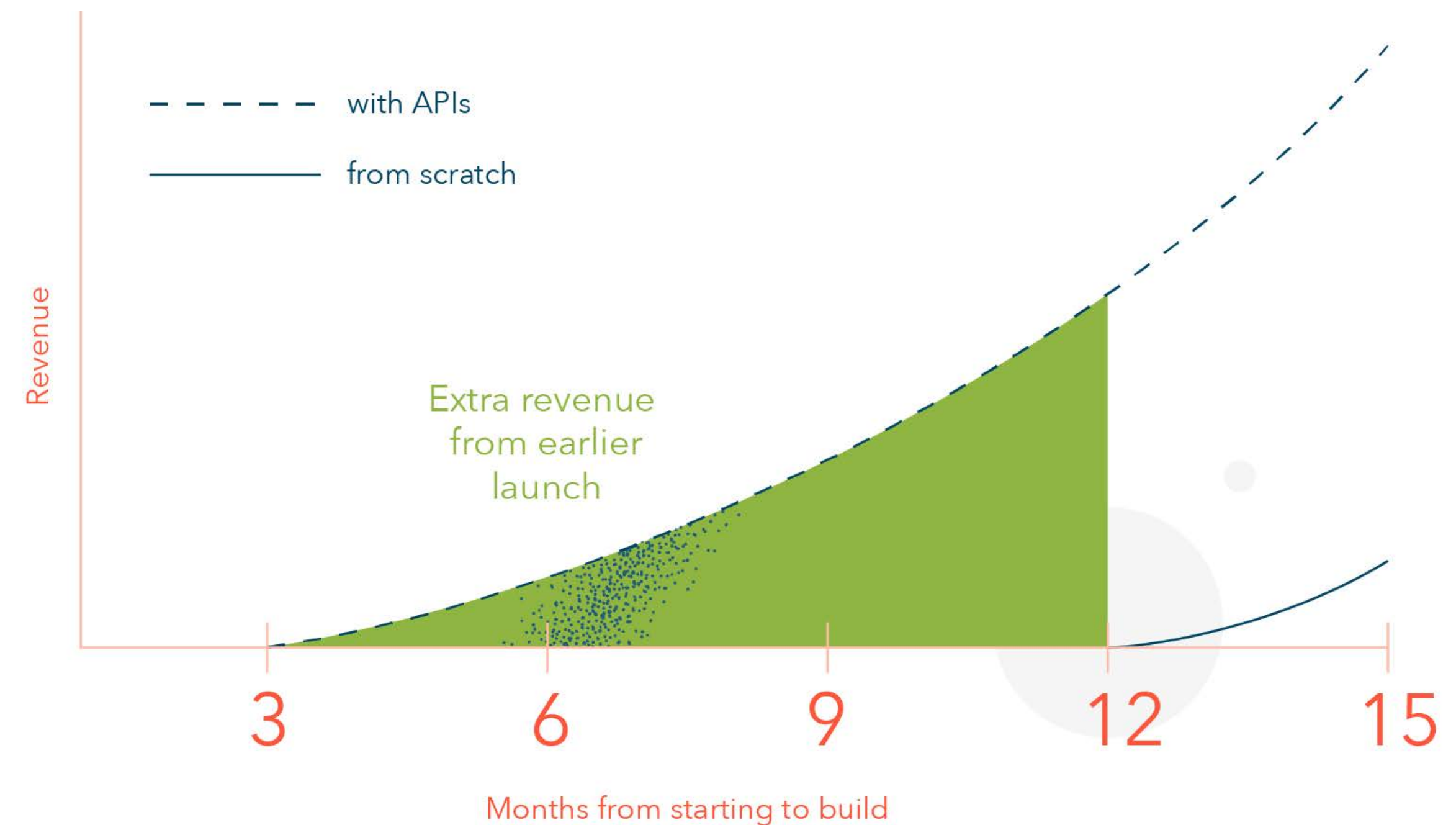


Time to market

Ideally your ad platform was released yesterday, as every day it's not live is a day of lost revenue.

