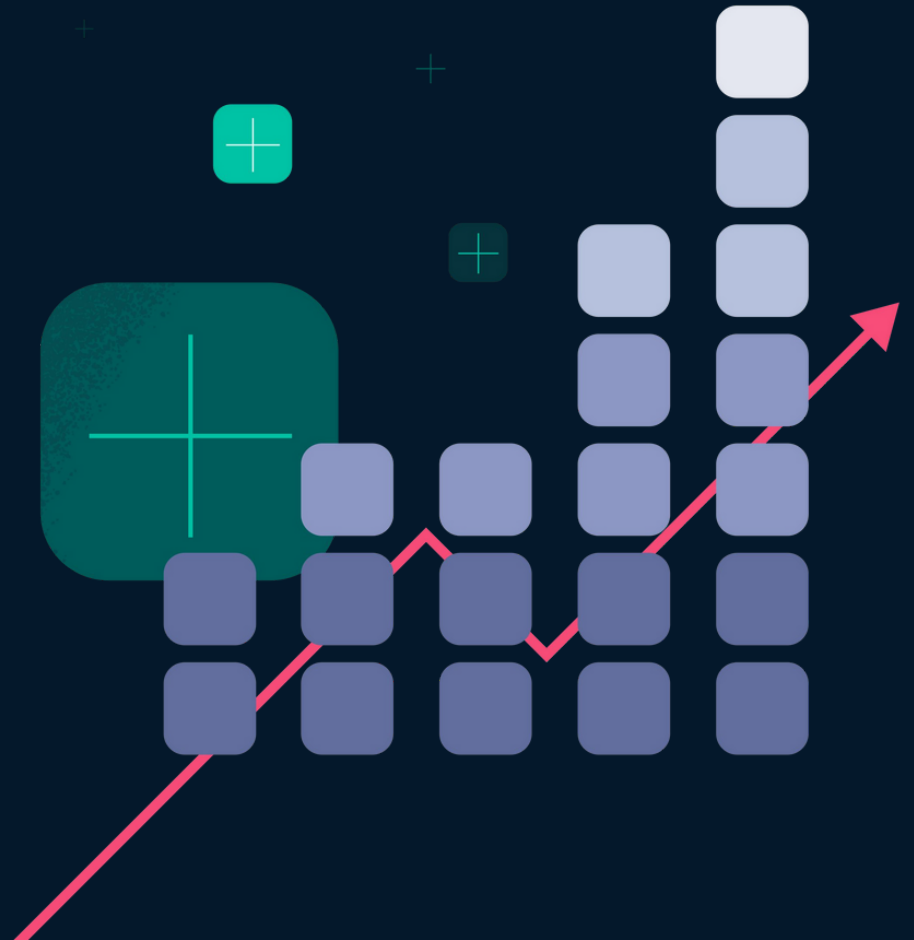



Attribution 101

Getting started with an MMP

Cairo // March 22, 2024



01. Mobile attribution
02. Reattribution
03. Retargeting and re-engagement
04. Tracker URLs
05. Deep links



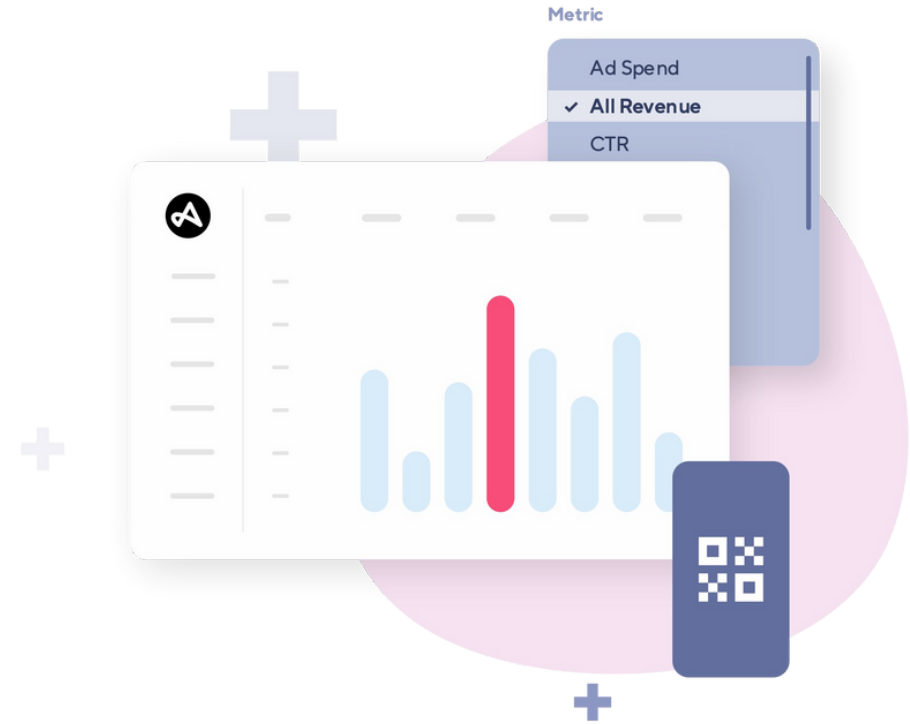
Connect the dots
between ad campaigns and
marketing results

Attribution 101

Adjust Measurement

Connect the dots between ad campaigns and marketing results

Better understand what motivates your end users at **every point in their journey**, with insights across the customer lifecycle. We provide the **intelligence and visibility** you need to make smarter decisions and grow **lifetime value**.



Attribution 101

Quick dictionary access

What is ... ?

