



ABANDONED MOBILE APPS Q4 2023:

Google Play App Store

Research Report

An analysis of abandoned apps, apps with no updates in +2yrs, in the Google Play Store in Q4 2023



TABLE OF CONTENTS

Key Stats	3-6
Abandoned Apps w/ ads	7-10
Developers' Country & Region.....	11-13
Likely Child-Directed Abandoned Apps	14-15
Methodology and Disclaimer	16-18

Abandoned Apps

Pixalate uses the date in which an app was last updated to determine the degree of apparent abandonment. For high-level data points, Pixalate considers an app to have a heightened risk of “abandonment” if it has ***not been updated in at least two years*** (as of the end of Q4 2023). However, this report also provides data showing different levels of apparent abandonment in six-month increments, up to apps that have not been updated in more than four years (“super-abandoned” apps).

Why is this important?

Outdated and abandoned apps are potential privacy and data security risks because vulnerabilities may go unpatched, user data collection and transmission may continue if an app remains installed on a user device. This may expose users to privacy risks and the ad industry to hidden compliance violations by way of outdated privacy policies, terms and conditions, or app behaviors.



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Chief Economist



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1.3M

-4%
YoY

Abandoned apps

Total number of abandoned apps (not updated in +2yrs) available to download in Google Play as of the end of Q4 2023; decrease 4% YoY from 1.4M in Q4 2022

142k

-11%
YoY

Abandoned apps with ads

Total number of abandoned apps in Google Play Store with advertising (based on app-ads.txt data)



15k



Russian registered apps are abandoned

46% (15k) of apps registered in Russia are abandoned as of Q4 2023

89k

-12%
YoY

Likely child-directed apps are abandoned

of likely child-directed apps that are abandoned (out of 293k+ total likely child-directed apps in Google Play store)



38%

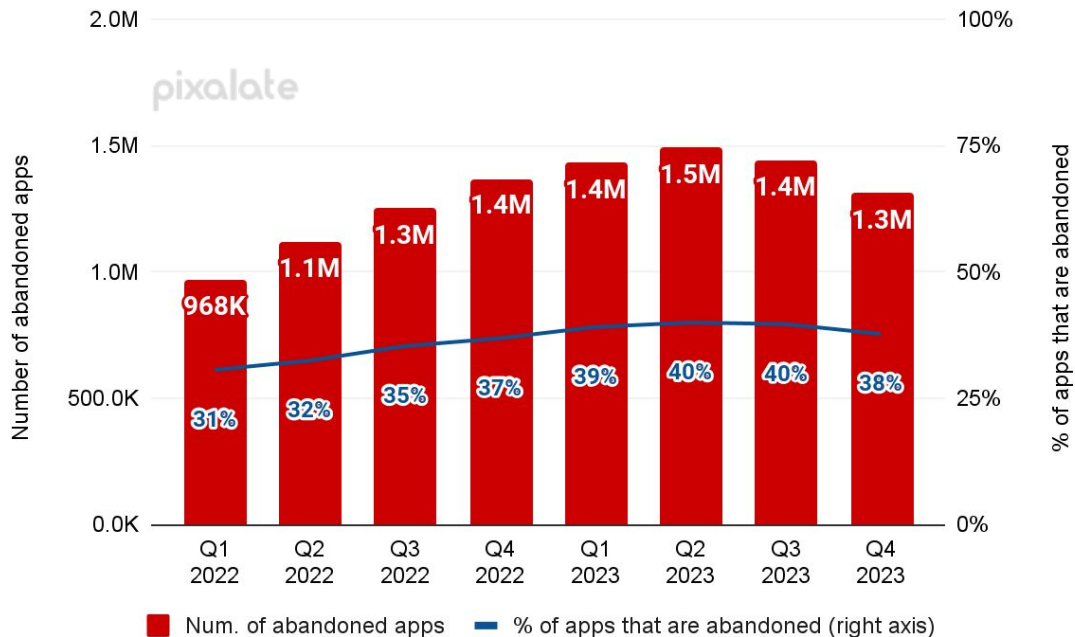
of the apps in the Google Play Store are abandoned (have not been updated in 2+ yrs), as of Q4 2023.