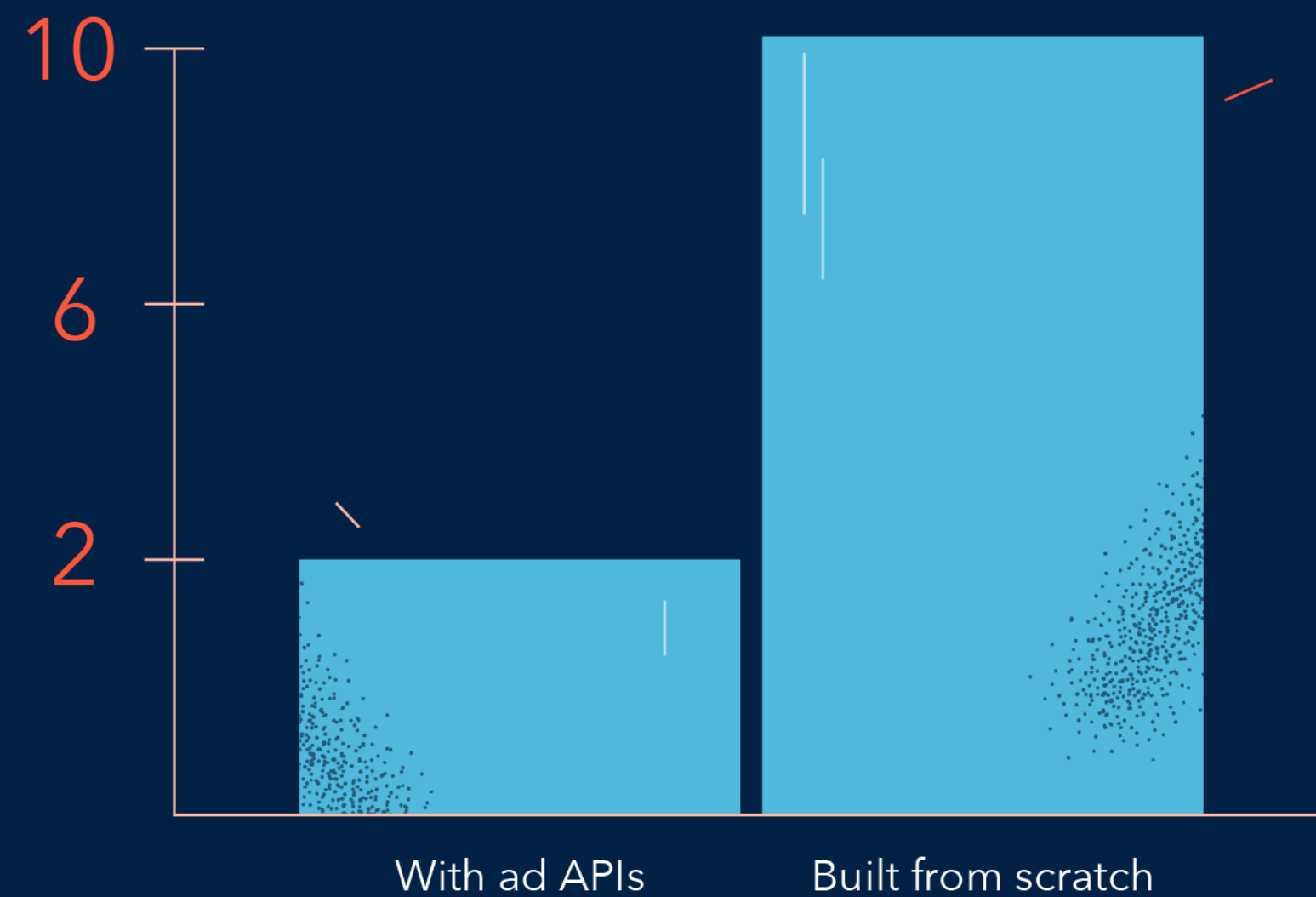
Generally an in-house build will take at least 9-12 months and closer to 18-24 for a full-featured ad product.

Ad APIs, meanwhile, help you cut down that time by 90% – enabling you to release an MVP in 1 - 3 months.



Engineering resources

Average # of engineers needed



How many engineers will you need? Where will you find them?

Your team may be bright, but ad servers are complex; without prior experience, the team may struggle.

Plus, you'll have to either pull engineers off of other projects or spend precious resources poaching ad engineers from Google.

Ad APIs address this problem: rather than needing 10+ experienced ad engineers, you can build a full-featured platform with 1 - 3 (and no ad tech experience is required).