Mobile attribution

Reattribution

Retargeting and re-engagement

Temporary attribution

Tracker URLs

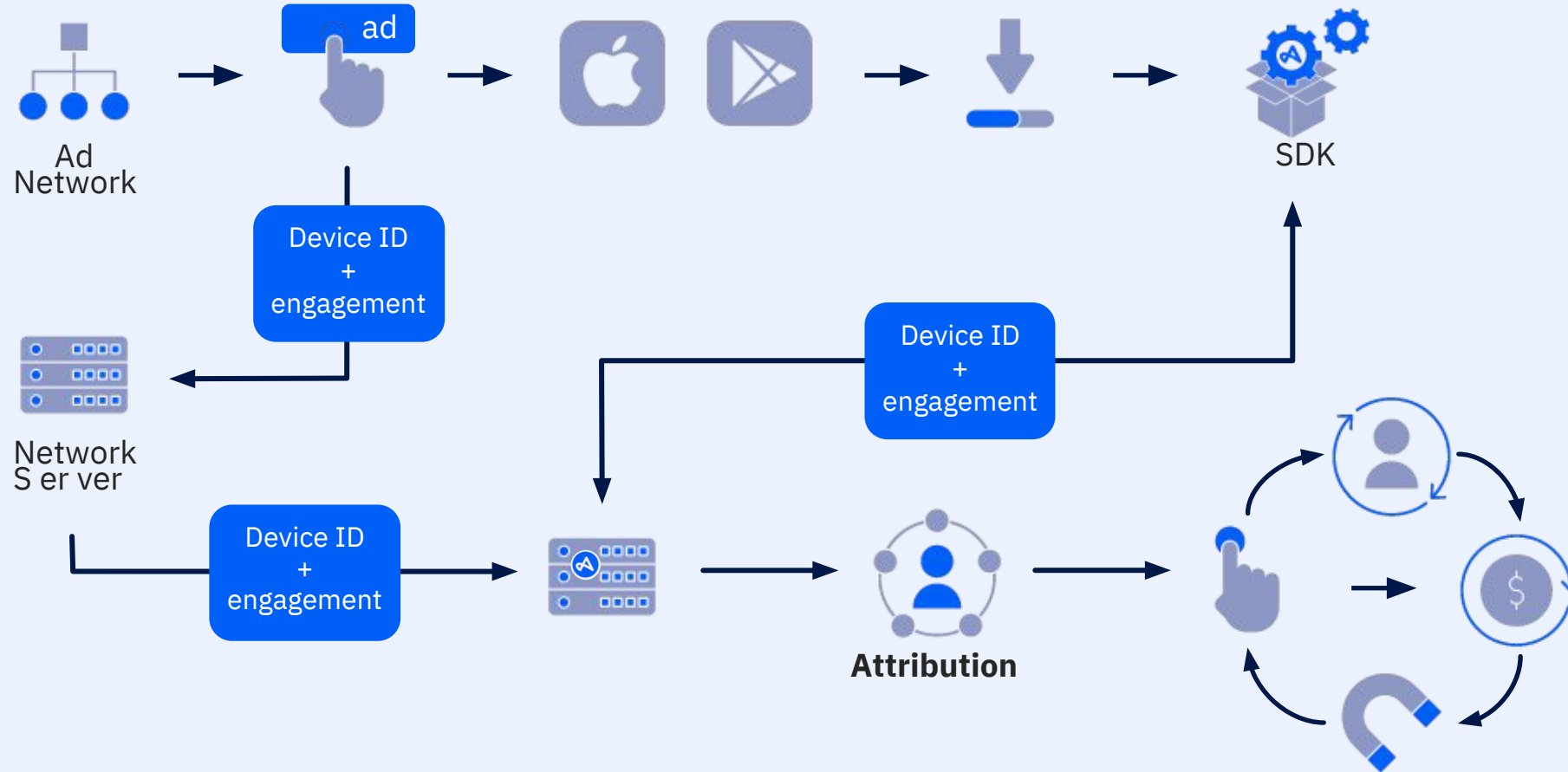
Tracker QR codes

Deep links

Attribution made smarter

Turn your acquisition efforts into scalable engagements

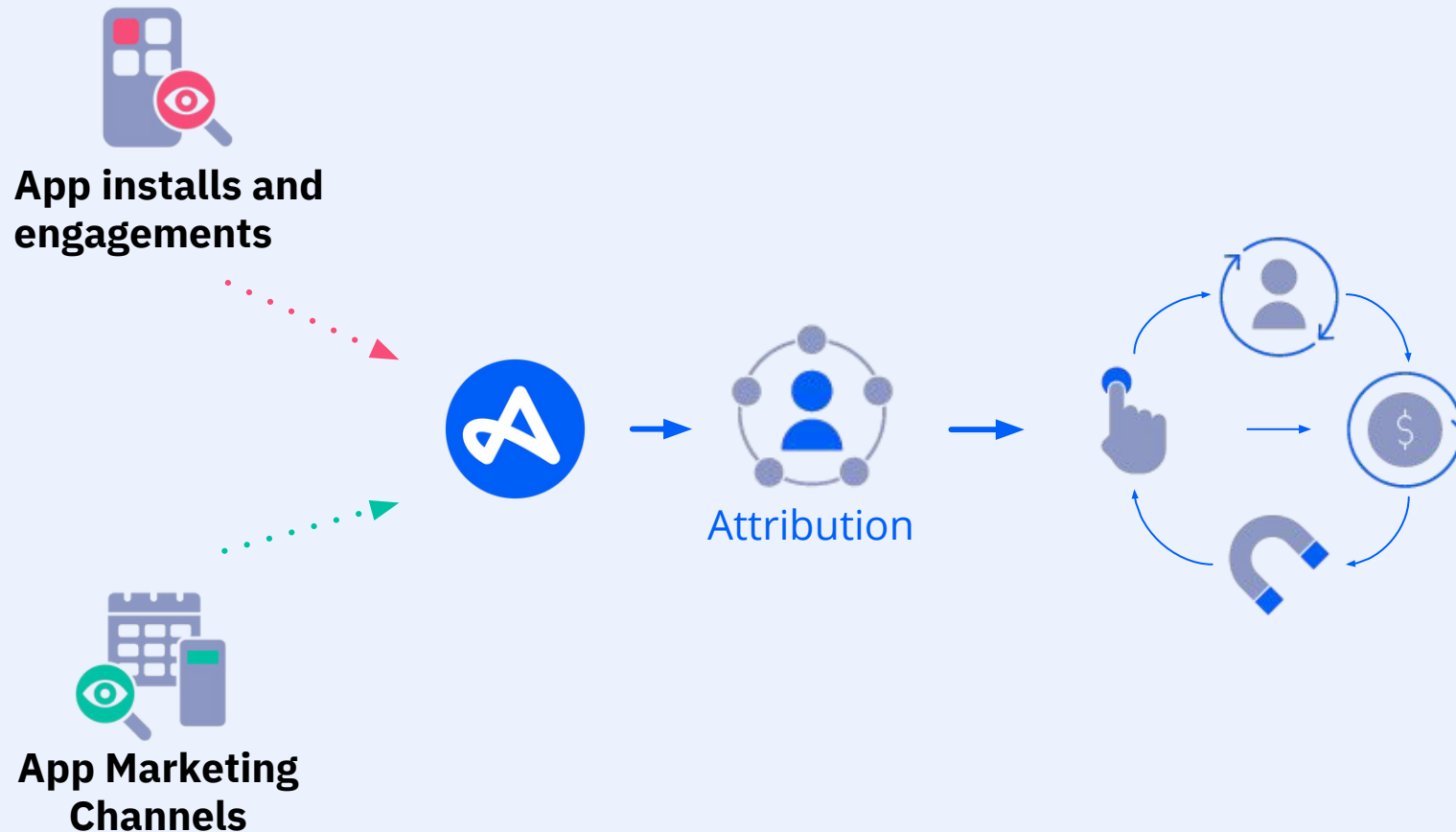
The **user journey** is technically more complex than ever



And changing privacy regulations require frequent shifts in measurement tactics

- 2012 Limit Ad Tracking on Apple
- 2013 Limit Ad Tracking on Google
- 2018 GDPR goes into effect
- 2019 Google announces the “Privacy Sandbox”
- 2020 CCPA goes into effect
- 2020 Google announces the deprecation of 3rd party cookies in 2022 (now H2 2023)
- 2020 Apple announces AppTrackingTransparency and SKAN 2 with iOS 14
- 2021 iOS 14.5 and SKAN 2 are live, followed shortly by iOS 15
- 2021 Google announces the Privacy Dashboard and other privacy features for Android 12
- 2022 Apple announces the release of iOS 16 and SKAN 4
- 2023 Apple announces the release of iOS 17 and SKAN 5

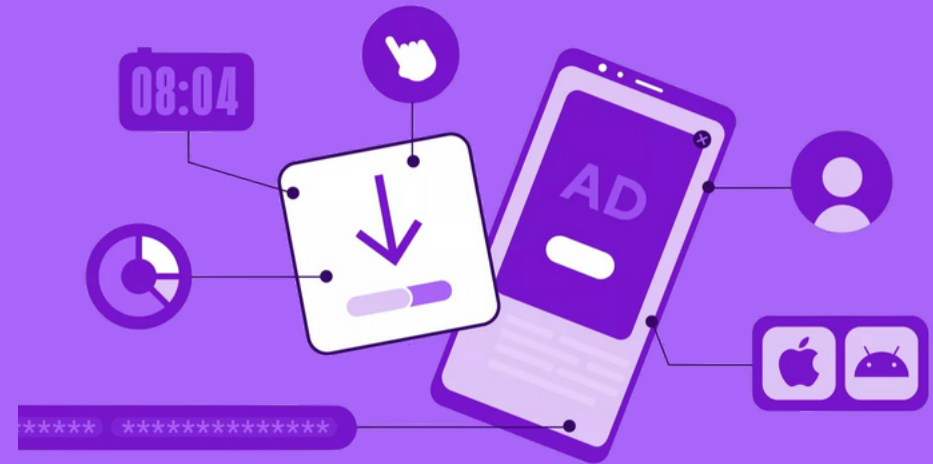
Let Adjust take over the hard work and focus on what matters



What's mobile attribution?

