

The Cross-Device Targeting Playbook for Display Advertisers



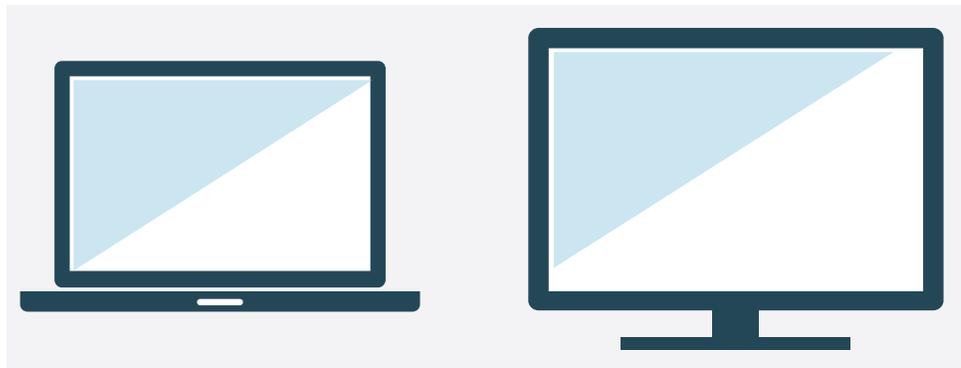
The growth of mobile is undeniable. Worldwide mobile internet ad spending is expected to nearly triple over the next four years. By 2019, over 70% of digital ad spending will be on mobile ads.¹ A vital element driving the success of mobile advertising is the ability to leverage audience data across devices, and delivering a consistent and cohesive experience to potential customers regardless of where they are or what device they're using.

In this white paper, we'll highlight some of the basics of cross-device targeting: What is it and how does it work? What role do mobile ad exchanges play? And what are some best practices for driving cross-device success?

An Introduction to Cross-Device Targeting

Cross-device targeting involves identifying a user by matching different data points across multiple devices. When advertisers refer to cross-device targeting, they're often referring to the use case where a desktop user is targeted with an ad on their mobile device, and vice versa, but that's just one of the possible examples of cross-device targeting. Cross-device actually encompasses a variety of potential scenarios:

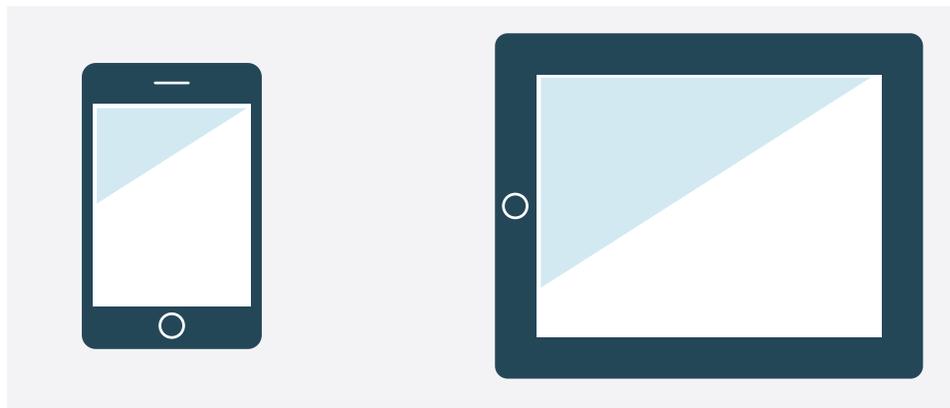
different desktop devices



Between different desktop devices. For example, a person may use a PC desktop at work and a Mac laptop at home.