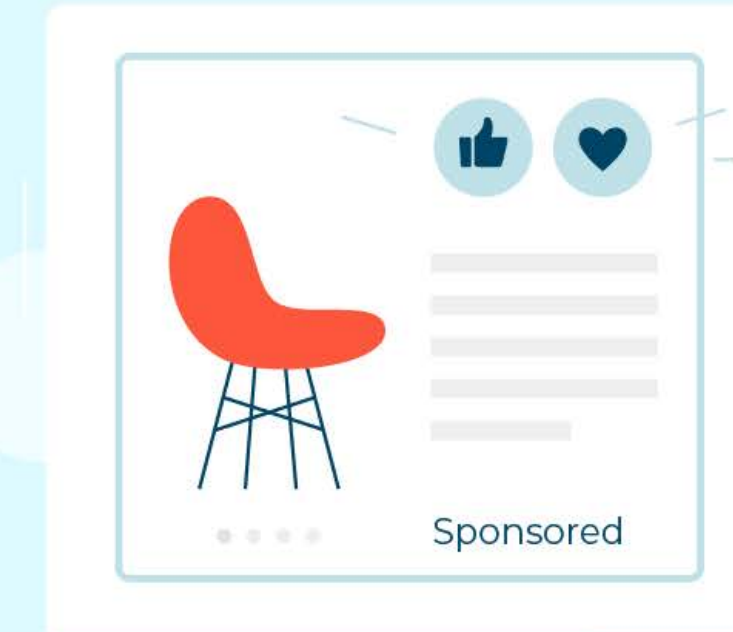


Scope and customization

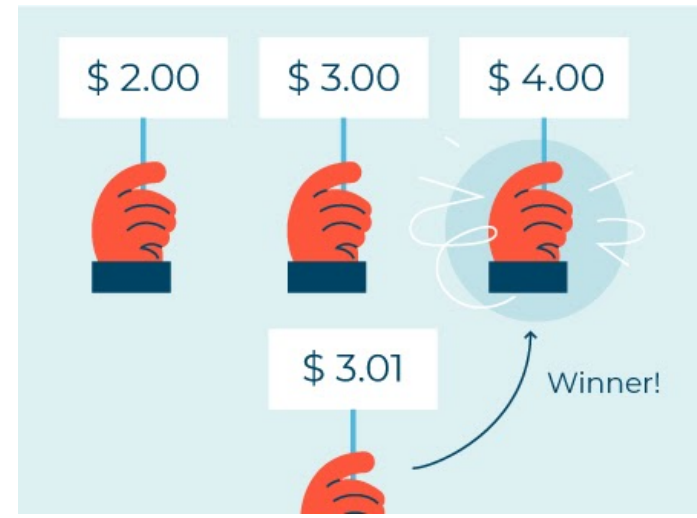
A new ad product doesn't automatically equate to more revenue. Your platform will compete for budget spent elsewhere.

And thanks to the ad platforms of Facebook, Amazon, and Google, advertisers have come to expect certain features. If you don't have them, they'll look elsewhere.

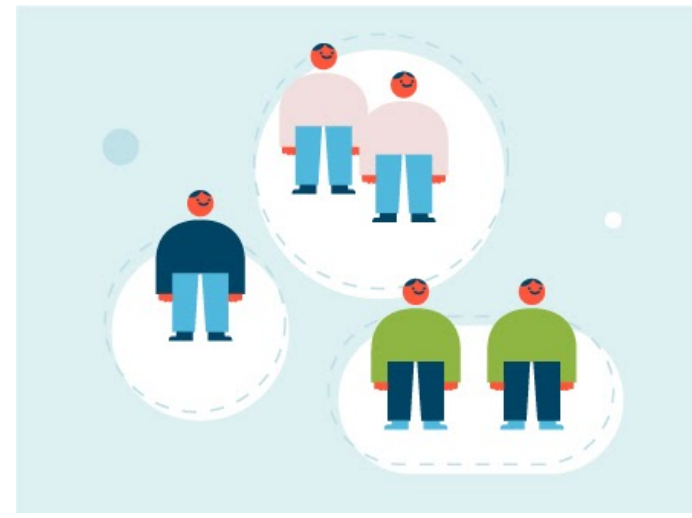
The next slide highlights a laundry list of ad features that any successful ad platform needs.



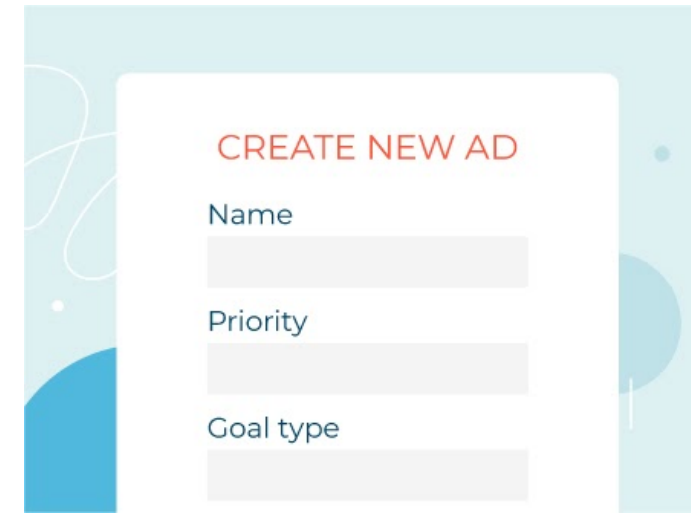
Ad features you'll want to build – sooner rather than later



