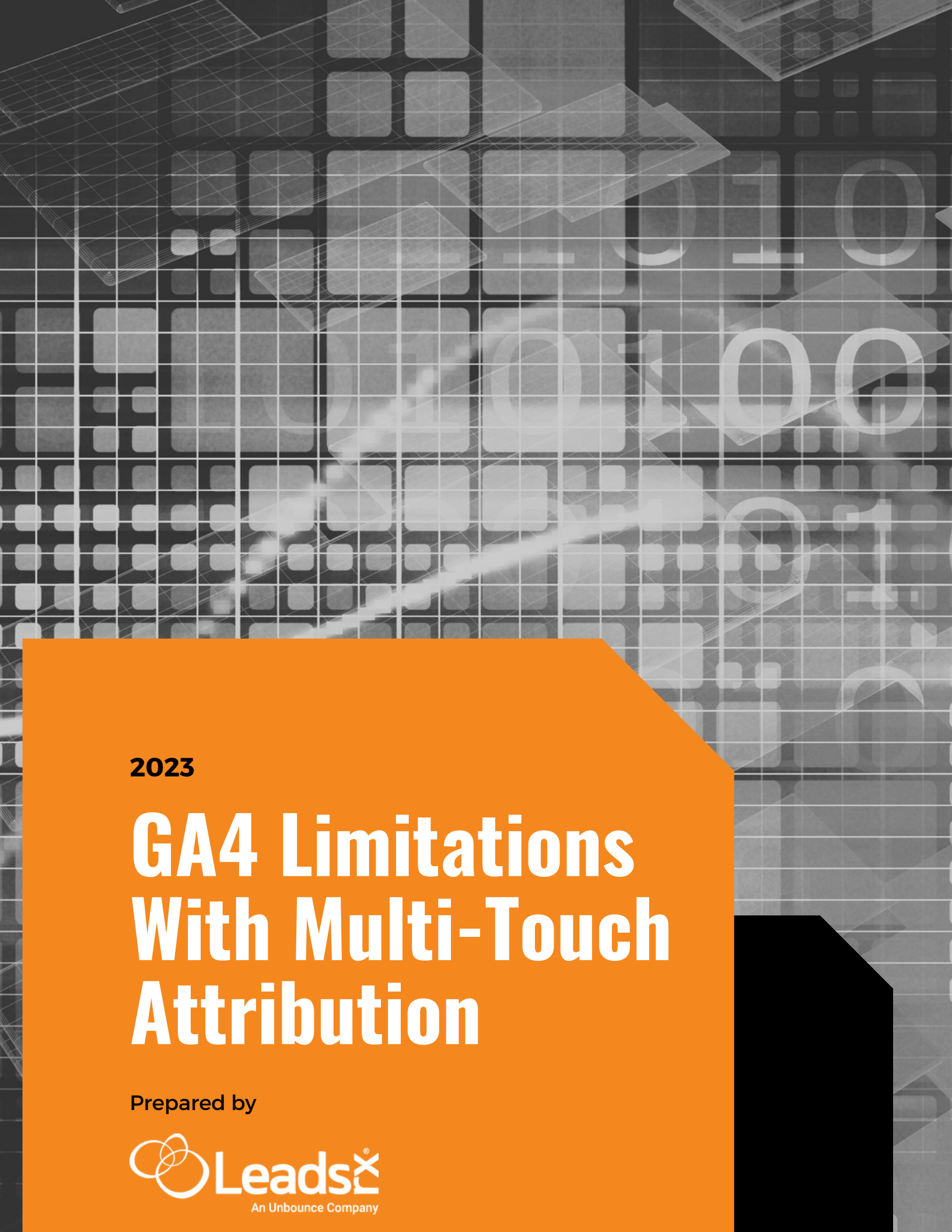

2023

GA4 Limitations With Multi-Touch Attribution

Prepared by