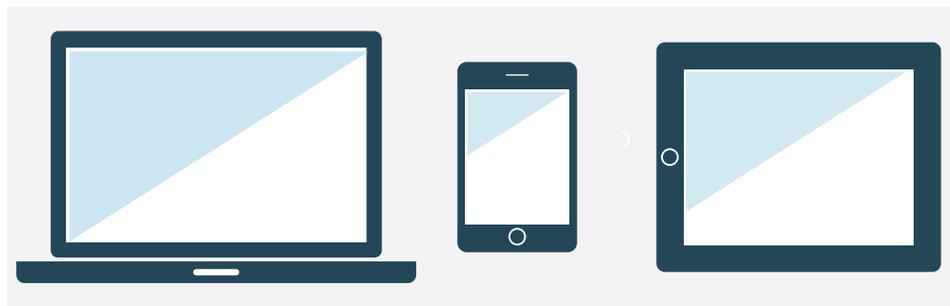
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different mobile devices



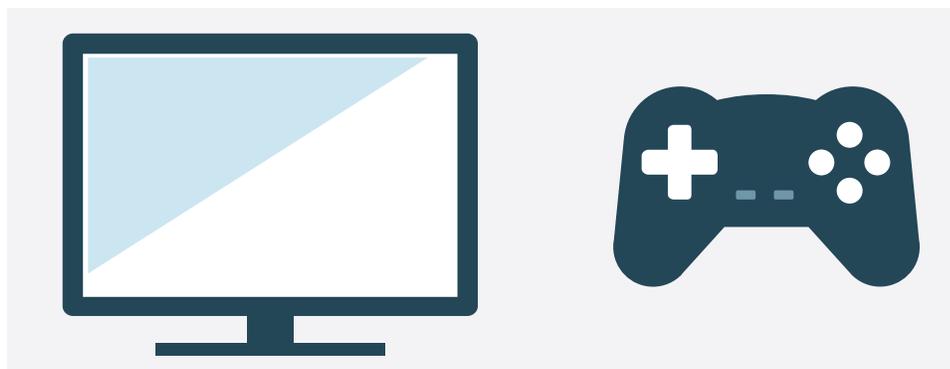
Between different mobile devices. For example, a person using a smartphone and a tablet.

desktop and mobile devices



Between desktop and mobile devices. As mentioned, this involves scenarios where a person might be using a mix of different desktop and mobile devices

“traditional” and “non-traditional” devices



Between “traditional” and “non-traditional” devices. Marketers are showing increasing interest in tying together “traditional” devices like PCs, smartphones, and tablets with “non-traditional” devices like internet-connected TVs, gaming consoles, and set-top boxes.



Matching Device IDs: Probabilistic vs. Deterministic

Matching users across different devices is the most challenging part about cross-device targeting. For example, a user accesses her phone from a coffee shop in Hoboken on Monday, her office computer from Manhattan on Tuesday, and her tablet while on the road from an airport in Duluth on Wednesday. How can an advertiser know these three instances all reflect a single user?

There are two main ways to identify and match users across devices:

- The first method relies on personally identifiable information (PII) like login information or device IDs. This is known as **deterministic matching**. The deterministic model matches users across devices using a mix of user and device IDs. User IDs include login IDs, for example when a user logs into Facebook on their computer and their phone, but can also include CRM-level data such as email addresses and customer IDs. Companies with ubiquitous apps and enormous install bases like Google, Facebook, and Twitter are best suited to do user ID matching. A few online retail giants like Amazon and eBay can also say the same. Large traditional retailers like Gap and Macy's have access to a treasure trove of email and store-level transaction data, but connecting those dots can be a little bit more challenging because they may lack device level data. The device level data that's used to identify users includes device IDs like Apple's IDFA for iOS devices and Google's Advertising ID for Android devices. Device IDs are kind of like a device-specific cookie that enables advertisers to identify and target users with in-app ads. Users can opt out of interest-based ads or limit ad tracking, as well as reset their ID, which would effectively reset the advertiser's ability to match these users.
- The second method, called **probabilistic matching**, relies on algorithms to piece together a single identity based on thousands of non-personally identifiable data points. This data can include information such as cookies, IP addresses, time of day, GPS signals, device data, or browser data. There are nuances in how matching is done using the probabilistic model. Some providers use a purely probabilistic methodology, whereas others take their probabilistic data and then match it with a set of deterministic data provided by 3rd party partners to improve the overall match rate.

The Pros and Cons of Deterministic and Probabilistic Matching

While deterministic matching is more accurate than probabilistic matching, it comes at the cost of data ownership, as the major owners of that login data prevent advertisers from using it outside of their ecosystems. But why is that such a problem?