Connecting your mobile marketing dots with Adjust

Mobile attribution is the GPS of your marketing campaigns, providing insights into the journey that users take before they convert, matching users to the source that drove the install. With accurate tracking and reporting, you can optimize your campaigns for maximum impact and drive better ROI.



Attribution powers your UA efforts

Opening the door to growth



Measure campaign performance

Track and analyze how your mobile marketing campaigns are performing, helping you determine what's working and what's not.



Optimize your creative assets

Gather insights into which creative assets are resonating with your audience, helping you optimize your ads for maximum impact.



Run retargeting campaigns

Retarget users who have interacted with your app, increasing the chances of conversions and further engagement.



Make data driven decisions

Get empowered to make informed decisions based on data, enabling you to adjust your mobile marketing strategies for better ROI.

Every marketing channel counts

Measure the performance of all your channels

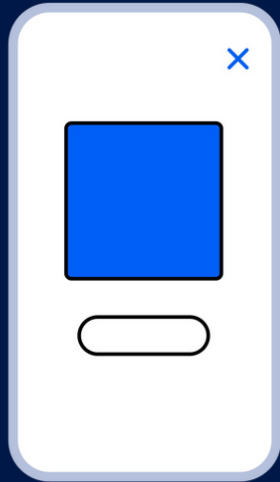
- Organic installs
- Paid campaign driven
- installs TV/CTV
- SMS
- QR codes
- Email
- Push notifications
- Web
- Cross app promotion
- Referrals
- Earned media
- Influencer tracking

Ad Formats

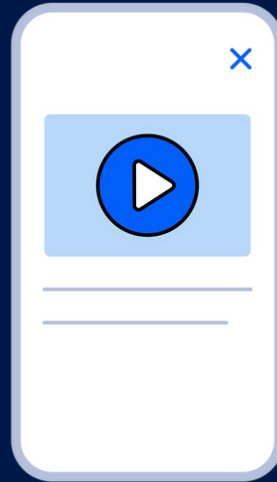
Attribution follows **engagement**:
eyes and fingers on screens



BANNER



INTERSTITIAL



VIDEO



NATIVE



PLAYABLE ADS

Precision of user journey insights

Adjust supported attribution methods



Deterministic

Most accurate attribution method based on Advertising IDs, Device IDs and Adjust retags.



Probabilistic

Fallback attribution method based on device details according to user privacy preferences.



SKAN

Apple's own attribution framework for install and reinstall attribution without user-level data.

Mobile devices attribute differently

Key attribution differences across platforms

Stores

Android: Google Play Store

For all android devices traditional attribution is performed. **gps_adid** is used for deterministic attribution.

Huawei: AppGallery (10.4+)

For all Huawei devices traditional attribution is performed. **Huawei Referrer API** used for deterministic attribution.

IDs

Open Anonymous ID (OAID)

OAID is readable on all devices using the **MSA SDK** or **Huawei Mobile Service** (HMS) on Huawei devices.

IMEI/MEID - China only

Only available for China. As **OAID is not supported** on every device, **IMEI tracking** needs to be setup for each app.

Apple

iOS 14.4 and earlier

Traditional attribution is performed leveraging **deterministic** (when IDFA available) and **probabilistic** approaches.

iOS 14.5 and beyond

SKAN handles all iOS 14.5+ attributions.

Flexibility at your fingertips

Attribution waterfall

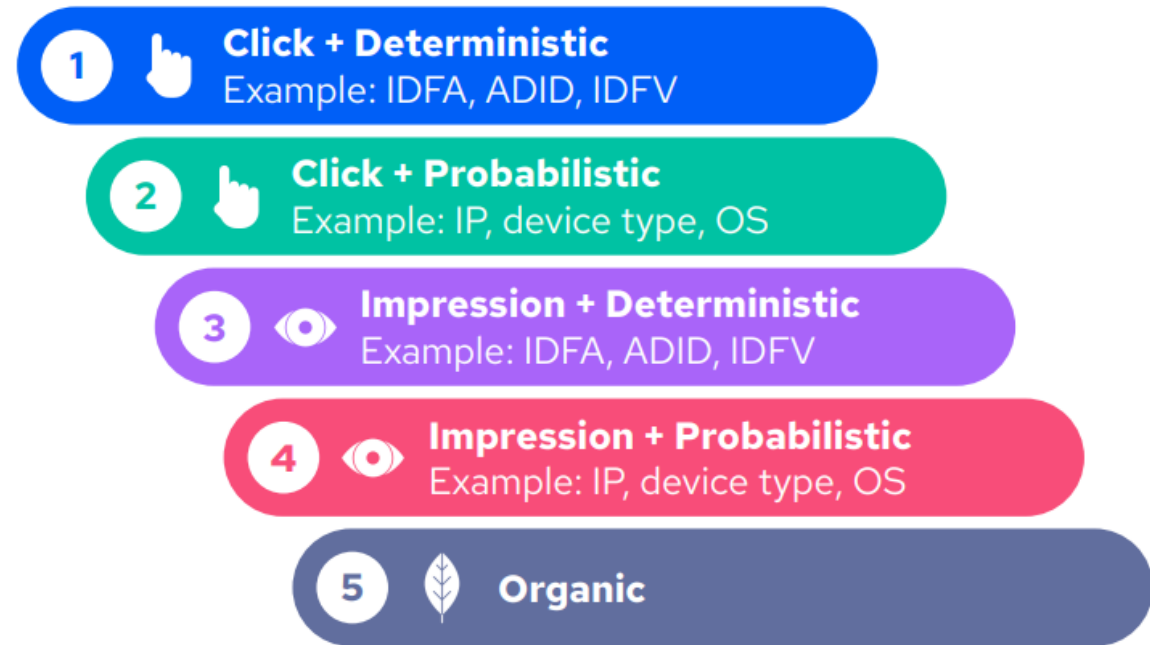
Determine the order in which attribution partners receive credit for installs to avoid discrepancies and ensure accurate performance tracking.

Attribution window

Customize time frame between an ad click and a conversion event, such as an app install, for which a campaign can claim attribution.