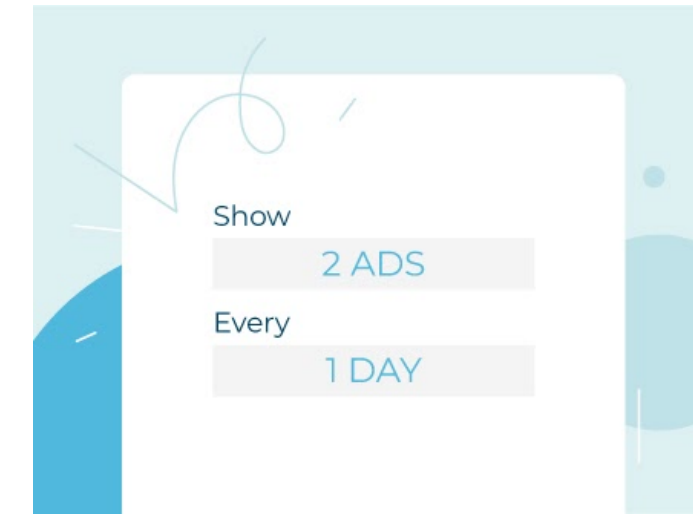
Auction pricing



First-party data



Self-serve UI



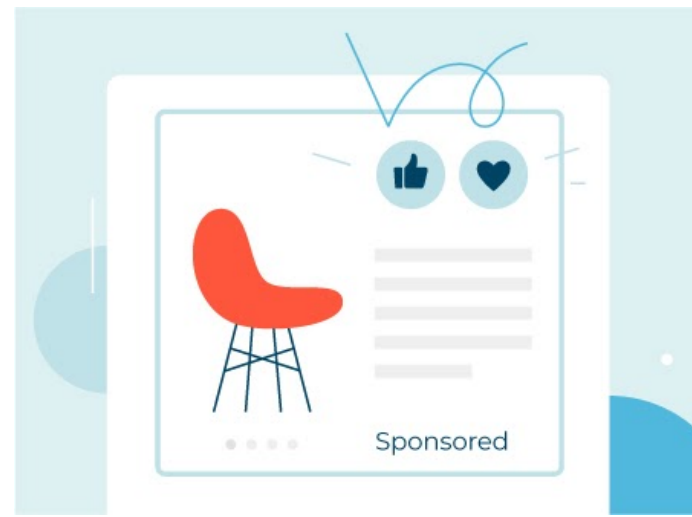
Frequency capping



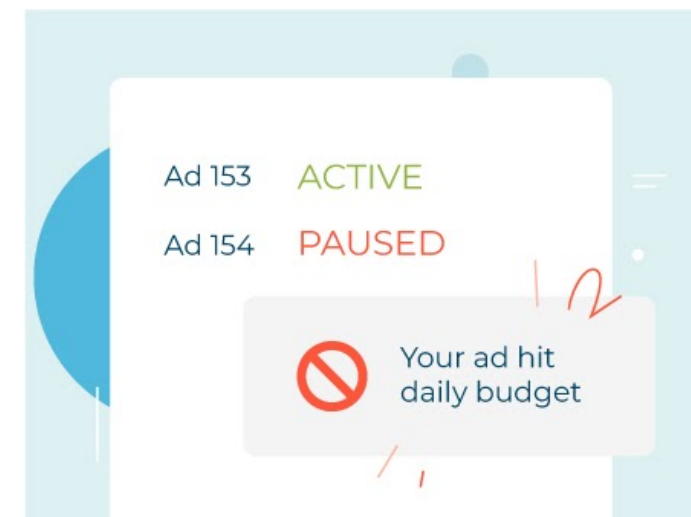
Reporting dash



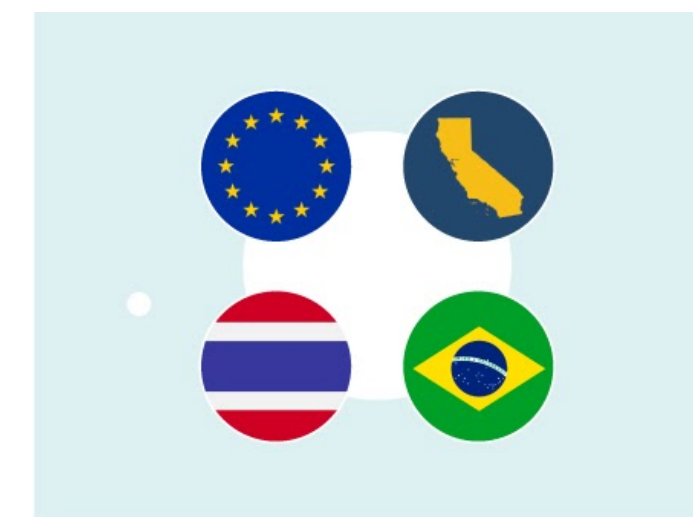
Geo targeting



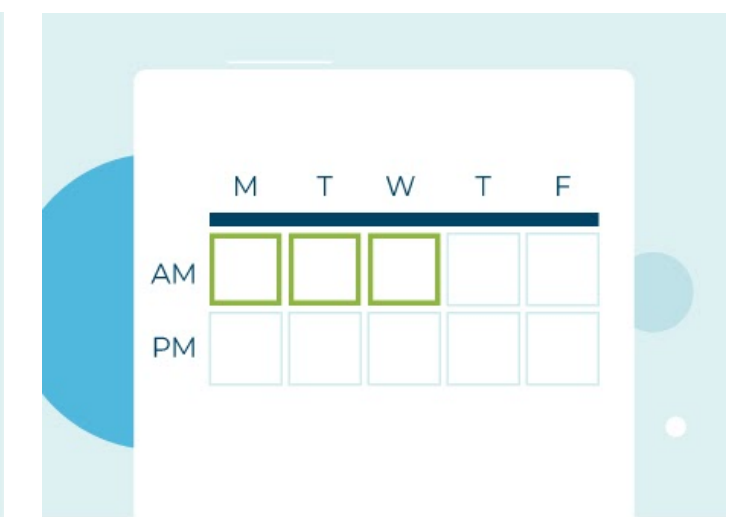
Event tracking



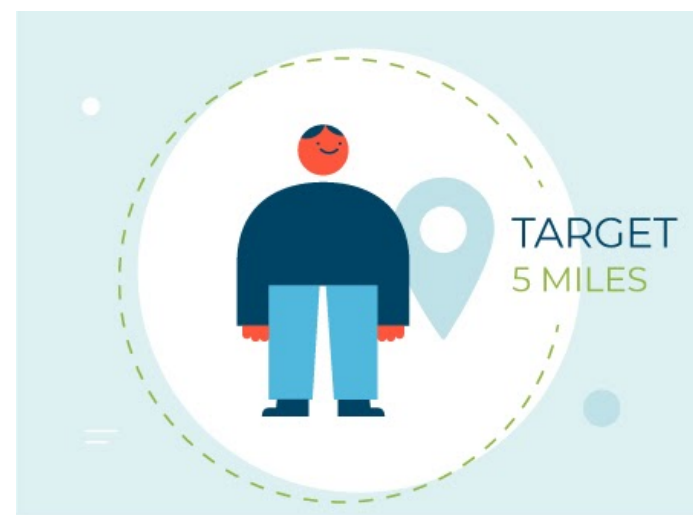
Budget capping



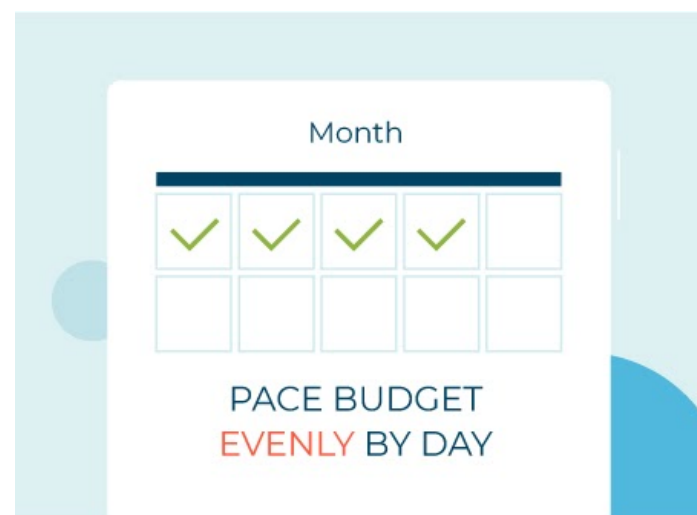
Privacy compliance



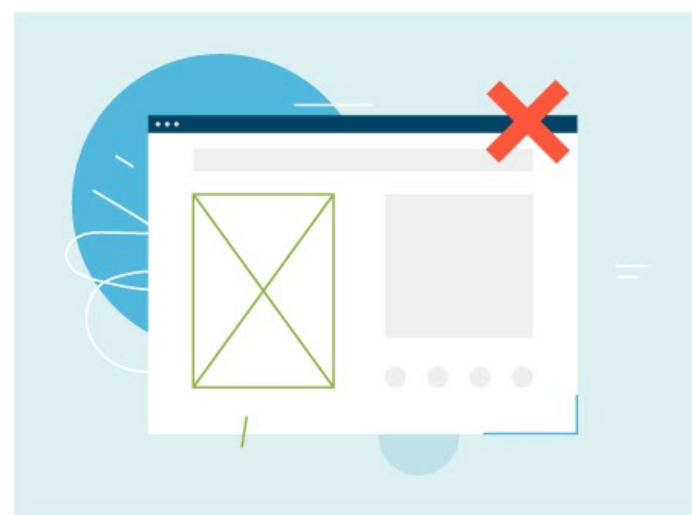
Day parting



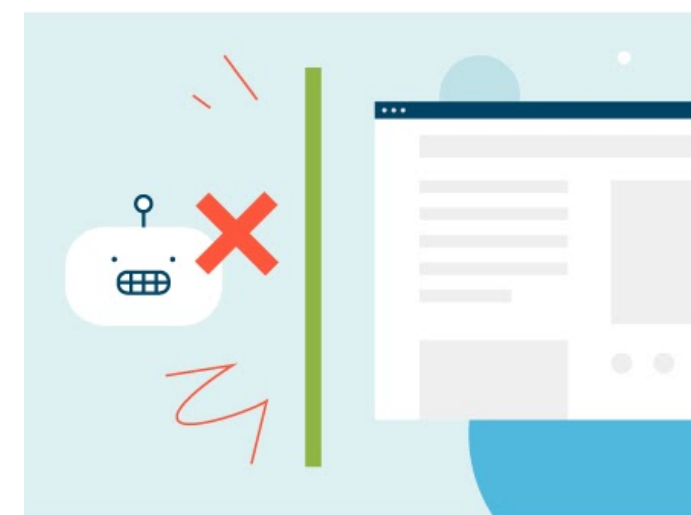
Georadius targeting



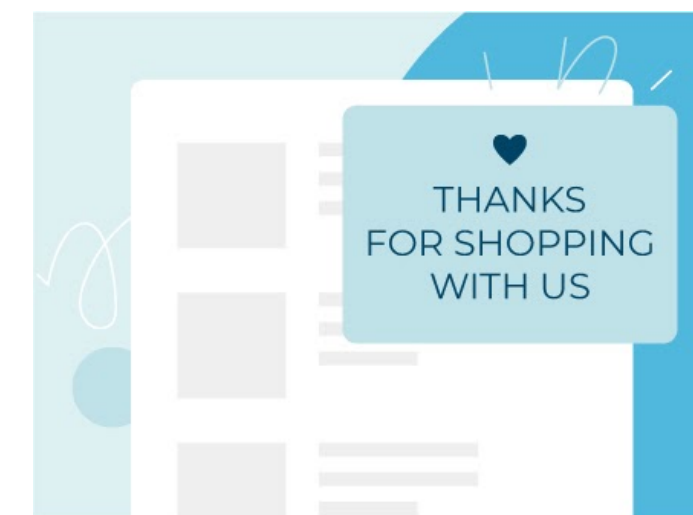
Pacing



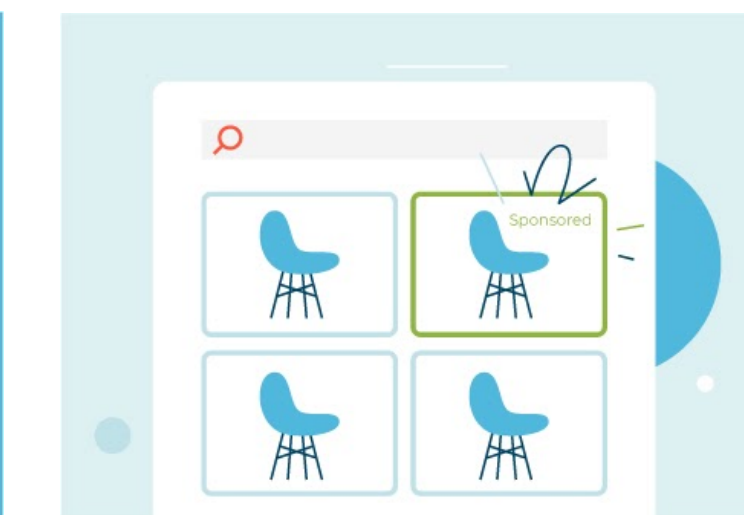
Ad blocker work-arounds



Bot filtering



Conversion tracking



Search targeting



Ad APIs provide scope & customization without all the work

Understanding each feature is daunting, and if each takes months to build, how do you prioritize?