- Imagine a universe where an advertiser has placed Google, Facebook, and Twitter tracking pixels on their site and identified a user across devices using some combination of their Facebook, Twitter, or Google logins and device ID.
- The advertiser can target that user with ads across devices on Facebook's desktop website and mobile app, and reach them on 3rd party websites through Facebook's LiveRail ad exchange. However, you can't retarget these users on Twitter, or when they search on Google through Remarketing Lists for Search Ads (RLSA). Although Facebook can currently target users on Google's ad exchange, AdX, who knows whether Google will allow that to continue in the future.
- Meanwhile, the advertiser then logs into their Twitter Ads dashboard and starts retargeting that user across Twitter's desktop site and mobile app, as well as with in-app and mobile web ads available through Twitter's MoPub mobile ad exchange. Of course, reaching that user on Facebook or Google through Twitter's dashboard is a no go.
- And finally, the advertiser logs into AdWords, and targets the user across devices using RLSAs, as well as on the desktop and mobile display through Google's ad network and ad exchange. Some customers might even be able to target some of Facebook's inventory through Facebook Exchange, but that's limited to a subset of the Newsfeed and Right Hand Rail inventory, and mobile inventory is out of the question.
- Because none of the audience matching data is shared across Google, Facebook, or Twitter, it results in messaging that could be disjointed across each platform, global frequency caps that aren't being properly respected, and potential conversion attribution issues.

As this example shows, relying purely on the major deterministic matching providers can get messy. Advertisers have to work within the realms of different walled gardens where data is fragmented and they're at the mercy of the rules that the deterministic providers set on how and where that data is used... which feels like a double slap in the face, since those deterministic providers own all the identity data as well.



In contrast, when advertisers use probabilistic matching, they can take ownership of that data and leverage it however they choose. The downside of probabilistic matching is that it has lower accuracy compared to deterministic matching. Match rates for probabilistic models can range from 60–90% based on the matching algorithm. Within that range, the match rate between different cross-device scenarios – desktop-to-desktop, mobile-to-mobile, mobile-to-desktop – can vary significantly. With that said, probabilistic matching models have made significant gains in accuracy over the past few years and are continuing to improve.

In practice, advertisers often find themselves taking a little bit from column A and a little bit from column B. It's not uncommon for an advertiser to leverage deterministic data provided by Facebook or Twitter within those platforms, but also use a set of their own deterministic data while working with a probabilistic partner to help achieve scale.

The Role of Mobile Ad Exchanges

Let's go back to the above scenario. You've successfully identified that the user who visited your website from her laptop in a Manhattan office is the same user that played Candy Crush on her phone from a Hoboken coffee shop. Great! But now what? How do you actually reach her across her different devices with your message? This is where ad exchanges play an essential role.

To solve this problem, ad exchanges (and mobile ad exchanges) emerged, bringing order and centralization to marketers buying ad inventory across millions of different websites and ad networks. Essentially, you can think of an ad exchange as a marketplace of advertisers and publishers who buy and sell ads programmatically. The exchange aggregates all the inventory made available by publishers, then provides the "floor space" for advertisers using a demand-side platform to bid on ads targeting the potential customers they're most interested in reaching. Exchanges fundamentally changed ad buying by enabling display advertisers to target visitors based on audience data and then bid on each ad impression individually in real-time based on what that visitor was worth to them.

Getting the Most From Your Cross-Device Targeting Campaigns: 5 Best Practices

Now let's go from the conceptual to the practical and check out some best practices for getting the most from your cross-device targeting campaigns. To be specific, we'll explore the mobile retargeting scenario, as that's where we tend to receive the most interest and questions.

1. Figure out what your goals are

This is **the** basic step that should kick off any marketing campaign. Determine what you want to accomplish. Cross-device targeting can help you accomplish four general goals:

1. Build awareness – Do you want to keep your brand in front of your potential customers at the right moments?
2. Facilitate acquisition – Did your visitor view a category or a product on your web site? Is there a potential next step you want to encourage?
3. Drive conversions – Did the person abandon her shopping cart? Could a little push help complete the transaction?
4. Reengage – Is there potential for reengaging with existing customers to either cross-sell complementary products or encourage a repeat purchase?

