Bringing transparency to the digital ad ecosystem

Empowering publishers with visibility and control of their own web pages

White paper

The ad ecosystem: complex, fragmented and inefficient

The ad ecosystem is complex. In recent years, programmatic ad tech services have exploded, in both diversity and volume. The sheer number of vendors and intermediaries in this increasingly fragmented ad tech supply chain has translated into staggering inefficiencies: According to **WARC**, for every dollar pushed through the ecosystem by advertisers, only 40 cents are received by publishers – and that's presuming no fraudulent activity. The net result of these inefficiencies is two-fold:

(1) Advertisers' working media expenditure does not extend their customer messaging reach as intended; and

(2) Funds earmarked for publishers' content is instead being captured by tech intermediaries (Figure 1).

Allocation of 2017 programmatic ad fees worldwide

US$ billions, current prices

Figure 1: Tech intermediaries capture the lion's share of money in programmatic ad buys.

Note: Figures are illustrative as they assume a 'one size fits all' approach to programmatic buying. Stacks will vary and all spend figures bar MAGNA's publisher total of $25.4bn are drawn from averages. MAGNA's total excludes search and social.

SOURCE › WARC, *Global Ad Trends March 2018*

The digital ad ecosystem: complex, fragmented and inefficient

Ad requests get directed and re-directed, waste and mis-targeting abound, and discrepancies and fraud proliferate… all due to lack of transparency. For example, many exchanges charge supply and demand partners or demand platforms upcharge data fees without disclosing the fees. It's a losing proposition for both the advertiser and the publisher, to be sure, but it is the web publishers who suffer most:

Ad revenues are shrinking as audience engagement declines

Content is king, as they say. Publishers focus on offering compelling content, and strong user engagement is the hallmark of a successful publisher brand and website. But, the user experience and page views are both comprised of the content + ads experience (not just the content itself). When ads are delivered programmatically, the publisher cedes control of the ad targeting and delivery to third-party programmatic partners. Unfortunately, publishers are still held accountable for their audience experience. The lack of control over ad targeting and delivery means that a publisher's brand and business can easily – and swiftly – be negatively affected. Intrusive ad formats, re-targeting of ads and slow page loads (due to an overwhelming number of third-party requests) have led to a poor user experience, driving users to take independent action to block ads and data collection – and leading to loss of revenue for the publisher.

To make matters worse, publishers are accountable for meeting compliance laws and requirements – even through the use of third parties – but have no way to ensure compliance when any third-party can freely take user data and use, store or share it at their discretion. This lack of transparency gives rise to malvertising and other malicious threats.

The ad ecosystem: complex, fragmented and inefficient

The nature of programmatic advertising poses an intractable problem for publishers

The very act of allowing third parties to interact with a publisher's users and content results directly in a loss of control – not only of the user experience, but also of the liquidity and revenue generation. Sharing user data can, in the short term, generate increased revenue and CPM for publishers. The related data leakage effect, however, allows valuable users and segments to be targeted on competitive sites, ultimately drawing revenue away from the publisher. Header bidding makes this problem exponentially worse, because each auction involves multiple exchanges, multiple DSPs, and multiple data management platforms (DMPs). This sharing of personal viewer preference data happens with every user, accessing every publisher's content… every single time.

The ad ecosystem: complex, fragmented and inefficient

The proliferation of ad formats and channels dramatically increases management complexity

Ads do not just appear as text or images on web pages anymore. In an effort to capture consumer attention, ad formats such as video, rich media and native ads have proliferated in recent years. Add to this the explosive growth of mobile advertising, and it's easy to see why managing ad operations has become such a complex and difficult exercise.

With declining revenues, diminishing audience engagement, and rising complexity of ad operations, it's clear that web publishers have lost the ability to see and control what happens on their *own* pages, to their *own* audiences. In order to be successful, they need visibility into and control of the ad ecosystem–particularly, all of the supply chain members who are collecting their users' data. This will enable publishers to understand their users' preferences; get control of their audience data; discover compelling ways to monetize their content; protect users and maintain user trust; and deliver effective protection against fraud.