The Adjust measurement waterfall

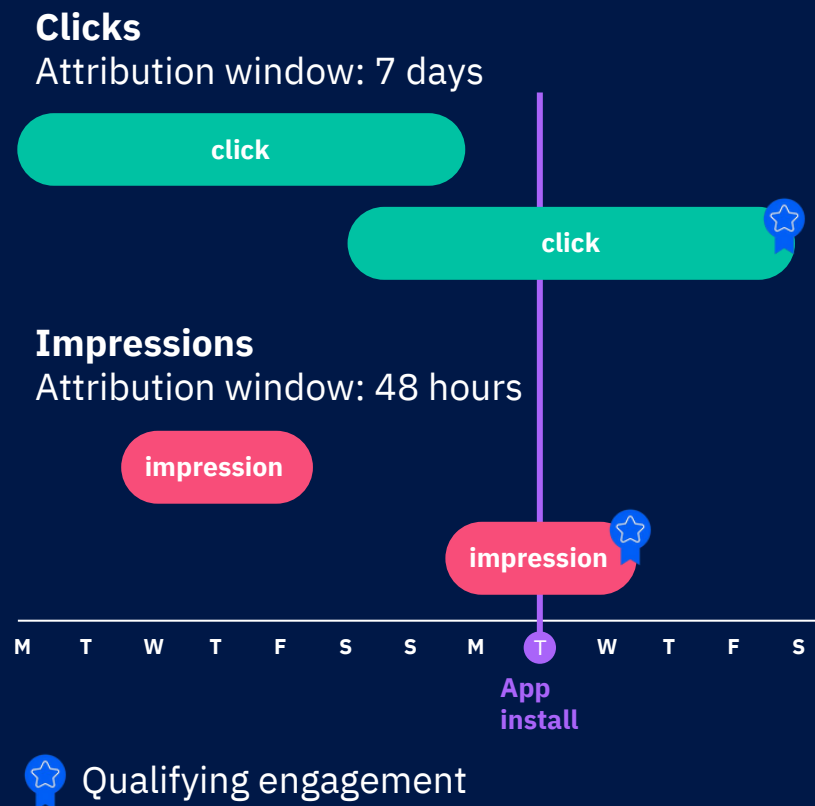
Clicks, impressions and organic



Time is of the essence

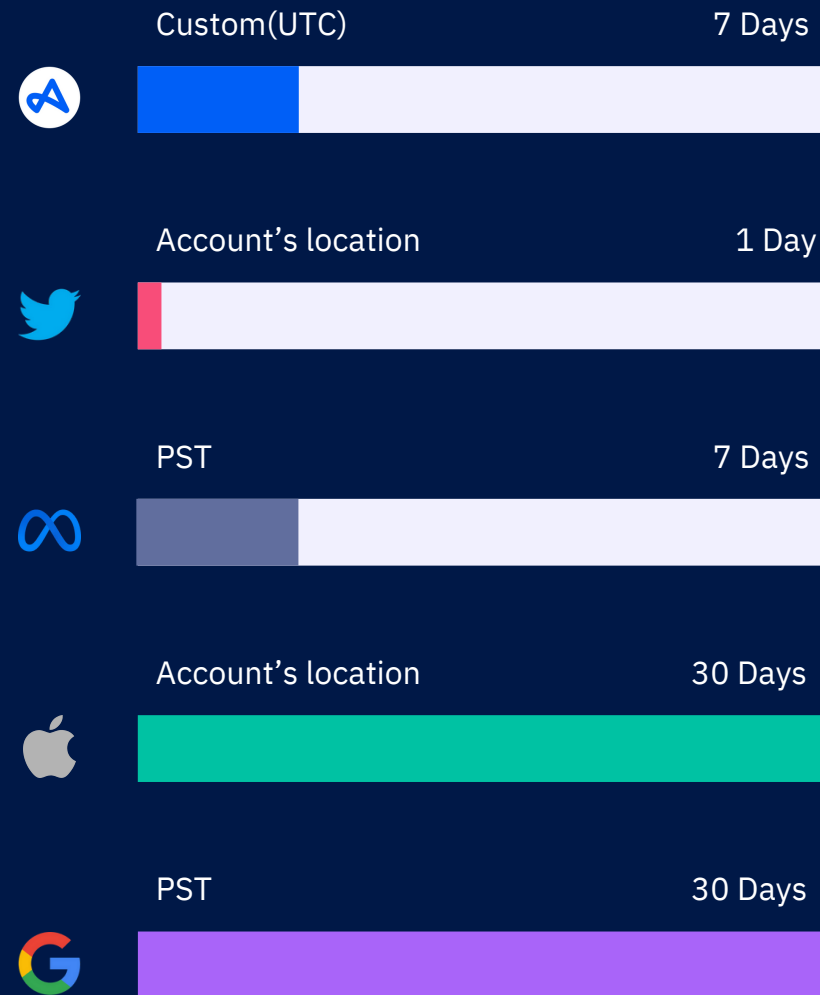
Using attribution windows

The attribution window is the **precise time frame** during which an engagement, such as an ad click or impression, may be attributed to an install. Shorter windows are best for **banner-like formats**, while longer ones are ideal for interactive formats like **playable ads** that require more user engagement.

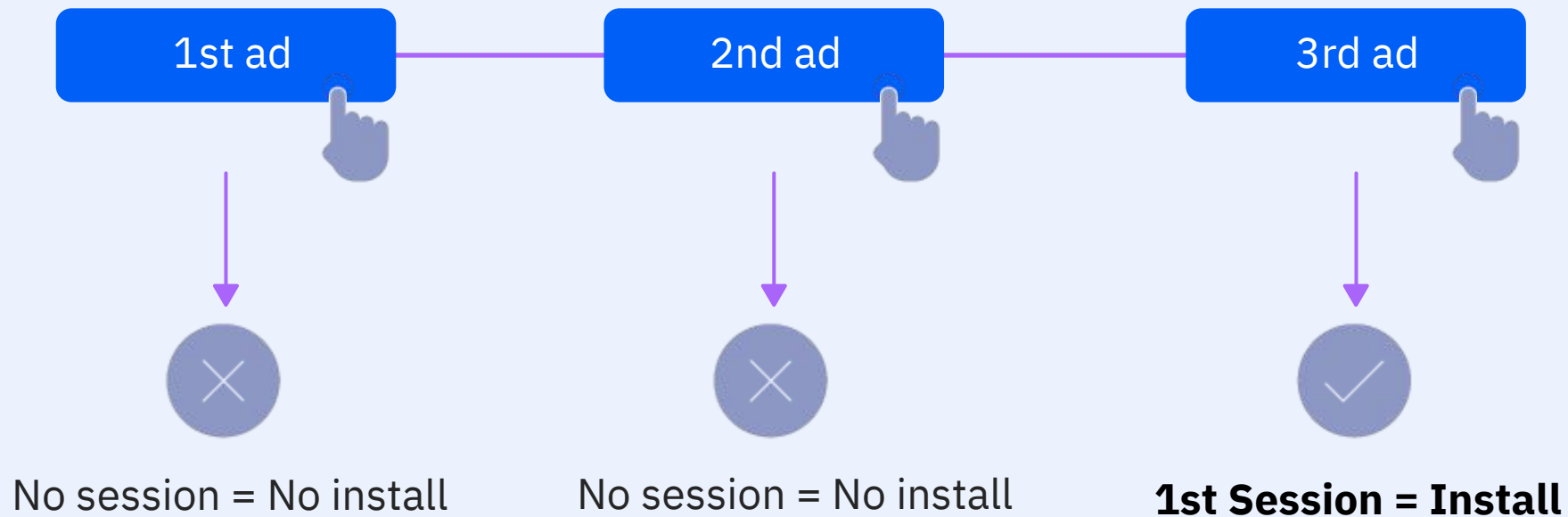


Attribution windows & SANs

Time zone and length differences across SAN partners for clicks



Last click model attribution: 1st app open



Assists and other channels

Understanding attribution in a multichannel journey



Attributing TV campaigns

Discover your hidden champions in CTV and leverage these channels.

- CTV to mobile: Probabilistic cross-device IP-based attribution.
- CTV to CTV: Uses advertising IDs for deterministic attribution and probabilistic attribution also supported.



Assisting installs

Some engagements beyond installs are impacting attribution and there are *assisting channels* that can support the acquisition efforts.

The impact of attribution

Going beyond the data

- **One universal SDK** for your entire advertising ecosystem
- **Scale up** ad partner relationships
- Find your **best sources** of customer growth
- **Prevent** double or triple charging for acquiring a single user
- Understand your **ROI**
- **Know** your app's users
- Have **complete control and ownership** of your data



The 3 golden R's: retribution, retargeting & re-engagement

Measure the efforts that bring back your users

What's reattribution?

Measure your channels that bring your users back with reattribution

Reattribution happens at the moment a user re-opens an app after clicking on a re-engagement ad, matching session n+1 to a prior engagement. Keep in mind, a user needs to come through a new source or marketing channel in order to be reattributed.