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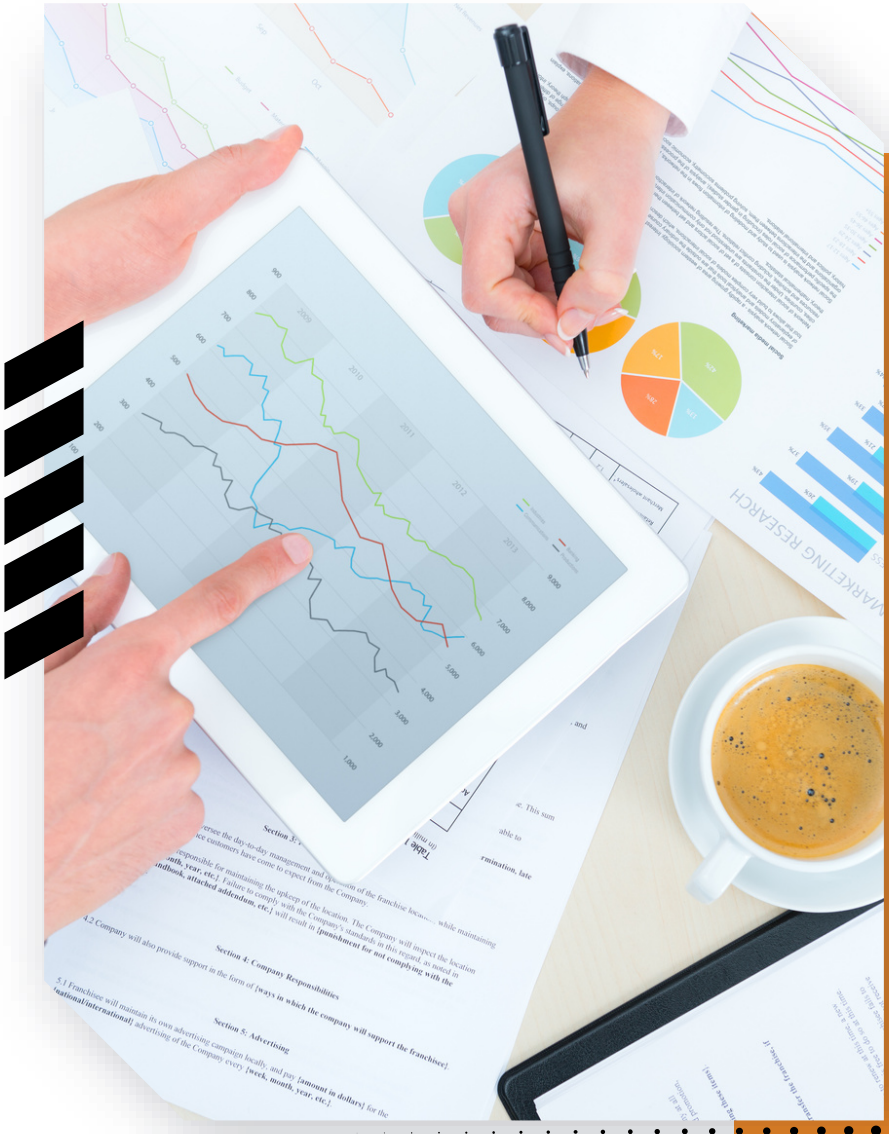
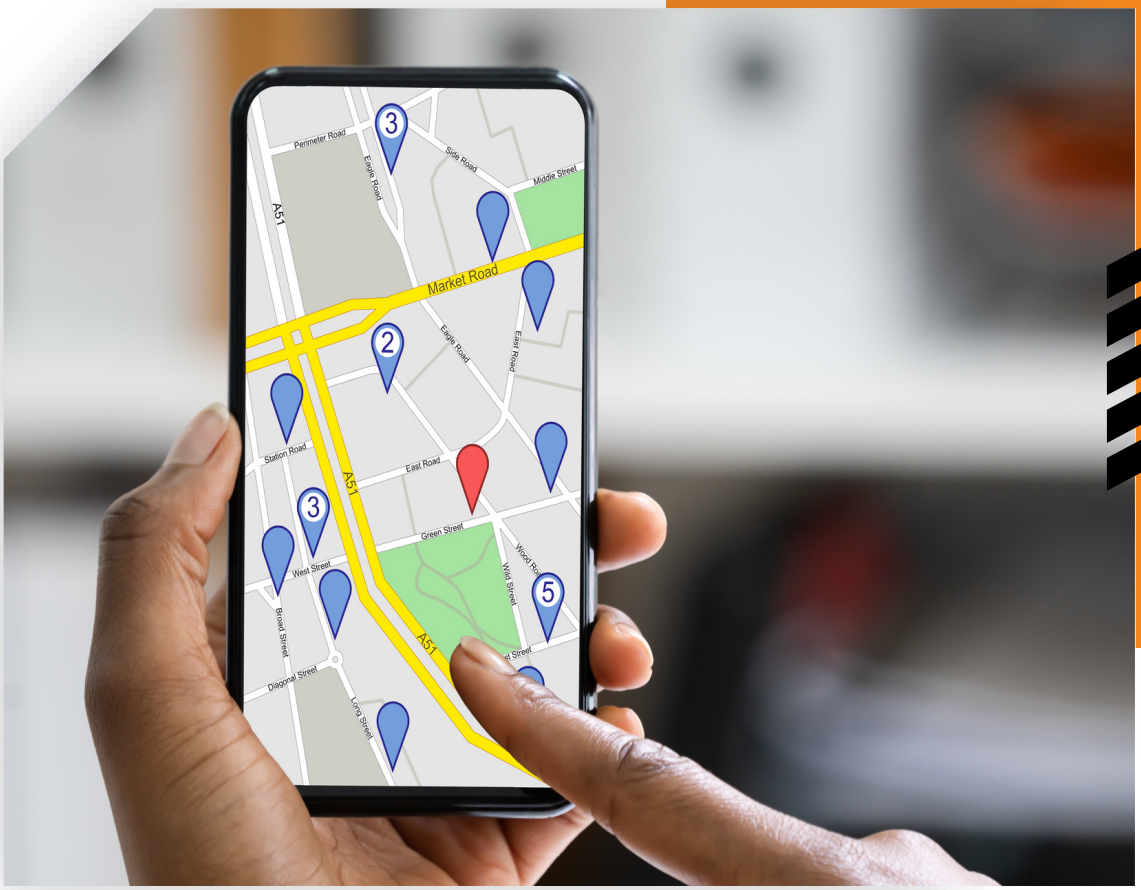
An Unbounce Company