This is where ad APIs provide substantial value.

Rather than spending cycles designing each new feature, you get turnkey access to them.

Integrating, say, day-parting targeting may take a month to build internally, but with ad APIs could be enabled in seconds.

Ad APIs, then, marry the customization of an in-house solution with the ease of an out-of-the-box tool, enabling you to quickly build exactly what you want.



Scale and server costs

Focus resources on growth

“What else can we turn into sponsored content?”

“What should our self-serve advertiser portal look like?”



Not on uptime

“Will too many ads crash our system?”

“Whoa - why did our response times skyrocket?”

What happens if advertiser adoption exceeds expectations, and the system can't handle the ad requests?

In that case, you'll likely see:

1. Slow ad response times
2. Skyrocketing server costs
3. Systems that crash, leading to lost revenue or refunds

When this happens, now your tech team is scrambling to fix uptime issues – versus building revenue-driving new features like a self-serve advertiser portal.

On the other hand, you could outsource this work to an ads API partner, whose business is built on handling scale. You could even work uptime guarantees into the SLA.

And if server costs skyrocket, that would affect their bottom line, not yours.



Certifications, memberships, and tools

Nobody enjoys applying for certifications and researching third-party tools.

Designing an ad server, however, requires a lot of it:

- SOC Type 1 audits: For financial reporting — takes months and ~\$30K
- TAG Datacenter anti-fraud lists, \$10K/yr
- IAB Spiders and Bot List, \$14K/yr
- Backend tools: device targeting databases, status alerts, server monitoring, IP databases, and so on, \$50K+/yr

If you want to forgo these chores, use ad APIs, as most of these services will be baked into the product.