A revolutionary approach: the Apomaya Unity Hub™

The Apomaya Unity Hub is an innovative new way to connect digital content providers with advertisers, putting publishers back in control of their users' experience and helping to bring transparency to the ad tech supply chain. Through a suite of complementary services, the Apomaya platform enables the publisher to be the first-party intermediary for the entire end user content experience, including the extensive ad and data delivery ecosystem. With Apomaya, each publisher can control all interactions between its content and its users, as well as all interactions between its users and third parties. As such, publishers are empowered to make real-time decisions as to how they engage with their users, as well as what information they elect to share with third parties.

How it works:

The Apomaya Unity Hub sits in front of the publisher's origin website as a cloud-delivered service and can be enabled with a simple DNS change or in conjunction with existing CDN providers. Based on the publisher's preferences, the platform's patent-pending Apomaya Transaction Traversal™ technology *selectively* and *instantly* rewrites all responses from the origin site that contain third-party links to the ad ecosystem. This is done in such a way that the user's device (browser) requests, bound for the third party, are actually sent to the Apomay Unity Hub within the publisher's domain, which maintains a map of all such link rewrites. The platform then transparently bridges these requests to the mapped third party. Responses from the third party are also handled by the Unity Hub, to ensure that all subsequent requests for the third parties in the ecosystem are rewritten to first party – all in real-time. The data exchange for all parties involved in the experience delivery: all third-party IDs are mapped to the first party's ID and propagated seamlessly through transactions – giving each publisher control over its own data.

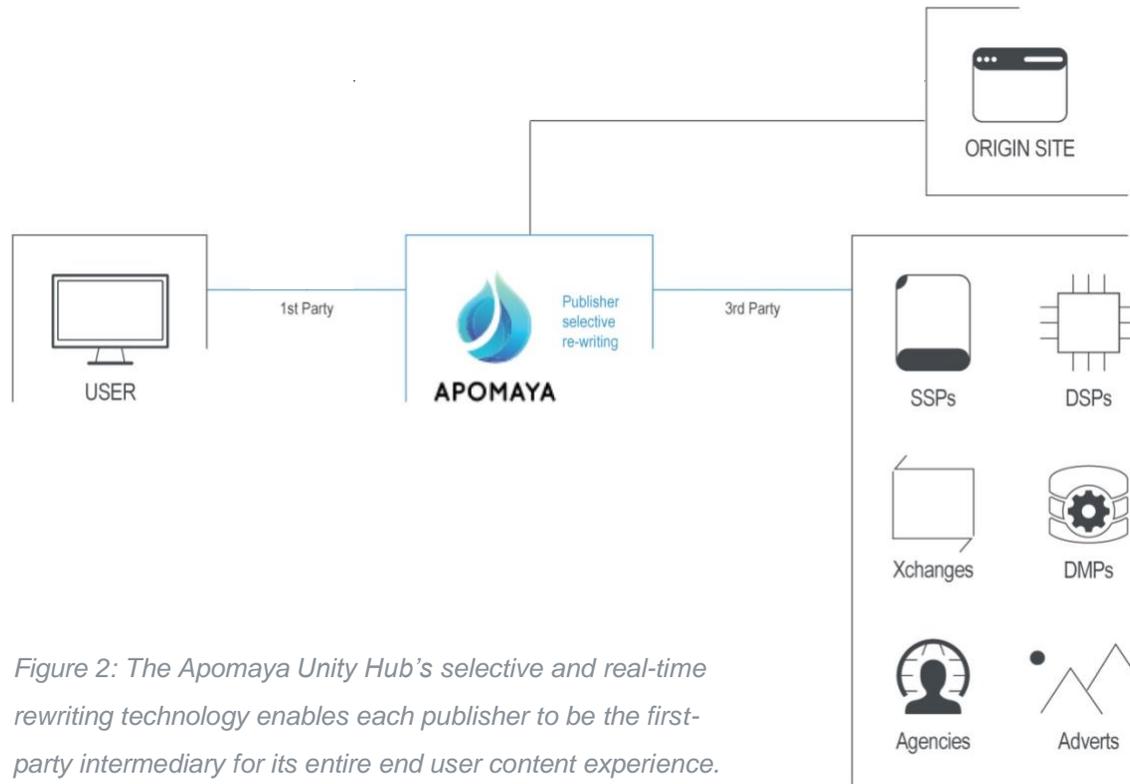# A revolutionary approach: the Apomaya Unity Hub

Figure 2: The Apomaya Unity Hub's selective and real-time rewriting technology enables each publisher to be the first-party intermediary for its entire end user content experience.