What Is GA4?

Google Analytics 4 (GA4) is a popular and powerful analytics tool for tracking website traffic. It offers real-time data and analytics, allowing businesses to monitor website traffic and engagement in real time and make adjustments as needed.

GA4 also provides detailed reports on pageviews, bounce rates, conversion rates, and other metrics, helping businesses identify areas for improvement and optimize their website for increased traffic and conversions. However, limitations exist in GA4's tracking capabilities due to user privacy settings or ad-blocking software, which may result in inaccuracies in location and time tracking data. Despite these limitations, GA4 remains a valuable tool for businesses looking to gain insights into their website traffic and improve their digital marketing efforts.





How GA4 Handles Location

Tracking Location Data

Google Analytics 4 tracks the location of website visitors by using their IP addresses. Every device that connects to the internet is assigned an IP address, which can be used to determine the general location of the user. GA4 uses this location data to provide insights into where website traffic is coming from and to help advertisers target specific geographic areas.

Inaccuracies with Tracking

While IP addresses can be a useful way to track location data, there are limitations to their accuracy. For example, users who connect to the internet using a virtual private network (VPN) may be assigned an IP address that is not associated with their physical location. Additionally, IP addresses can be misidentified or incorrectly assigned, which can lead to inaccurate location data in GA4.

GA4 Not Able to Track all Location Data

Some users may choose to block tracking cookies or disable location tracking on their devices, which can prevent GA4 from accurately tracking their location. Additionally, ad-blocking software may block GA4 from collecting location data, further limiting the accuracy of this metric.