2. Segment your audiences

Creating reachable, scalable, and differentiated audience segments is necessary for any retargeting campaign, and it's no different when you're retargeting users on their mobile devices.

When segmenting your audiences, there's a balance you'll need to strike – smaller audiences can perform well, but are harder to scale, meanwhile large, generic audiences can be harder to optimize.

With cross-device audiences, though, scale is of particular concern because mobile visitors will be a subset of the total desktop visitors. The size of this audience will depend on the makeup of the advertiser's audience (brands targeting younger users will likely have a greater pool of mobile users) and the matching success rate.

For cross-device retargeting campaigns, we'd recommend starting with the following audiences:

- All visitors
- Visitors who've viewed a product or category
- Visitors who've abandoned their shopping carts
- Customers (people who've converted)

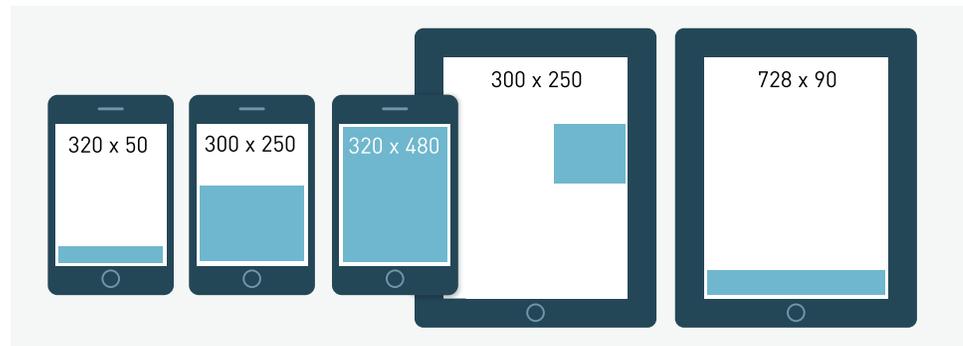
3. Choose the right ad format

If you've ever done retargeting, the previous two steps should be pretty familiar already. Step three is where some of the nuances diverge.

There are a large number of different mobile ad formats as evidenced by the IAB's mobile phone creative guidelines. They range from tiny 120x20 banners for feature phones, to the ubiquitous 320x50 mobile banner, to massive 1024x768 tablet interstitials. There's even a ton of funky sized ads like the 728x66 long banner or the 1000x66 super long banner that fit somewhere in between for the odd app with atypical standards.

However, in this white paper we'll keep it simple and focus on the two most prevalent ad formats: the 320x50 mobile banner ad and the 320x480 landscape and portrait smartphone interstitial ads.

The top popular mobile ad sizes and formats



There are two common mobile ad formats used in-app and across mobile websites:



Mobile Banners display the ad across the bottom of the screen. The most common size for mobile banners are 320x50.

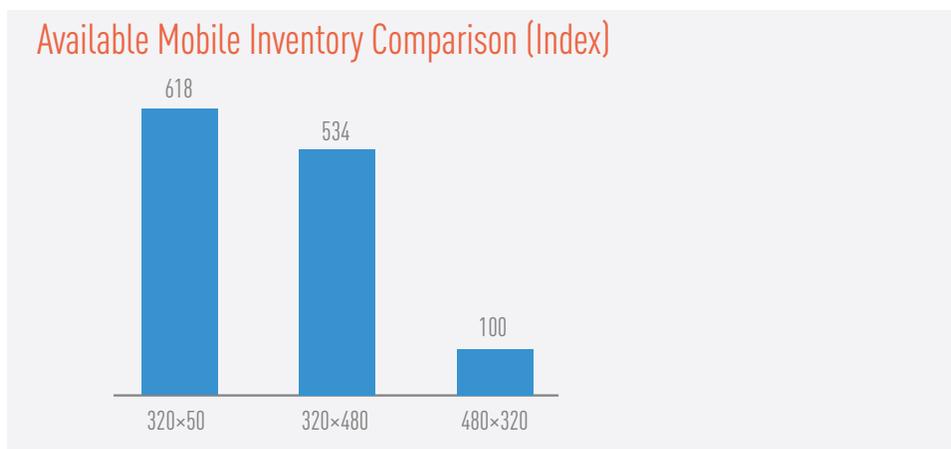


Interstitial Ads take over the screen until the user dismisses it. The most common interstitial sizes are 320x480 or 480x320.