-4%

The total number of abandoned apps in the Google Play Store declined 4% YoY (from 1.4M in Q4 2022 to 1.3M in Q4 2023)

1.3 MILLION ABANDONED MOBILE APPS IN GOOGLE PLAY

GOOGLE PLAY STORE; QUARTERLY DATA FROM Q1 2022 TO Q4 2023; AS MEASURED BY PIXALATE



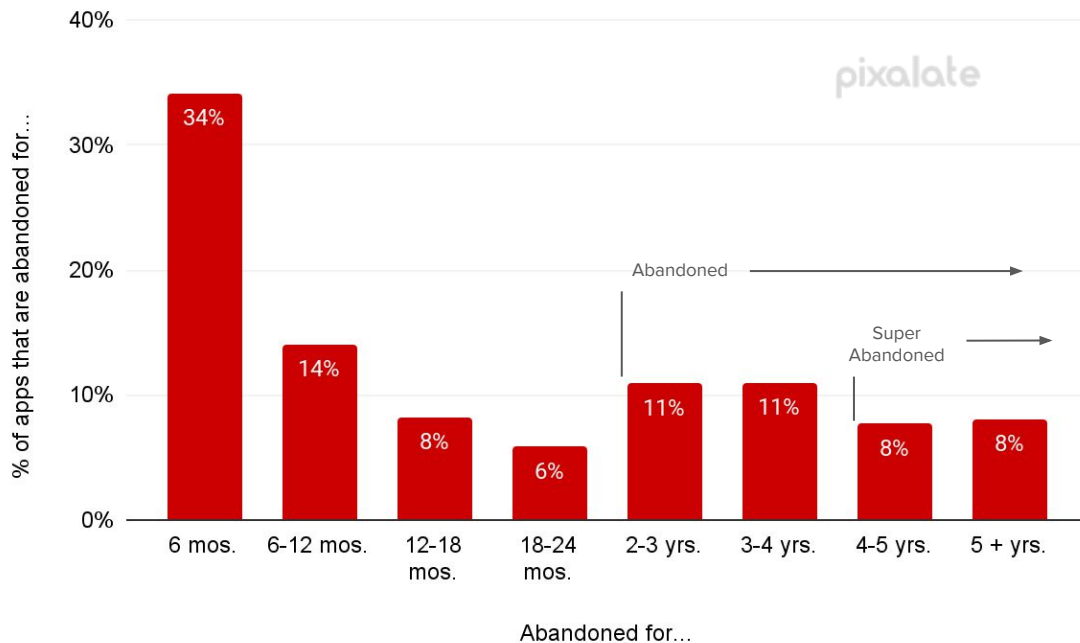


16%

% of **“Super-abandoned”** apps (not updated in +4yrs) available to download in Google Play store as of the end of Q4, 2023, according to Pivalate’s data.

449k+ “SUPER-ABANDONED” APPS (LAST UPDATE 4+ YEARS)

GOOGLE PLAY STORE; QUARTERLY DATA FROM Q1 2022 TO Q4 2023; AS MEASURED BY PIXALATE





ABANDONED APPS

ADVERTISING

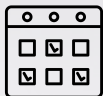
Q4 2023





-11%

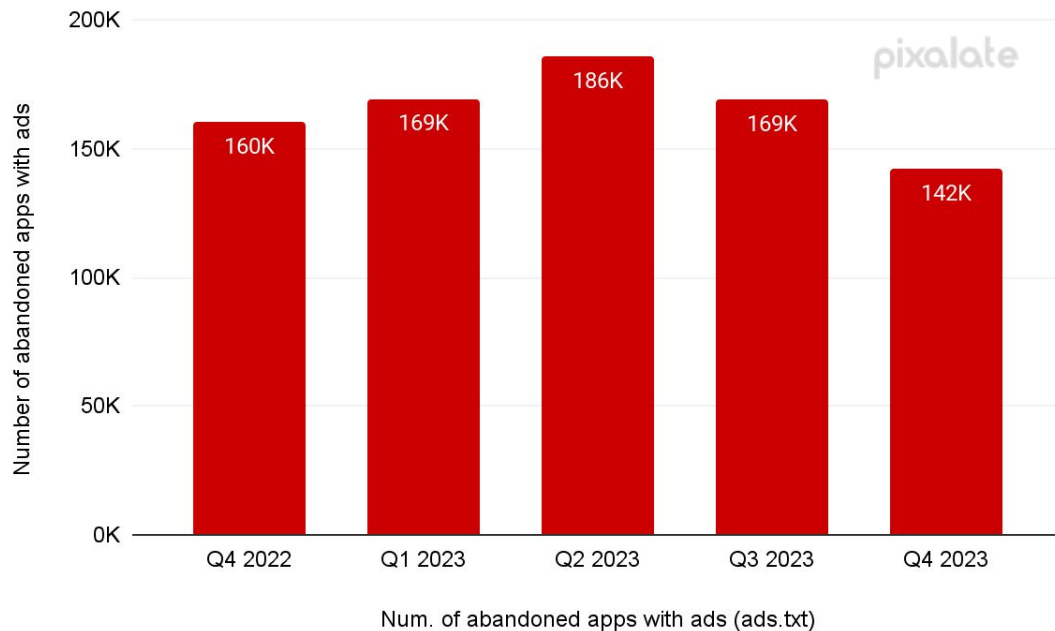
The total number of abandoned apps with ads in the Google Play Store declined 11% YoY (from 160k in Q4 2022 to 142k in Q4 2023)