Privacy compliance

Privacy laws like the GDPR (EU), CCPA/CPRA (California), and LGPD (Brazil) are popping up everywhere.

Violating these laws is a PR nightmare, and the GDPR alone could cost your company 4% of its yearly revenue.

To mitigate this risk, your team will need to stay up-to-date with every new law, which takes resources away from other projects.

Working with an ad API partner simplifies privacy compliance: they'll do the research, advise you as needed, and automatically update the system so it stays compliant by default.



Costs – both building and maintaining it

As you estimate the costs of an in-house build, some considerations are:

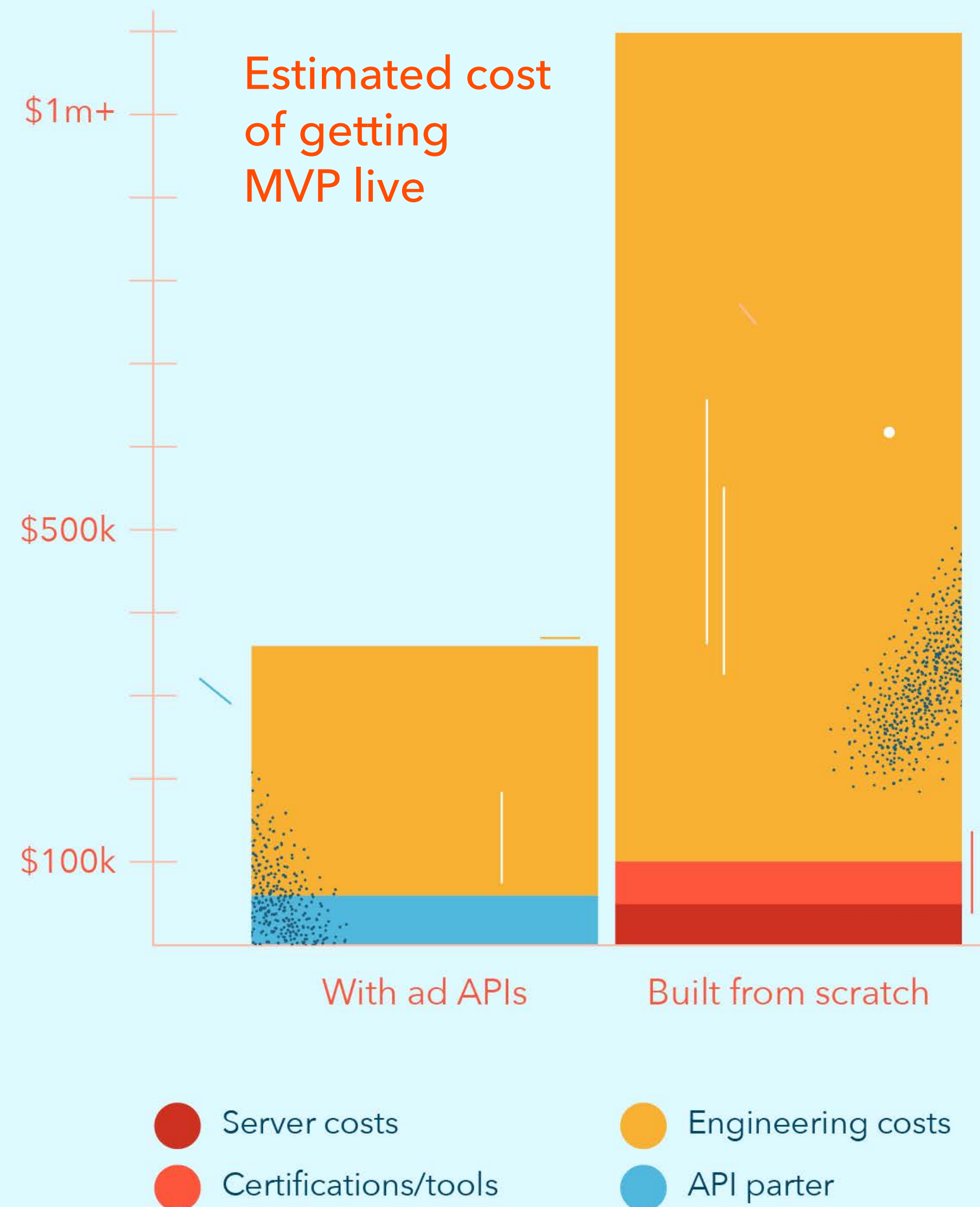
1. How much will it cost to build it?
2. What about maintaining it?
3. How much will I pay in server costs and backend tools?
4. How much is the vendor?
5. What extra revenue can I drive by launching it sooner rather than later?