Limitations on Advertisers

For advertisers who rely on location-based targeting, these limitations in GA4's location data can have a significant impact on the effectiveness of their campaigns. Less precise location data can lead to less targeted ads and may result in lower conversion rates. Additionally, inaccurate location data may lead to wasted ad spend as advertisers target the wrong geographic areas.

Time/Day Part Tracking in GA4

GA4 can track the time of day and day of the week when website traffic occurs in real time, with data being reported down to the minute. This can be useful for advertisers who want to optimize their campaigns based on when their target audience is most active on their website.

GA4 may experience delays in reporting, which can impact real-time optimization effort

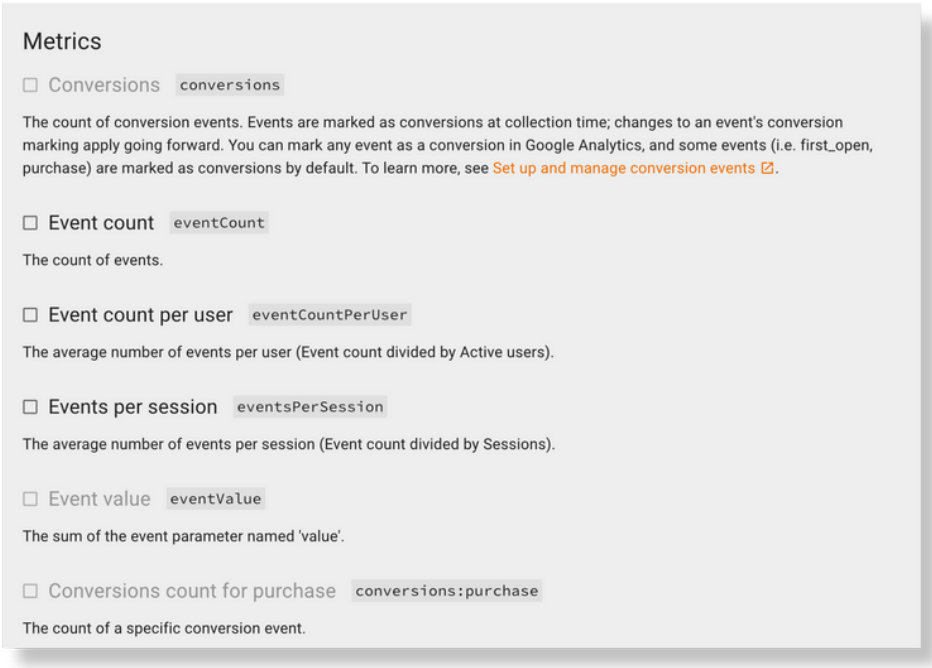
While GA4 is capable of real-time tracking, there may be occasional delays in reporting. This can impact the ability of advertisers to make real-time optimizations based on time and day data, as they may not have access to up-to-the-minute information.

Potential inaccuracies in time and day data, such as when users change time zones or if their device clock is incorrect

There are a few potential inaccuracies that can impact the time and day data tracked by GA4. For example, if a user changes time zones while browsing a website, the time data may be inaccurate. Similarly, if a user's device clock is incorrect, this can also impact the accuracy of the time and day data being reported.

Analysis of GA4 Capabilities

Compatible Metrics with Hour/Minute/Second level data:



Metrics

☐ Conversions `conversions`

The count of conversion events. Events are marked as conversions at collection time; changes to an event's conversion marking apply going forward. You can mark any event as a conversion in Google Analytics, and some events (i.e. first_open, purchase) are marked as conversions by default. To learn more, see Set up and manage conversion events.

☐ Event count `eventCount`

The count of events.

☐ Event count per user `eventCountPerUser`

The average number of events per user (Event count divided by Active users).

☐ Events per session `eventsPerSession`

The average number of events per session (Event count divided by Sessions).