Want more data?
Schedule a demo:
pixal.at/demo

142K ABANDONED APPS HAVE ADVERTISING, Q4 2023

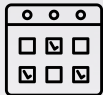
GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIXALATE





<1%

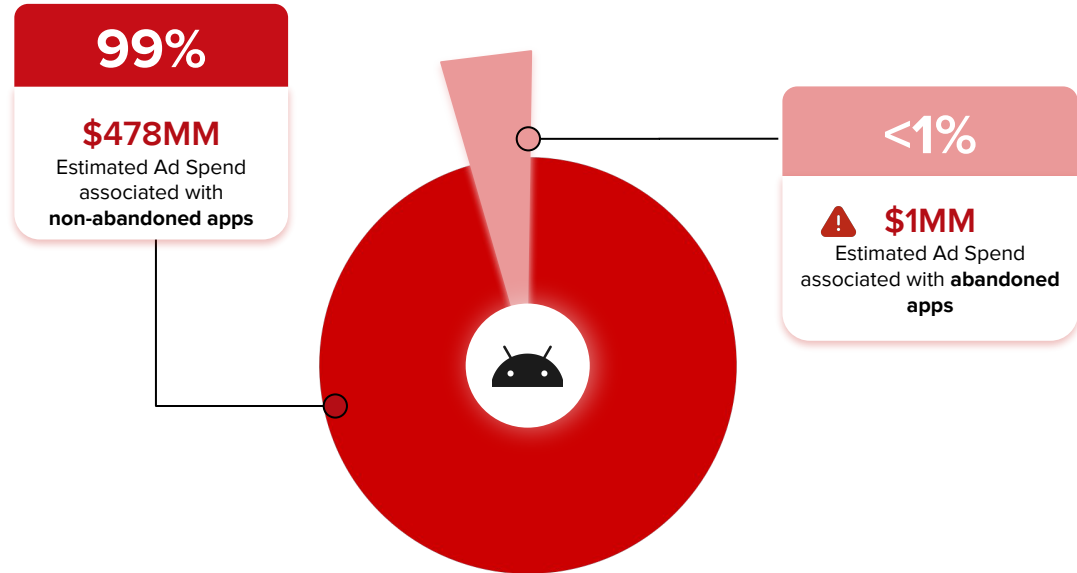
% of global monthly open programmatic ad spend associated with abandoned apps (not updated in +2yrs.) as of Q4, 2023 in Google Play, according to Pixalate's data.