Now beyond the obvious difference in size, the two ad formats have distinct strengths and weaknesses.

For volume or if you're budget restrained, try mobile banners.

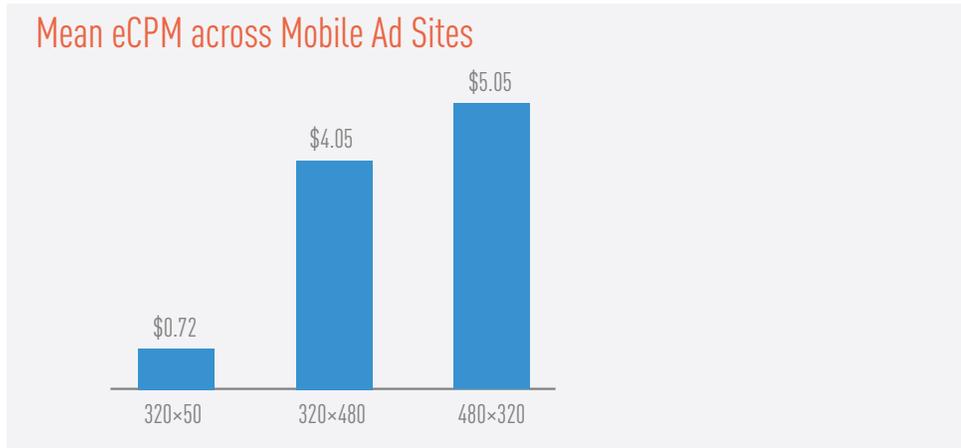
Mobile banner inventory vastly outnumbers mobile interstitial inventory. We've typically seen the number of available banner impressions outnumber interstitial impressions by 3-5x.



Data collected from a review of over 390B mobile auctions available to Marin Software and Perfect Audience in March 2015



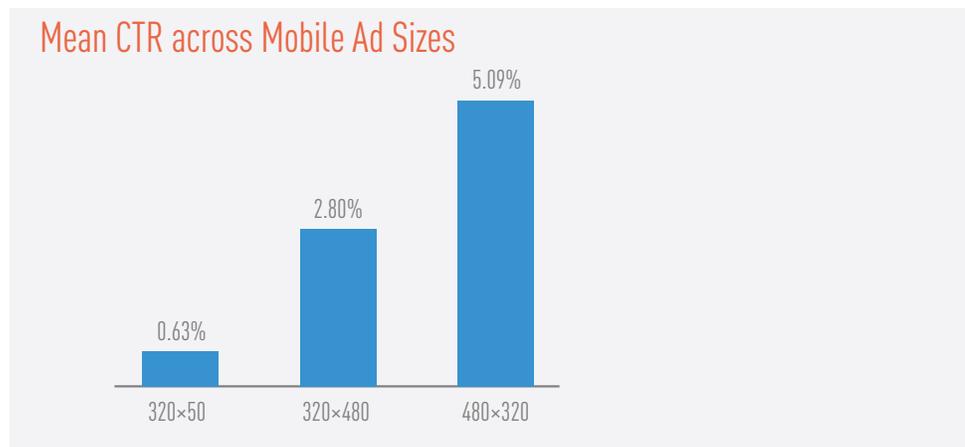
Mobile banners are also significantly cheaper than interstitials. Mobile banner eCPMs range from \$0.50–2.00+, whereas interstitial eCPMs range from \$3.00–7.00+. On average, interstitial campaign eCPMs are about 3–6× higher than mobile banner eCPMs.



Data collected from a review of over 390B mobile auctions available to Marin Software and Perfect Audience in March 2015

For higher engagement or a more powerful creative impact, try interstitial ads.

Of course, price isn't the only issue. Part of the reason mobile interstitial ads cost more is because they enjoy significantly higher engagement rates. On average, interstitial click-through rates (CTRs) are 3–4× higher than banner CTRs. Based on the campaign and creative quality, we've even seen interstitial campaigns with CTRs up to 10x higher than average banner CTRs.