Life beyond installs

It's all about retaining your users

80%

Of newly acquired users who have churned the day after

2x

Retention rates of users who opt-in to push notifications

152%

Higher engagement rates compared to newly acquired users

Find the right channel with the right message



Leverage **email campaigns** to inform users about promotions or new features.



Use **push notifications** to reactivate dormant users



Deliver **dynamic product ads** to get a user to finish their purchase



Assist your campaigns with fresh **alternative channels** like CTV

When does a user get **reattributed**?

Inactivity period = 7 Days



Inactivity period impact on your reattribution numbers

Inactivity period = 7 Days



The **retribution** window also impacts the brought-back users

Inactivity period = 7 Days

Reattribution window = 7 Days

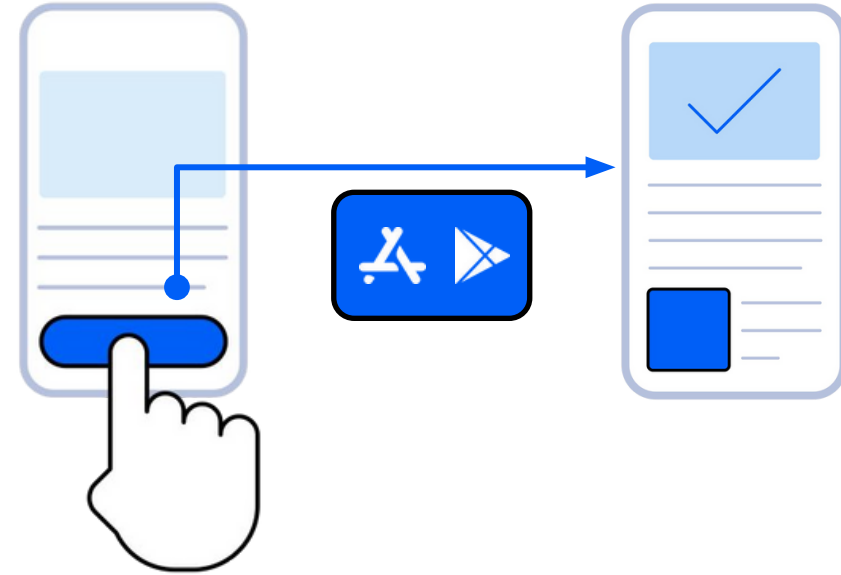


Reattribution matching

Matching existing users to new sessions

While reattributions are only available for Advertising ID available devices, we leverage these matching methods:

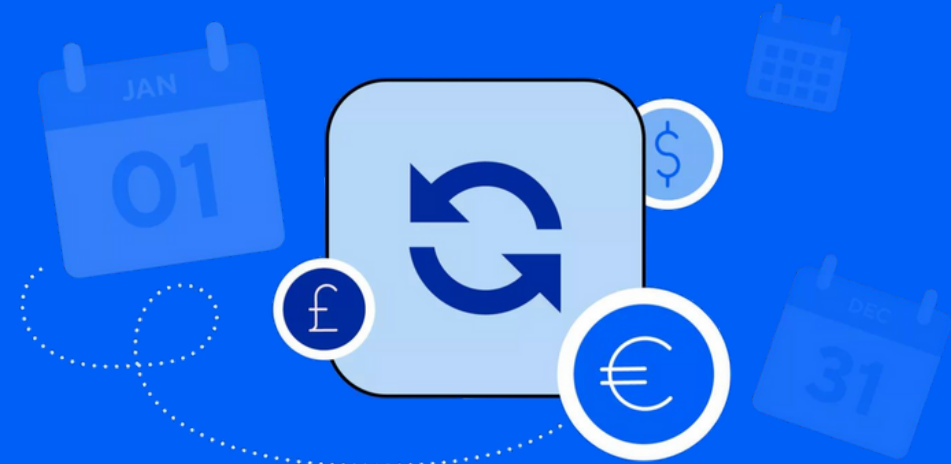
- Advertising ID: IDFA/GPS ADID
- API-Based
- Deeplink



What's retargeting and re-engagement?

Measure your channels that bring your users back with reattribution.

Retargeting is your secret weapon to boost your ROI and increase customer lifetime value. Use it to target retained users with seasonal promos. Meanwhile, re-engagement is perfect for inactive users. Get them back on board with a heartfelt “We Miss You” campaign.



Building a successful retargeting strategy

Engaging users to generate conversions

- **Smartly segment audiences**
Target users most likely to engage and convert.
- **Test campaigns**
Ensure proper set-up and effectiveness before investing resources.
- **Incentivize generously**
Offer discounts and free trials to increase CTR and conversions while ensuring a positive ROI.
- **Use dynamic product ads**
Showcase relevant products with precision to avoid being intrusive.
- **Consider incrementality**
Measure the organic growth/conversions acquired through paid campaigns.

Consider incrementality

Compare the effectiveness of organic vs. paid campaigns

What's incrementality?

- Incrementality measures the overall **effectiveness of a paid campaign.**
- It's a test that asks: *is this growth due to paid campaigns or would it have happened organically?*
- Incrementality tests are **A/B tests** that are usually run by network partners using MMP data

Operationally speaking:

- Test setup, statistical significance, and methodology must all be properly vetted before going forward
- Approach incrementality as a UA audit to do once a quarter or twice a year (it's not worth it to do it regularly due to cost).

View through attribution for a deeper look into campaign performance

How VTA can provide insights, benchmarks, and trends to help inform your marketing strategies

The value of **View Through Attribution**

With view-through attribution (VTA), you can show **which impressions may lead to installs**.

VTA shows how valuable impressions are at acquiring users by **attributing specific impressions to installs**, assigning value delivered by campaigns to ad views that don't directly lead to an install, but are featured along the conversion path.



FIRST TOUCH ATTRIBUTION



LAST TOUCH ATTRIBUTION



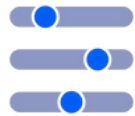
MULTI-TOUCH ATTRIBUTION



VIEW-THROUGH ATTRIBUTION

How does VTA work?

View-through attribution, also known as impression tracking, gives credit to impressions that occurred within a certain time frame after the user saw an ad.



VTA works best with **shorter attribution windows** to ensure that the most recent impressions are awarded to installs



Leverage VTA **on its own or mixed with clicks** based on your campaigns requirements



VTA is effective across use cases including **both user acquisition and re-engagement/ reactivation campaigns**

Drive ROAS with VTA

Adjust has the tools you need to discover impact throughout the customer journey



Compare your impression-based campaigns against your marketing strategy

Filter through, compare and visualize an unlimited number of data sources in **Datascape**. Then, export your reports directly from your dashboard.



Easily navigate the waters of SKAN + View-Through campaigns

Maintain the ease of impression-based campaigns for **iOS users** while protecting their privacy preferences and drawing real time insights.



Measure your impressions on the silver screen and expand your channel mix

Determine the exact impact of your Connected TV (CTV) campaigns and prove ROI with CTV AdVision and Assists.