Want more data?
Schedule a demo:
pixal.at/demo

GOOGLE: \$1MM ESTIMATED AD SPEND ON ABANDONED APPS

GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIXALATE



pixalate





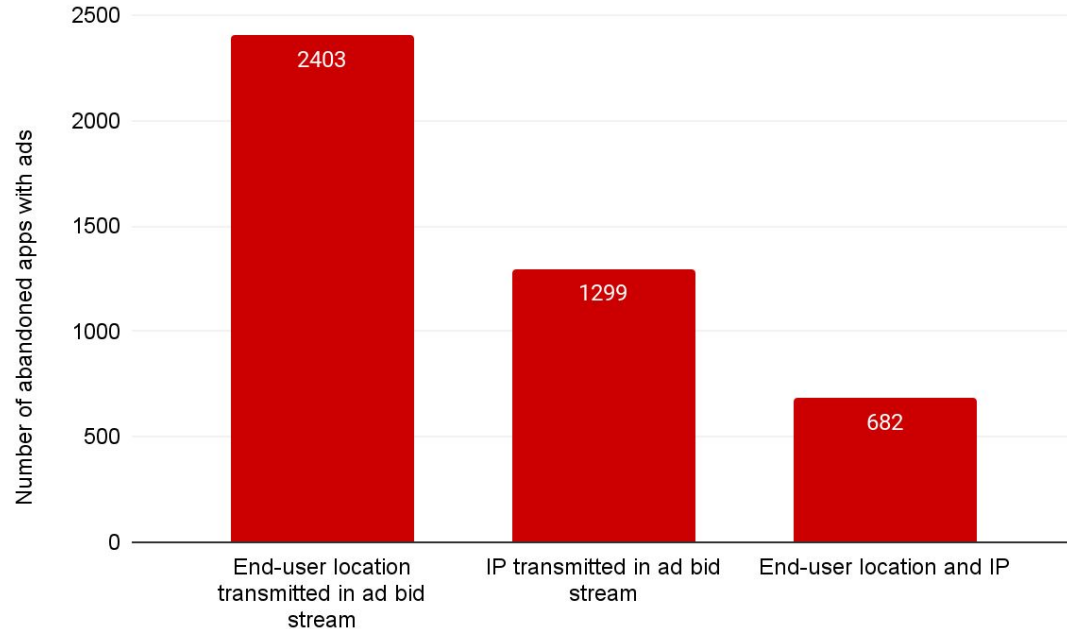
682

number of abandoned apps with ads that transmitted end-user location **and** user IP address in ad bid stream, according to Pixalate's data.

See Methodology Section for complete definitions

2.4K ABANDONED APPS SHARED USER LOCATION DATA IN THE ADVERTISING BID STREAM

GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIXALATE





ABANDONED APPS

DEVELOPER COUNTRY

Q4 2023





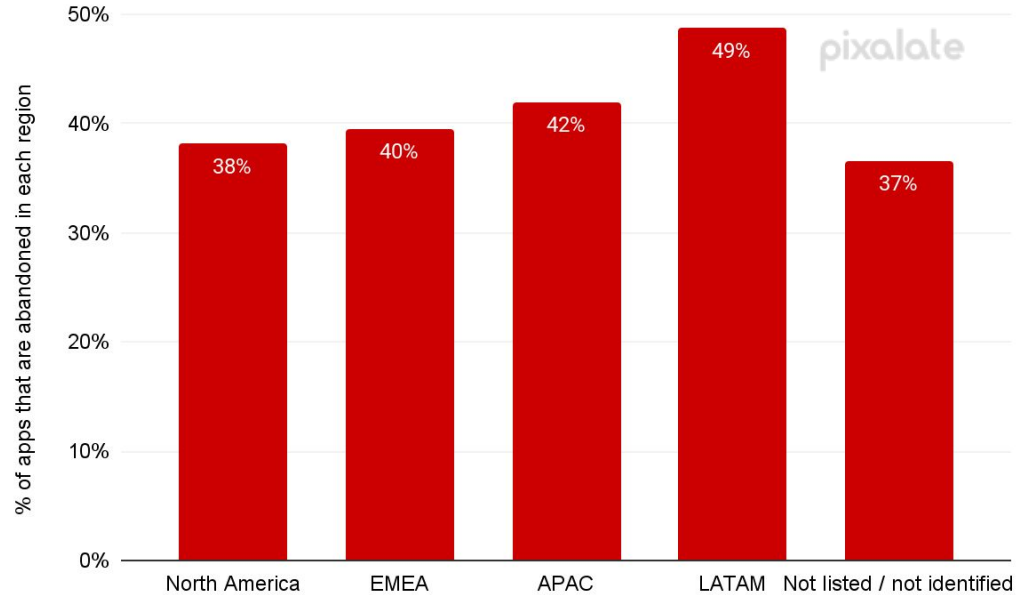
49%

% of apps registered in LATAM are abandoned (not updated in +2yrs.) as of the end of Q4 2023, according to Pivalate's data.