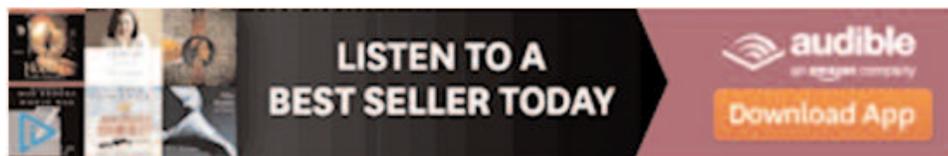
Data collected from a review of over 390B mobile auctions available to Marin Software and Perfect Audience in March 2015

The takeaway here is that there are always trade-offs, which is why it's worthwhile to test different formats to see which best address your goals. For scenarios where volume is important, or you're budget constrained, try testing mobile banner ads. If you're trying to encourage customer action, then interstitials might be the optimal format.

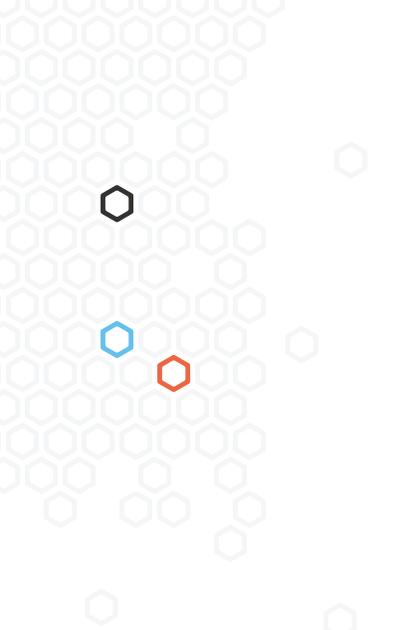
4. Optimize your creative for mobile

Creative optimization for your mobile campaigns goes beyond just repurposing your desktop banner ads. Mobile ads give you a unique chance to make an impression. The key to driving performance is simplicity and directness. You'll want to ensure your mobile ads offer the following:

- A clear value proposition. The creative canvas on mobile is relatively limited, particularly if you're using mobile banners. Keep your message simple and make sure it's relevant to the interest of your target audience.
- Use strong call-to-actions with bold designs. You have a split second to capture the attention of your audience – don't get cute with your CTAs. Use strong, directive language and make sure the CTA design stands out.
- Create urgency. Mobile can be a particularly effective means to get users to take immediate action. Try including an element of limited timing or supply in your message.
- Rotate your creative. One of the benefits of mobile advertising is that there's much less clutter and typically only one ad is shown on-screen at a time. The downside of this exclusivity is that your audience is likely to become tired of your creative much quicker. To minimize banner fatigue, try to create a few different variations of each ad and rotate them liberally.



This ad provides a clear and simple value proposition, creates a sense of urgency, and includes strong, vivid CTAs



5. Measure holistically using view-through conversions

There are a lot of good reasons for measuring view-through attribution, some of the top reasons you can read in our white paper on view-through attribution, here.

However, if you're still measuring performance mainly on a last-click model, mobile might actually be a good opportunity to also try testing a view-through attribution model. Tracking mobile view-throughs can be especially enlightening if your customers are more likely to convert on desktops or if your ad CTAs drive to a desktop-centric action.

Start Learning and Optimizing Now

Cross-device targeting will evolve at a rapid pace over the coming months and years – from better device identification methodologies, to programmatic buying opportunities, to new, exciting creative ad units. However, getting started now will help advertisers get a head start versus their competition. It will provide opportunities for gathering insights and finding out what strategies and tactics work well, and which don't. Getting started now also gives advertisers a more concrete idea of how mobile their potential customer base is, and how effective their device matching solution is at finding and targeting these users.

About Marin Software

Marin Software Incorporated (NYSE: MRIN) provides a leading Revenue Acquisition Management platform used by advertisers and agencies to measure, manage and optimize more than \$7 billion in annualized ad spend. Offering an integrated platform for search, social and display advertising, Marin helps advertisers and agencies improve financial performance, save time, and make better decisions. Marin's technology powers marketing campaigns in more than 160 countries. For more information about Marin's products, please visit: <http://www.marinsoftware.com/solutions/overview>.