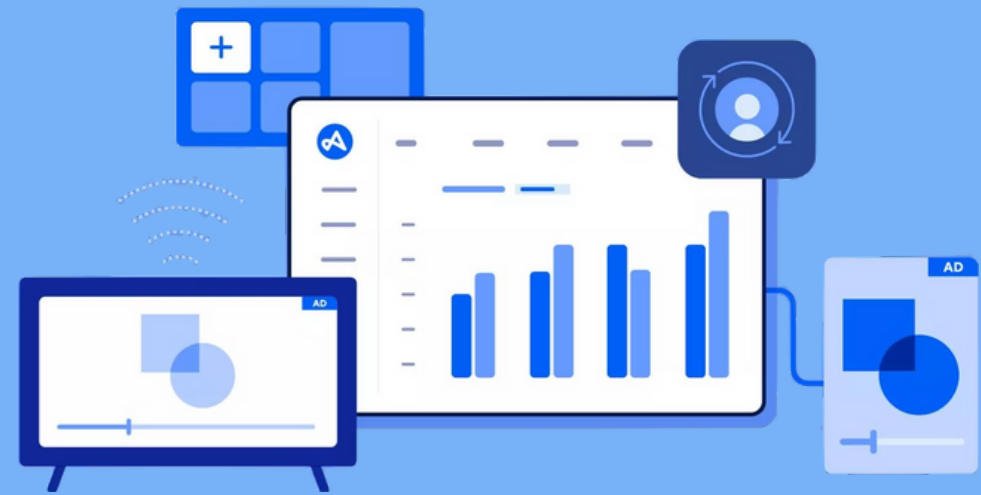
The magic of tracker URLs

Links to communicate between adjust and partners

What are tracker URLs?

The foundation for effective campaign tracking

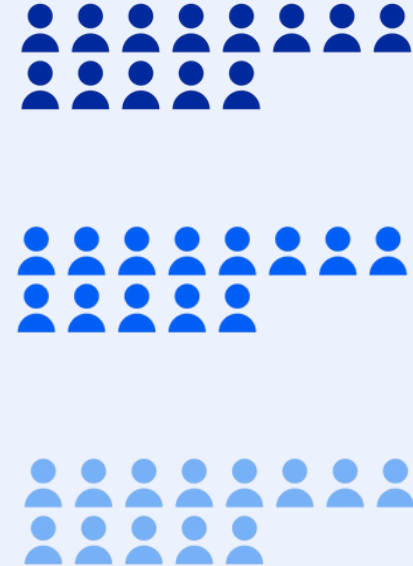
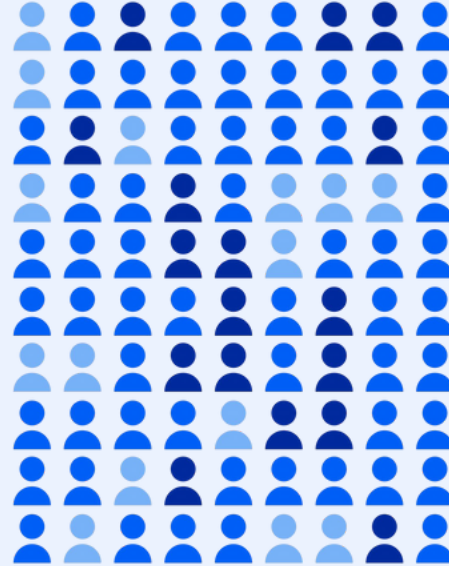
Adjust trackers are the building blocks of your campaign tracking strategy. With tracker URLs, you can link users directly to your app in the right app store, record user engagement with ads, segment users by their attribution source, and even redirect them based on their device type.



Trackers are the foundation of campaign tracking



<https://app.adjust.com/abc123?...>



Finding trackers

Tracker types for clicks and impressions

Click tracker

Record click engagements and device identifiers for attribution. In cases where users don't share device ID, Adjust falls back to probabilistic matching.

Endpoint:

`https://app.adjust.com / abc123`

Default attribution window: 7 days

Impression tracker

Record impressions/views. For web browsers, Adjust uses probabilistic matching. For in-app campaigns, network can forward device ID.

Endpoint:

`https://view.adjust.com / impression/abc123`

Default attribution window: 24 hours

Connected TV tracker

Use cross-device probabilistic matching to attribute campaigns promoting mobile apps on connected TV.

Endpoint:

`https://view.adjust.com / impression/abc123`

Default attribution window: 24 hours

The making of **tracker URLs**

```
https://app.adjust.com/abc123?  
campaign=Example_CampaignName&adgroup=Example_PublisherID&creative=Example_CreativeID
```

Tracker structure

The Adjust tracker is made up of:

- `https://app.adjust.com/` – The endpoint
- `abc123` – The tracker token
- `campaign=Example_CampaignName` – Additional information passed as key-value pairs

The making of tracker URLs

```
https://app.adjust.com/abc123?  
campaign=Example_CampaignName&adgroup=Example_PublisherID&creative=Example_CreativeID
```

Tracker endpoint

● Clicks:

<https://app.adjust.com/>

● Impressions & CTV:

<https://view.adjust.com/impression/>

Adjust server endpoints are used for tracker URLs, depending on the tracker type. Click and impression/CTV URLs use separate endpoints to maintain attribution data integrity.

Adjust tracker token

[abc123](#)

Unique tracker tokens are automatically created for every Adjust tracker, containing 6+ alphanumeric characters. Click and impression URLs for a tracker use the same token.

The making of tracker URLs

```
https://app.adjust.com/abc123?  
campaign=Example_CampaignName&adgroup=Example_PublisherID&creative=Example_CreativeID
```

Parameters

1. Campaign structure

4 levels to segment your trackers, hardcoded values are supported:

```
campaign=Summer_Sale | adgroup=US_region | creative=Beach_view_banner_0123
```

2. Network macros

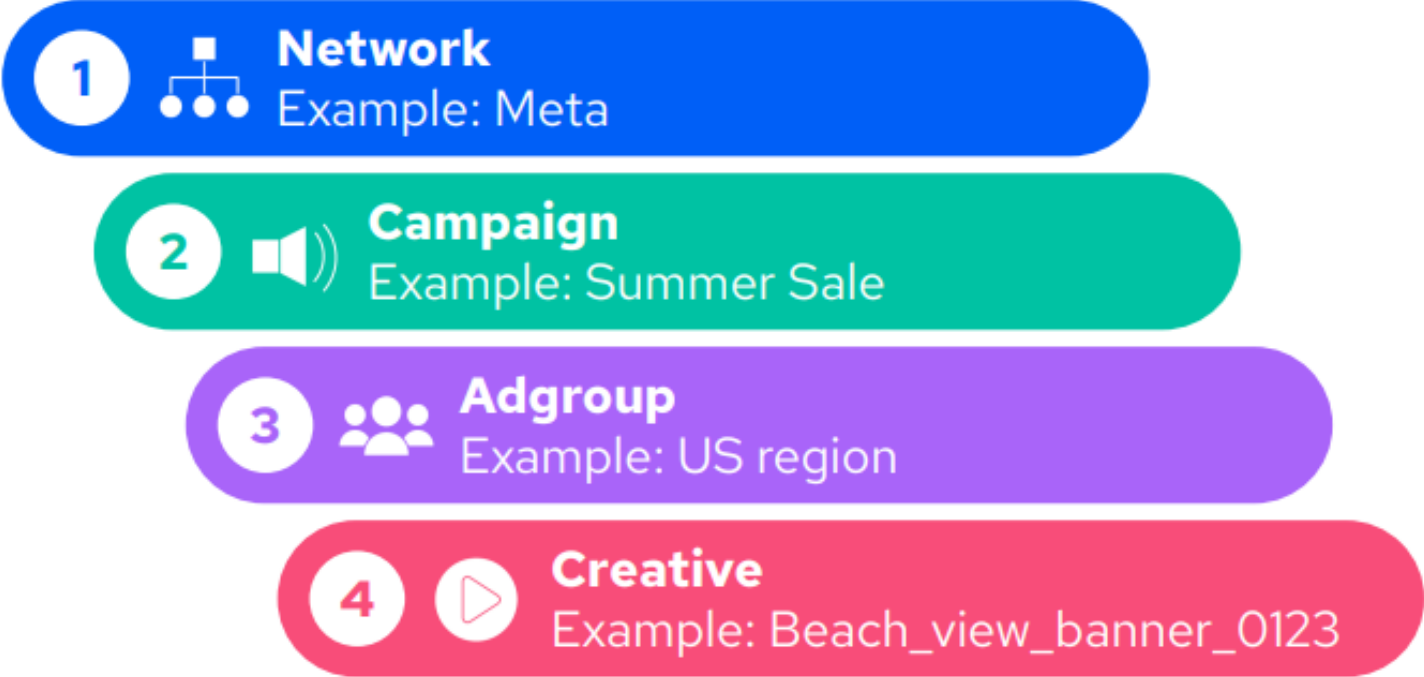
Allowing the network to fill the segments from their end with dynamic macros:

```
campaign={networkcampaign_name} | adgroup={networkadgroup_name} |  
creative={networkcreative_name}
```