Region uses the developer country of registration

APPS REGISTERED IN NORTH AMERICA ABANDONED AT THE LOWEST RATE OF ANY REGION

GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIVALATE





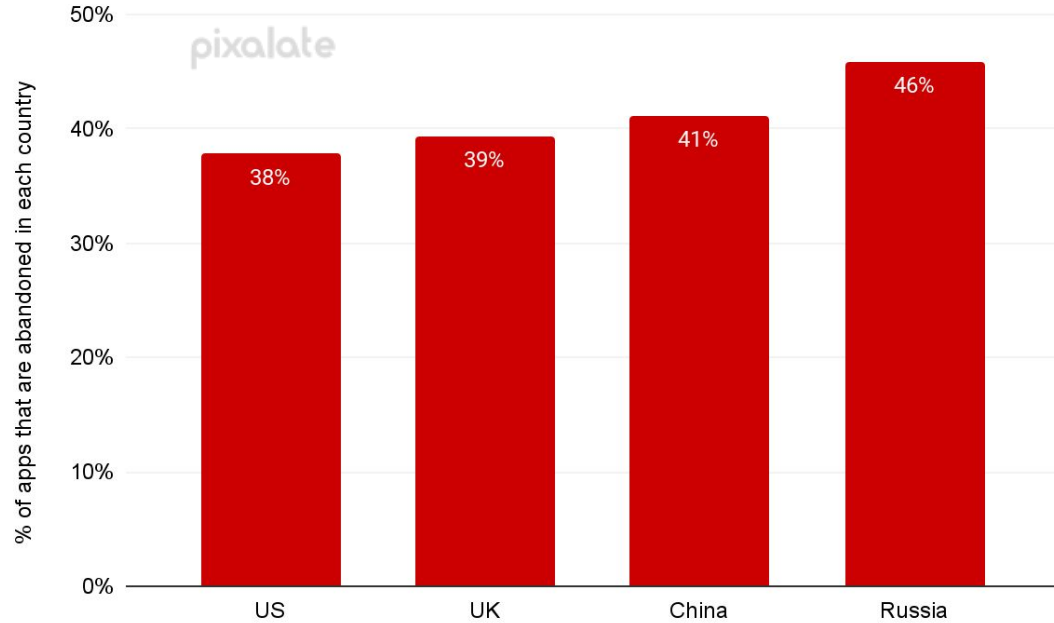
38%

% of apps registered in the US are abandoned as of the end of Q4 2023, according to Pivalate's data.

Country uses the developer country of registration

46% OF RUSSIAN REGISTERED APPS ARE ABANDONED

GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIXALATE





ABANDONED APPS

LIKELY CHILD-DIRECTED

Q4 2023





89k

of likely child-directed apps that are abandoned (out of 293k+ total likely child-directed apps available to download in Google Play store), according to Pivalate's data

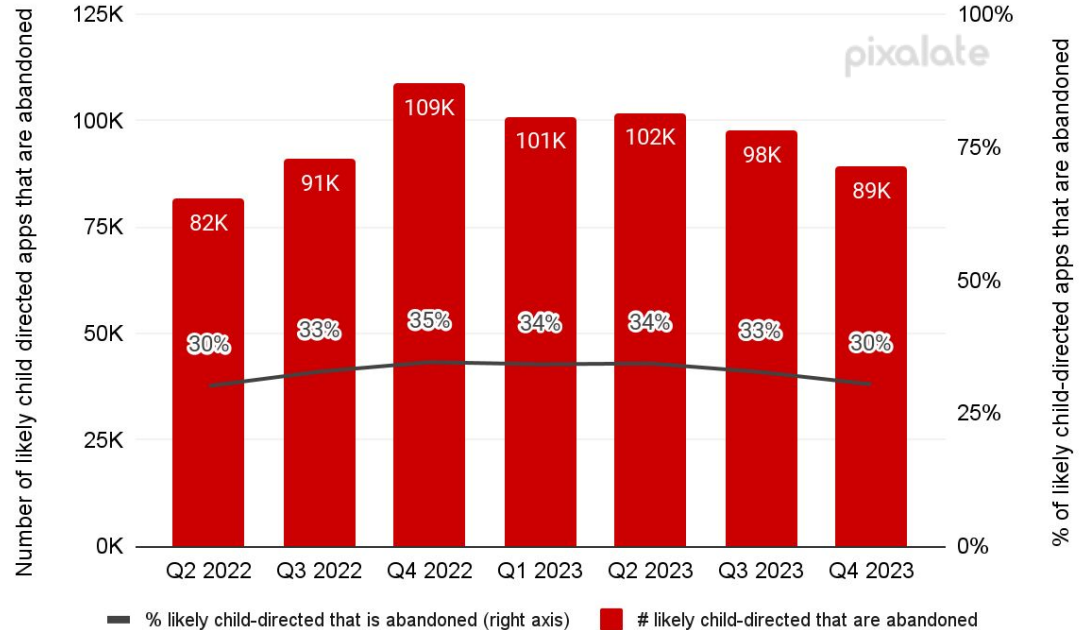
-18%

The total likely child-directed apps that are abandoned available to download in Google Play Store declined 12% YoY (from 109k in Q4 2022 to 89k in Q4 2023)