☐ Event value `eventValue`

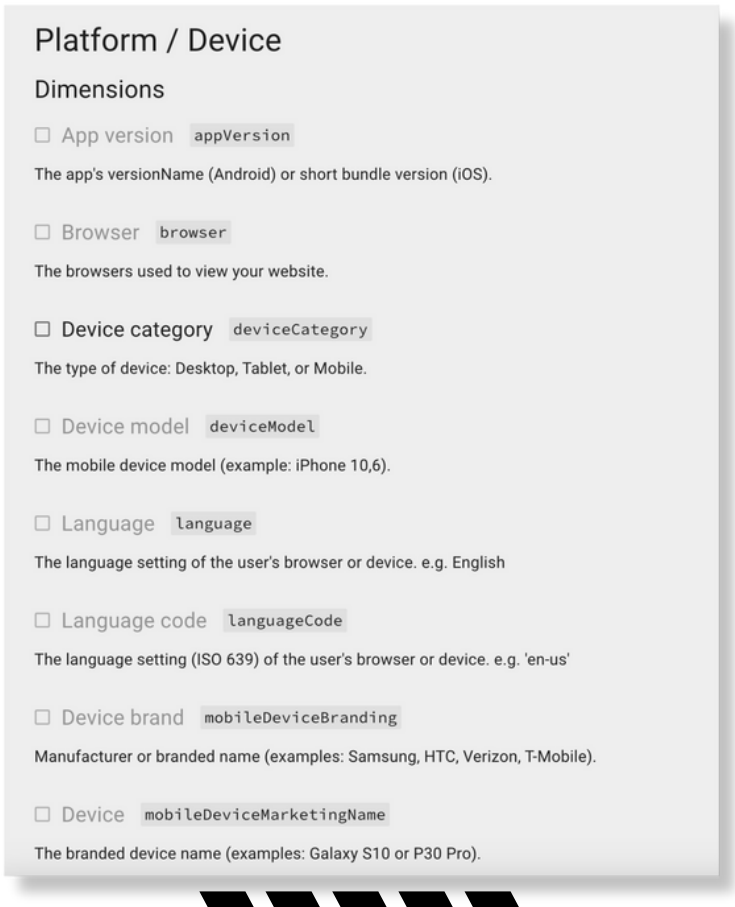
The sum of the event parameter named 'value'.

☐ Conversions count for purchase `conversions:purchase`

The count of a specific conversion event.

For advertisers who rely on real-time optimization based on time and day data, the limitations of GA4's tracking capabilities can significantly impact their campaigns' effectiveness.

Here are some compatible platforms & devices with Hour/Minute/Second level data:



Platform / Device

Dimensions

☐ App version `appVersion`

The app's versionName (Android) or short bundle version (iOS).

☐ Browser `browser`

The browsers used to view your website.

☐ Device category `deviceCategory`

The type of device: Desktop, Tablet, or Mobile.

☐ Device model `deviceModel`

The mobile device model (example: iPhone 10,6).

☐ Language `language`

The language setting of the user's browser or device. e.g. English

☐ Language code `languageCode`

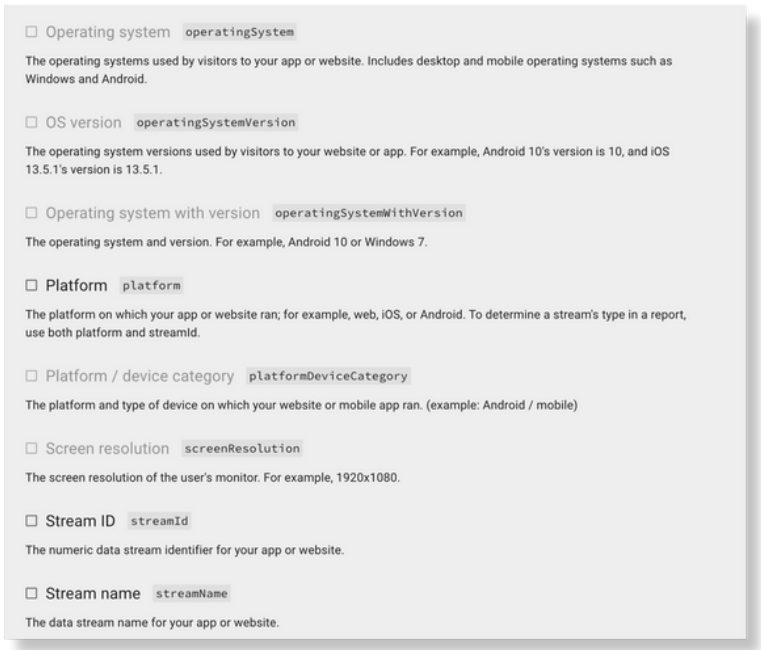
The language setting (ISO 639) of the user's browser or device. e.g. 'en-us'