Campaign structure

Four layers to organize your trackers

```
https://app.adjust.com/abc123?  
campaign=Summer_Sale&  
adgroup=US_region&  
creative=Beach_view_banner_0123
```



Multi-platform universal trackers

```
https://abcd.adj.st/offer?  
adjust_t=abc123_456def&adj_deeplink=myapp%3A%2F%2Foffer
```

Tracker structure

Multi-platform trackers are made up of:

- `https://abcd.adj.st/offer` – Universal link including path
- `abc123` – iOS tracker token
- `456def` – Android tracker token
- `myapp%3A%2F%2Foffer` – Encoded Android deep link including path.
Decoded: `myapp://offer`

Understanding the tracker potential

Additional parameters

PARAMETER	USE
LABEL	Injects additional data on click
DEEP LINK	Sends users directly to a specific page within your app
REDIRECT	Sends users to a specific URL (incl. platform specific redirects)
FALLBACK	Redirects off-platform users to a specific landing page
FALLBACK LANDING PAGE	Pops-up to confirm or cancel their redirect to the App Store for iOS
FALLBACK CLICK	10.3+ Distinguishes between organic and paid user attributions
AD SPEND	Tracks your mobile advertising spend down to the lowest campaign
DYNAMIC CALLBACK	levels Sends custom campaign parameters at click or impression time

Fallback parameters for **outside of mobile**

```
https://app.adjust.com/abc123?  
fallback=http%3A%2F%2Fmylandingpage.com
```

Fallback parameter

```
fallback=http%3A%2F%2Fmylandingpage.co
```

m When targeting off-mobile users, leverage the fallback parameter for **landing pages**. For instance newsletter subscribers checking on web.

Decoded: *fallback=www.mylandingpage.com*

Boosting with branded links

• Unbranded link



• Branded link



Branded links boost **conversions**, and **click-through** rates.



Cohesive links reinforce **brand awareness**, **authenticity** and **recognition**.



Consistent domains **reduce resistance** to increase conversions.

Let your users run your UA efforts with referrals

Measuring referrals with Adjust



Incentivize with rewards

Motivate existing users with personalized incentives to stay active and attract more users. Set specific in-app events or achievements for rewards that excite power users.

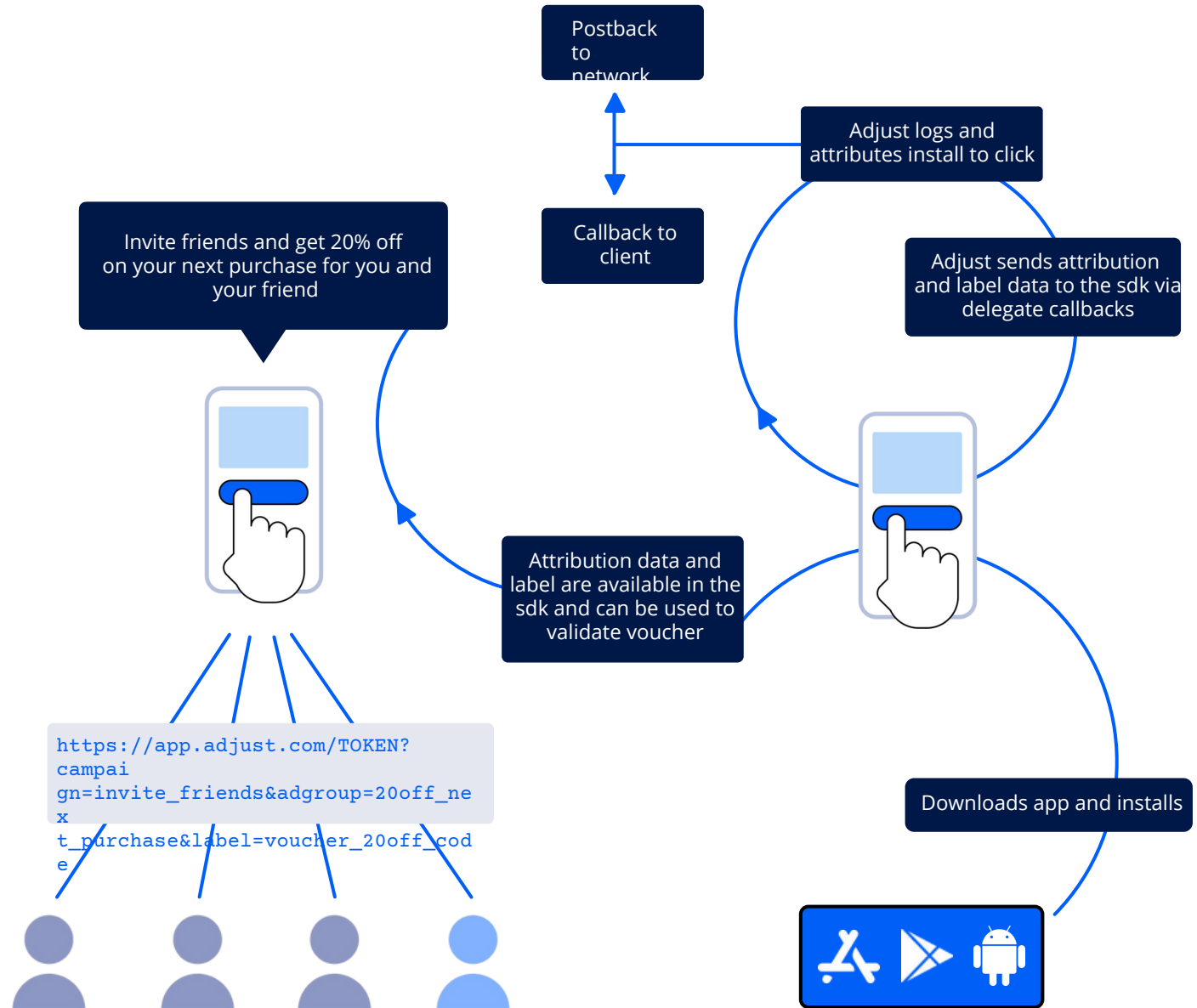


Personalize onboarding flow

Create a tailored experience for new users that fast tracks their onboarding and connects them with friends. Increase engagement and build loyalty.

Referral tracking flow

Boost your install rate with a referral program and offer users who invite their friends customized in-app rewards



The magic behind QR codes

Creating QR codes from your tracking URLs

What are tracker QR codes?

From scanning to measurement

QR codes are a powerful tool for mobile advertising. They work just like any other ad, with the added benefit of being scannable by a device's camera. Adjust can track QR code scans as clicks, giving you valuable insights into user engagement. Plus, you can easily filter and analyze your data in Datascape along other networks.



Create measurable offline ads with built-in interactivity

Download QR Codes of Adjust tracker links right inside the dashboard

QR code adoption has skyrocketed in the last few years, seeing a growth of **94% from 2018 to 2020*** in the Americas, and global QR code coupon redemptions **quadrupling from 1.5B in 2017 to 5.3B in 2019.****



Create seamless experiences for your users

Connect offline ads or CTV campaigns to apps with ease and enhance user experience with direct response campaigns.