	Build yourself	Ad API solution
Build costs (engineer salaries)	~\$1M - \$2M (8+ engineers over a year)	\$100K - \$200K (2- 4 engineers over 3 months)
Maintenance (engineer salaries)	\$1M+/year	\$200K - \$400K
Other (servers, certifications, tools)	~ \$100K / year	Included for free
API vendor	N/A	\$60K - \$120K / year
Revenue in first year	0-3 months of revenue	9 months of revenue

This highlights a potential breakdown for a robust platform powering 100 million monthly ad requests.



There's a substantial cost savings to building with ad APIs



There's no need to spend millions recreating the wheel and building ad serving infrastructure from scratch.

Connect with ad APIs to power the complex infrastructure aspects of ad serving, and use those engineering resources to build a unique ad product instead.



03

Build from scratch vs build faster with APIs: a summary



Build vs build faster with APIs: a summary

Consideration	In-house build	Building with ad APIs
Time to market	9+ months	1 - 3 months
Engineering resources	8+ engineers	1 - 3 engineers
Scope and customization	Flexibility to build exactly what you want	Flexibility to build exactly what you want, in a fraction of the time/cost
Scale and server costs	You pay for own server costs; need to handle scale and monitor uptime	Built into the product
Certifications, memberships, and tools	Will need to research and apply/buy. Likely \$50K+/yr for all tools needed	Built into the product
Privacy compliance	Need to research, stay abreast of changes, and implement updates	Built into the product
Build and ongoing costs	\$1M - \$2M+ per year	\$300K - \$400K+/yr



When you should lean toward launching faster with ad APIs

When you want

- To launch an MVP in weeks, not years
- To outsource the complex parts of ad serving — reporting, tracking, and decisioning — so you can focus on the aspects that make your ad product unique
- To easily add new features, versus spending months building each

And you don't want

- To pull engineers off of the core product (or hire new ones)
- To spend resources monitoring server costs and uptime
- To worry about privacy laws, certifications, and backend tools



04

Ad API Solutions

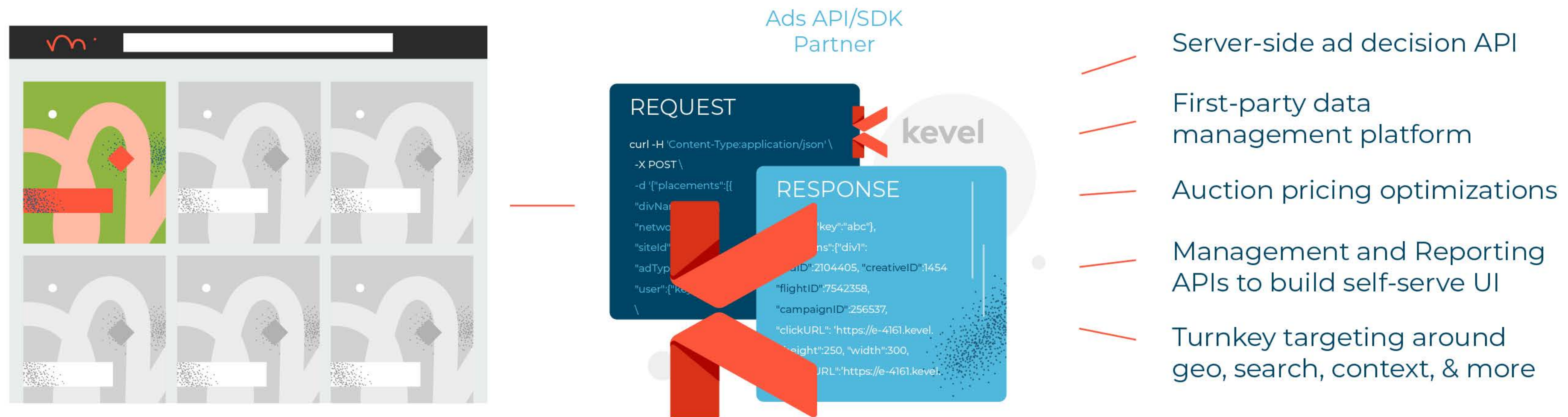


Kevel as the leading API solution

The only API-first ad infrastructure solution in the market is Kevel.

While your company's core competency isn't ad serving, Kevel's is.

Working with Kevel provides instant access to experienced ad engineers, solution architects, and APIs/SDKs that make it easy to build the exact ad product you want in just weeks.



Use Kevel's ad APIs to build the exact ad platform you want, in 90% less time than doing it all from scratch

Kevel is trusted by brands like

yelp

ticketmaster

moz://a

BED BATH &
BEYOND

wetransfer

slickdeals

Cornershop

STRAVA

LAMAR

the knot

imgur

UNITED



Take back the Internet

Kevel's mission is to help brands drive more online revenue and take back the Internet from the ad tech giants and digital monopolies.

We believe every publisher should be able to take back their revenue, user experience, and data – while growing their business through user-first advertising.



Schedule a demo and
get a free API key