☐ Device brand `mobileDeviceBranding`

Manufacturer or branded name (examples: Samsung, HTC, Verizon, T-Mobile).

☐ Device `mobileDeviceMarketingName`

The branded device name (examples: Galaxy S10 or P30 Pro).



☐ Operating system `operatingSystem`

The operating systems used by visitors to your app or website. Includes desktop and mobile operating systems such as Windows and Android.

☐ OS version `operatingSystemVersion`

The operating system versions used by visitors to your website or app. For example, Android 10's version is 10, and iOS 13.5.1's version is 13.5.1.

☐ Operating system with version `operatingSystemWithVersion`

The operating system and version. For example, Android 10 or Windows 7.

☐ Platform `platform`

The platform on which your app or website ran; for example, web, iOS, or Android. To determine a stream's type in a report, use both platform and streamId.

☐ Platform / device category `platformDeviceCategory`

The platform and type of device on which your website or mobile app ran. (example: Android / mobile)

☐ Screen resolution `screenResolution`

The screen resolution of the user's monitor. For example, 1920x1080.

☐ Stream ID `streamId`

The numeric data stream identifier for your app or website.

☐ Stream name `streamName`

The data stream name for your app or website.

Location data are dimensions that are incompatible with the hour/minute/second granular data. Inaccurate data or delays in reporting can make it more difficult to make informed optimization decisions in real-time, potentially leading to missed opportunities for engagement and conversions.