Effortless QR code creation and tracking

Generate and track QR codes within Adjust interface for hassle-free offline advertising measurement.

Bring your offline campaigns online with QR codes

Leverage Adjust QR codes for a seamless user journey from ad to app

- **Out-of-home advertising**
Turn your billboards, busses, and posters into interactive ad campaigns with QR codes.
- **CTV Campaigns**
Take advantage of dual screening by including a QR code for a direct response, allowing consumers to easily download mobile apps directly from the TV screen.
- **Referral campaigns**
Strengthen your partnership marketing campaigns with exclusive offers redeemed via QR codes for instantaneous downloads.

See QR codes in action

Burger King leverages QR codes in an interactive CTV ad



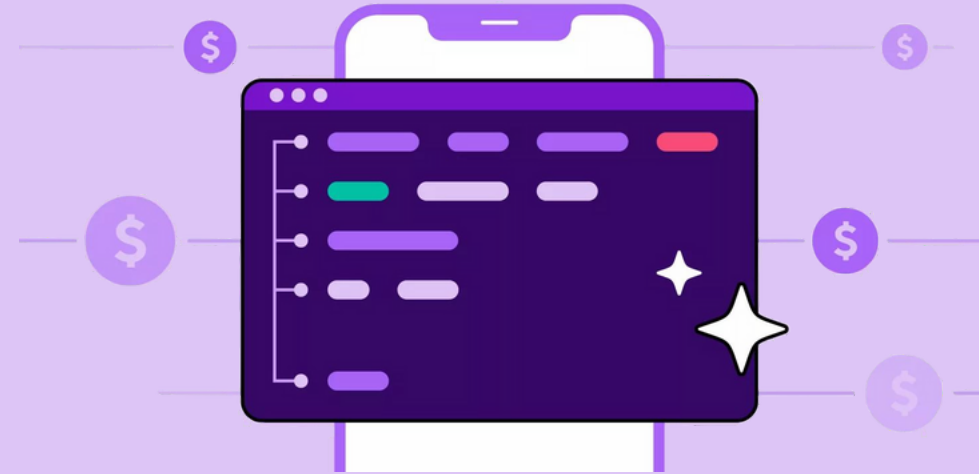
Use deep links to create a seamless ad-to-app experience

Track and enhance a smooth ad-to-app flow.

What are deep links?

Direct users where they need to be

Reduce friction and increase engagement when directing your users. Deep linking brings users directly to a specific page within your app if it's already installed. Deferred deep linking takes it a step further, directing users to the same page after they install or reinstall the app, creating a seamless and personalized experience.



Create a seamless ad-to-app experience



Measure
re-engagements
efforts



Track re-engagement
from **push**
notifications



Send users to **exact**
destinations within
the app



Create quick and easy deep links

Save time when creating deep links

- **Ease of Use:**
Instantly generate a deeplink that's ready to use, with no hassle
- **Automation:**
Free up time by letting the MMP automate the deeplink creation process.
- **Reliability:**
Eliminate human error and broken deep links by automating the process with your MMP.

Determine the destination of your campaigns

Deep link use cases



Referral Campaigns

Send deep links as referral links so referred users can be directed to appropriate “landing page”.



Product Promotions

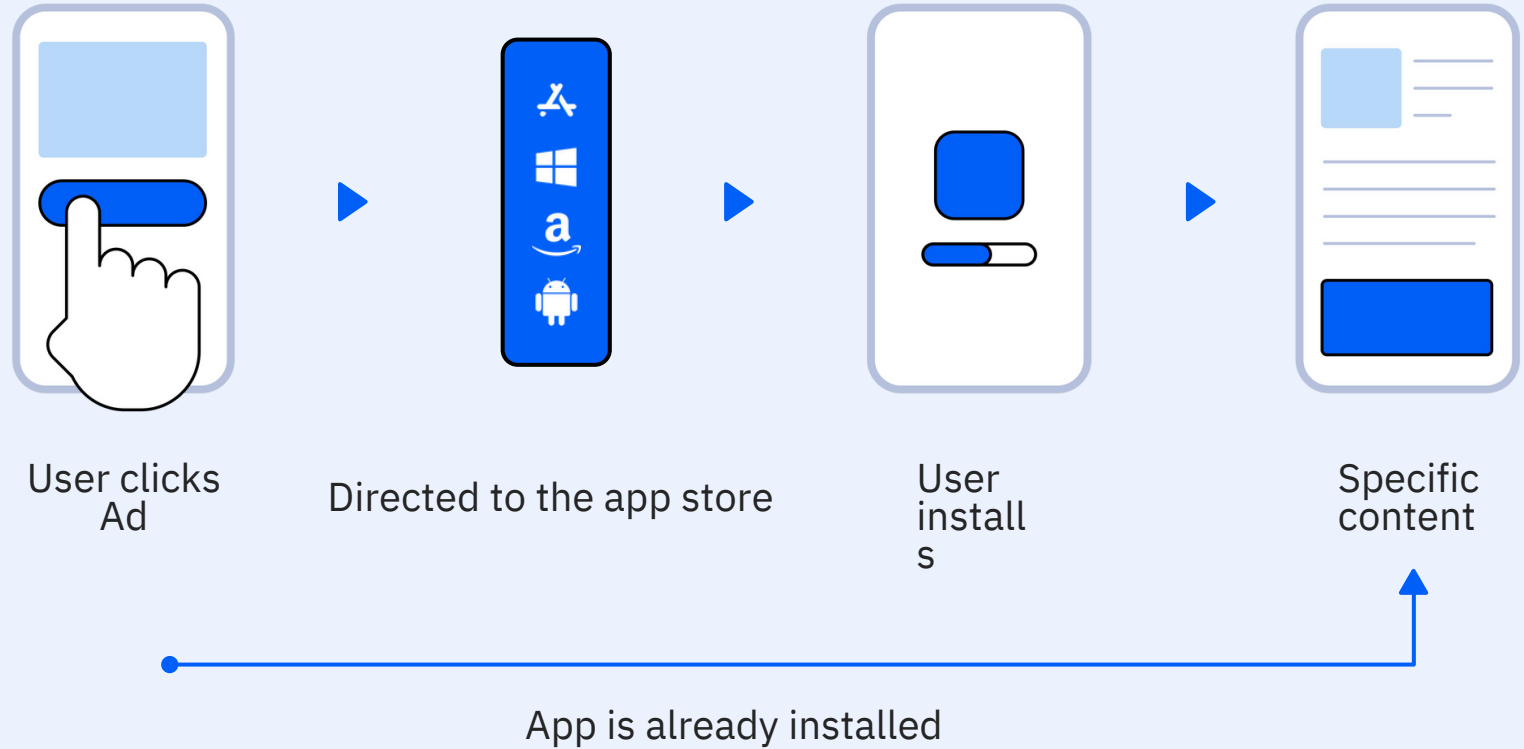
If there’s a new product release, run campaigns on it and deeplink users to the new product on your app.



Retargeting Campaigns

Reactivate old users and combine reattributions with deeplinking to measure performance accurately.

Deep linking: A straight forward journey



Key to using deeplink types

1

Adjust tracker + deeplink parameter:

```
https://app.adjust.com/f0ob4r?deep_link=myapp%3A%2F%2F
```



Acquisition and retargeting campaigns

2

Direct deeplink:

```
myapp://prod_view?adjust_tracker=f0ob4r
```

URL
scheme

Path

Adjust
Parameters



Retargeting campaigns

- Push notifications
- Google Retargeting (w/o adjust_tracker)

3

Universal Links:

```
https://abcd.adj.st/?adjust_t=abc123
```



Retargeting campaigns
iOS 9+