The sheer power of Apomaya's real-time, selective rewriting capability – converting all third-party interactions to a first party interaction – cannot be overstated.

Its location in the network and powerful, intelligent software enable the Apomaya Unity Hub to effectively and efficiently play the role of the publisher's go-between: Publishers can see – on a per-ad basis – which third parties are included, by whom, and in

what order. Selective rewriting of third party tagging and tracking of consumer data by the Apomaya Unity Hub endows publishers with full control over these third-party inclusions, and – importantly – greater control over their own users. With this newly acquired visibility into the complete "Content + Ads" experience, publishers are empowered to truly optimize ad interactions for their viewers.

The Apomaya Unity Hub gives web publishers numerous key benefits:

Enhances audience engagement

Consumer preference insights. The Apomaya Unity Hub's capture and collection of consumer data, along with its ability to selectively rewrite third party tagging and tracking described above, allows publishers to better understand and engage with their viewers.

Faster page load. Apomaya's dynamic web acceleration and optimizations significantly improve page load performance, improving user experience and enhancing the viewability of ads.

A revolutionary approach: the Apomaya Unity Hub

Provides added security

With its unique position as the publisher's intermediary, the Apomaya Unity Hub offers protection against malvertising and malware or malicious re-directs being delivered in ads. In addition, the platform can filter out the click-bait ads that have become a scourge of user experience. And because it represents the publisher and offers the publisher's ad space, any ad space not represented by the Apomaya platform is, by definition, being offered by a fraudster. With their partners' participation, and leveraging the Apomaya Unity Hub, publishers can eliminate altogether fake representations of their sites.

Protects private data

In today's world of programmatic advertising, valuable user data is pilfered away by third parties in the name of better ad targeting and re-targeting. Unfortunately, this is done as a direct result of exploiting users' attention and interest in the content provided by publishers. Apomaya arms publishers with the knowledge of *which third parties* are accessing their user data and *what type of data* they're collecting. Importantly, Apomaya also enables publishers to block access to this valuable information.

Simplifies ad operations

Apomaya empowers publishers to measure the effectiveness of all display ad formats delivered to their audience through a single interface – including text, image, video, rich media, and native ads. Apomaya also enables full visibility and control of ads served to viewers who are browsing via their mobile devices.

A revolutionary approach: the Apomaya Unity Hub

Seamlessly complements the existing programmatic ecosystem

The Apomaya Unity Hub was designed to work seamlessly and transparently with the existing programmatic ad ecosystem. No additional infrastructure investment or per-transaction coordination is required – by the publisher or any member of the ad tech supply chain. For added simplicity, the platform has been tailored for various content delivery scenarios: It can be deployed onsite, via the cloud or integrated with a CDN. Apomaya is committed to maintaining full compatibility with all ads, ad formats and popular browsers – further ensuring that, once configured, the platform is invisible and zero-touch to the viewer, ad tech and publisher.

A revolutionary approach: the Apomaya Unity Hub

As described above, the complex, fragmented and inefficient nature of the programmatic ad ecosystem has had a significant negative impact on web publishers. They have lost the ability to see and control what happens on their own pages, to their own viewers. The Apomaya Unity Hub is a revolutionary new way to connect publishers with advertisers, helping to bring transparency to the ad tech supply chain. Apomaya endows publishers with the requisite transparency and control over their audiences, delivering a secure, accelerated ad experience to users, while preserving the functionality and communication of the ad tech ecosystem.

About Apomaya

Apomaya, the pioneer of Application Unification, created the Apomaya Unity Hub™ to bring transparency and control to application owners and web publishers to reveal the otherwise opaque involvement of third-party interaction and components. Apomaya turns third-party interactions into first-party through its patent-pending Transaction Traversal™ technology. With newfound transparency and control, web publishers and application owners can assess and control performance and user experience problems, troubleshoot functional issues, manage compliance, prevent malicious infestation or hijacking, and more fully engage with web visitors. Apomaya is headquartered in San Jose, Calif. For information, visit www.apomaya.com