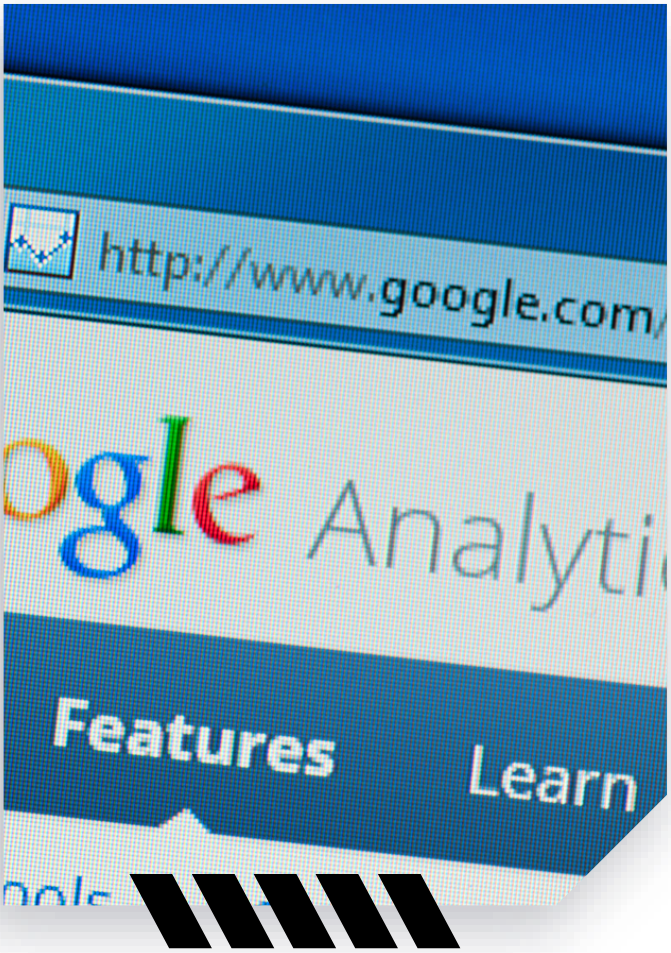
Limitations of GA4

Limitations of GA4 beyond location and time/day part tracking

While GA4 offers some improvements in tracking location and time/day part data, it also has some limitations compared to previous versions of Google Analytics. For example, cross-device tracking may be more difficult with GA4, as it relies on the user being logged in to a Google account across multiple devices. Additionally, user identification may be less precise with GA4, as it relies on machine learning algorithms to identify user behavior patterns rather than using cookies.

GA4 may not track all website traffic due to user privacy settings or ad-blocking software

One of the biggest limitations of GA4 is that it may not be able to track all website traffic due to user privacy settings or ad-blocking software. For example, if a user has set their browser to block third-party cookies, GA4 may not be able to track their behavior on the website. This can lead to gaps in the tracking data, making it more difficult for advertisers to gain a complete understanding of user behavior.



GA4 may not provide as much detail about user behavior compared to previous versions of Google Analytics.

Another limitation of GA4 is that it may not provide as much detail about user behavior compared to previous versions of Google Analytics. For example, GA4 may not track every single interaction on a website, instead focusing on the most important user actions. While this can provide a more streamlined and actionable view of user behavior, it may also mean that advertisers have less granular data to work with.

Precise tracking data may be harder to come by with these limitations.

The limitations of GA4 can have a significant impact on the ability of advertisers to track user behavior and optimize their campaigns. With less granular data and potential gaps in tracking, advertisers may find it more difficult to make informed decisions about their campaigns. Additionally, limitations around cross-device tracking and user identification may make it more difficult to gain a complete view of user behavior.

The Future of GA Given Privacy

Privacy concerns surrounding website tracking and analytics tools

In recent years, there has been a growing awareness of privacy concerns surrounding website tracking and analytics tools. Regulatory changes like the GDPR and CCPA have put pressure on companies to be more transparent about their data collection practices and to give users more control over their data.

Use of event-driven data and machine learning

To address these privacy concerns, GA4 has introduced changes to data collection and reporting. For example, GA4 now uses event-driven data rather than pageviews to track user behavior. This can provide more detailed information about specific user actions, while also reducing the amount of data collected overall.

GA4 may rely more heavily on first-party data in the future

In the future, GA4 may rely more heavily on first-party data, such as data collected directly from users on a website. This can help to address privacy concerns by reducing reliance on third-party data. However, this may also mean that GA4 is subject to more regulatory scrutiny in the future.

Tracking data may become less detailed and precise in the future

The changes to data collection and reporting in GA4 can have a significant impact on advertisers. While these changes are designed to address privacy concerns, they may also mean that tracking data becomes less detailed and precise in the future. This can make it more difficult for advertisers to gain a complete understanding of user behavior and to optimize their campaigns accordingly.

These limitations may be particularly challenging for advertisers who rely on precise targeting and optimization strategies to drive website traffic and conversions. As privacy concerns continue to shape the digital landscape, website tracking, and analytics tools like GA4 may need to evolve to meet changing regulatory requirements and user expectations.

This may mean relying more heavily on first-party data and event-driven data collection techniques, as well as developing new machine learning algorithms to provide insights while still preserving user privacy.

In the end, the ongoing challenges of balancing privacy concerns with the need for accurate tracking data will continue to shape the future of website tracking and analytics tools like GA4.

Alternative solutions, such as using LeadsRx or additional third-party tools, can help marketers overcome these limitations and get a complete understanding of their data. Visit our website to learn more about how LeadsRx can provide a holistic view of your customer's data journey today.

Schedule a demo today to see how multi-touch attribution, customer journey analytics, and insights from these solutions can shape your success in marketing.

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