30% OF LIKELY CHILD-DIRECTED APPS ARE ABANDONED

GOOGLE PLAY STORE; AS OF THE END OF Q4 2023; AS MEASURED BY PIXALATE





METHODODOLOGY & DISCLAIMER

METHODOLOGY & DISCLAIMER

General

Pixelate's data science and analyst team analyzed apps from the Google Play Store from Q1 2022 to Q4 2023. Data is derived from crawls of the respective app stores performed by Pixelate or one of Pixelate's third party licensors.

Abandoned Apps

Pixelate uses the date of release of the current app version to determine the degree of apparent abandonment. For high-level data points, Pixelate considers an app to have a heightened risk of "abandonment" if it has not been updated in at least two years (as of the end of Q4 2023). However, this report also provides data showing different levels of apparent abandonment in six-month increments, up to apps that have not been updated in over five years. Updated apps are defined as those apps that have been updated within the last six months, and were active during Q4 2023. "Active" means the app was available for download.

Ads.txt

The ads.txt initiative from the [IAB Tech Lab](#) was launched with a mission to "increase transparency in the programmatic advertising ecosystem" by allowing publishers and other traffic rights owners "to publicly declare the companies they authorize to sell their digital inventory" with a primary goal of reducing app misrepresentation, or "spoofing."

Country of Registration

The country of registration for a given app is determined only if a) the app has a physical address published in its app store page, or otherwise b) from the registrant physical address of the publisher domain listed in the app store page excluding privately registered ones. If none is available, the physical address associated with an app cannot be determined. Sometimes, the same developer may list different countries of registration for different apps.

Estimated Ad Spend

Pixelate calculates estimated monthly programmatic ad spend through statistical models that incorporate programmatic monthly active users (MAU), the average session duration per user, the average CPM for the category of a given app, and ad density. It is expressed in USD.

Estimated Downloads

Estimated Downloads are determined based on the published number of downloads; data is derived from crawls of the respective app stores performed by Pixelate or one of Pixelate's third party licensors.

METHODOLOGY & DISCLAIMER

Likely Child-Directed Apps

Pixelate uses automated processing derived from a combination of signals to determine if an app is likely to be child-directed, as defined under the Children's Online Privacy Protection Act (COPPA). This includes the app's category, sub-category, content rating, and contextual signals (specifically, child-related keywords in app's title or the app's description). Pixelate also leverages manual app reviews of its Trust & Safety Advisory Board, reasonably conducted in-line with the express provisions of COPPA and guidelines of the Federal Trade Commission. See our [full methodology](#) for more.

Transmits IPv4/IPv6 Internet Protocol (IP) Address in ad bid stream

Pixelate examines the traffic associated with an app and determines if either an IPv4 or IPv6 address is being transmitted through the advertising pipeline.

Transmits Location in ad bid stream

Pixelate examines the traffic associated with an app and determines if the end-users' GPS coordinates are being transmitted through the advertising pipeline that exposes granular information about the user's location.

DISCLAIMER

The content of this report reflects Pixelate's opinions with respect to the factors that Pixelate believes can be useful to the digital media industry. Any data shared is grounded in Pixelate's proprietary technology and analytics, which Pixelate is continuously evaluating and updating. Any references to outside sources should not be construed as endorsements. Pixelate's opinions are just that, opinions, which means that they are neither facts nor guarantees.

Pixelate is sharing this data not to impugn the standing or reputation of any entity, person or app, but, instead, to report findings and trends pertaining to the time period studied.

ABOUT PIXALATE

Pixalate is the market-leading fraud protection, privacy, and compliance analytics platform for Connected TV (CTV) and Mobile Advertising. We work 24/7 to guard your reputation and grow your media value. Pixalate offers the only system of coordinated solutions across display, app, video, and CTV for better detection and elimination of ad fraud. Pixalate is an MRC-accredited service for the detection and filtration of sophisticated invalid traffic (SIVT) across desktop and mobile web, mobile in-app, and CTV advertising.

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