

Kochava

Traffic Index

An objective
analysis of
media partners



Kochava Traffic Index

The Kochava Traffic Index is an objective ranking of media partners based on analysis of the billions of transactions Kochava measures each quarter. The index analyzes performance on the metrics of signal clarity, fraud, quality, and correlation.

For this Index, the top performer is Amazon. Joining them in the top five are Moloco (#2), Pinterest (#3), Criteo (#4), and Unity Ads (#5).



Newcomers to the Kochava Traffic Index include AppNext (#12) and Fyber (#15).



This report is for informational purposes only and is based on data collected over several months, concluding on March 31, 2019. This report is not representative of any individual experience. Kochava makes no guarantee of any individual result. The information shown on this report is based on an algorithmic analysis of de-identified, anonymized, and aggregated data available to Kochava at the time of analysis. Future reports and results are subject to change. All available partner integrations were considered. Kochava does not accept payment or sponsorship money from any media source in exchange for a position or inclusion in this report.



Kochava Traffic Index

What's different about the Kochava Traffic Index?

- 1 **Volume is not the best predictor of ROI.** Our industry has become so cluttered with false data that any ranking based heavily on conversion volume and its perceived return on investment (ROI) is misleading. The relationship between ad signal (impressions and clicks) from partners and conversion trends more accurately predicts the success of your marketing.
- 2 **Fraud detection is critical, and complicated.** Every marketer is losing money to fraud, it's just a matter of how much. Kochava has the most aggressive, accurate fraud tools in the industry, and we use them to evaluate media partners for this report.
- 3 **Correlation matters.** If you see more clicks, yet fewer installs, something is amiss. Marketers want to work with media partners that have the most reliable, clean traffic, and this index is designed to help you find them.

The methodologies we developed are designed to equally and objectively analyze media partners. Media partners may not sponsor, reward, or influence their position in the ranking.

The walled gardens of self-attributing media partners (SANs) like Facebook and Google do not pass the full stream of impression and click data to third-party measurement providers. Because of this, they are excluded from the general index and are ranked in their own category on page 29 of this report. Retargeting traffic was not incorporated in this index.

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Insights





Reduction in Install Fraud

Q1 2019 INSIGHTS

Q1 2019 saw a significant drop in the volume of installs flagged as fraudulent. From Q4 2018 to Q1 2019, global install volume flagged for fraud dropped by 30%. The drop for North America was even larger at just over 40%. This is an excellent trend, indicative of media partners' diligence in taking action against fraud, but it also results from a natural drop following the holiday season, which tends to be a high target time period for fraudsters.

GLOBAL



~
↓ **30%**

NORTH AMERICA



~
↓ **40%**



The Rise of Amazon Continues

Securing the top overall rank in our Q1 2019 index, Amazon is continuing its ascent within the advertising ecosystem. Having doubled its ad revenue to \$6 billion in 2018, Amazon is off to a strong start in 2019. Across the Kochava measurement base, Amazon app install volume for Q1 2019 rose by 49% over Q4 2018. Amazon's premium data on consumer habits and purchasing behavior are driving strong and consistent results. In addition to winning top placement, Amazon achieved the highest grade scoreboard in the history of the Index to date.



Top 5 Tighten Up CTI Ratio

Q1 2019 INSIGHTS

In Q1 2019, the average click-to-install (CTI) ratio among the top 5 ranked partners in the overall index reached an impressive low of 22:1. The same metric for Q3 2018 was: 52:1 . In Q4 2018 it was: 62:1.



Exorbitantly high click-to-install ratios are an indicator of click flooding—a basic tactic of ad fraud—albeit increasingly less effective given ongoing improvements in detection and prevention. Between Q3 and Q4 2018, we witnessed a significant decrease in the average click-to-install (CTI) ratio among the top 20 rankings overall. This latest tightening up of the CTI ratio among the top five ranking media partners indicates that efforts to curb click flooding are working.

Traffic Index



Kochava Traffic Index

TOP 20 MEDIA PARTNERS OVERALL : Q1-2019

MEDIA PARTNER	SIGNAL CLARITY	FRAUD	QUALITY	CORRELATION	RANK
Amazon	B	A+	A+	A	1
Moloco	B-	A	C+	A-	2
Pinterest	B	B	A	B	3
Criteo	C-	A	C+	B+	4
Unity Ads	B	B+	C	C	5
AppLike	D	C	A	A+	6
LifeStreet	D	B-	B-	A	7
Pinsight Media	D	A-	C	B-	8
AppLovin	B	B-	B	D+	9
Chartboost	B-	C	B	C+	10
PINCRUX	D	A+	F	C+	11
Appnext	C	B	D-	B	12
Pandora	C-	C+	B	C+	13
Vungle	B-	B	C	D	14
Fyber	B-	D	F	A+	15
StartApp	B	C	F	C	16
InMobi	B-	C-	C+	C	17
CrossInstall	C	B	D+	D	18
Jampp	B	C+	B-	F	19
Liftoff	B	B	C+	F	20

Signal Clarity





SIGNAL CLARITY
KOCHAVA TRAFFIC INDEX






Signal Clarity

What ad creative was displayed? Which publisher served the ad for the partner? What installs and events resulted from it? These are insights that the marketer, measurement provider, and partner rely on to perform optimally.

Signal clarity assesses the integrity, reliability, and breadth of the data stream media partners send to and receive from Kochava. Ad signal sent from media partners to Kochava is composed of impression and click transactions, where partners can pass valuable data (such as device ID, creative ID, transaction ID, etc.). This data informs attribution, optimization, fraud prevention, and more.

The postback signal sent from Kochava reports the attribution outcomes to the partner. Partners use this signal for optimization, suppression/retargeting list building, and more. The more data the partner receives from Kochava, the greater the signal clarity. Consideration is also given to partner uptime and failures or outages.

Top five media partners for signal clarity:

MEDIA PARTNER	SIGNAL CLARITY	RANK
	<div>B</div>	<div>1</div>
	<div>B</div>	<div>2</div>
	<div>B</div>	<div>3</div>
	<div>B</div>	<div>4</div>
	<div>B</div>	<div>5</div>

*Self-attributing networks (SANs) like Facebook and Google are excluded because they do not pass full impression and click data to third-party measurement providers. SANs command a majority of the digital ad revenue in the industry and are at the top of any ranking of media partners.

Fraud





FRAUD
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Fraud

Can you trust your ad signal? Ad signal is the stream of impressions and clicks sent by your media partners, and if it's polluted by fraud, the resulting attribution data is tainted as well. Strategic decisions based on that data will be compromised. This is why a clean, quality ad signal is essential.

Fraud may be rampant, but the industry isn't powerless against it. Marketers who work with their partners to reduce fraud can expect to save a minimum of 8% to 15% of their ad spend. Fraud is the most heavily weighted metric. Even a partner with good ratings and performance in other categories will be significantly degraded by high levels of fraud in their traffic. The fraud metric looks at what percentage of a partner's overall traffic is fraudulent.

Learn more about Kochava Fraud Prevention at [Kochava.com/fraud](https://kochava.com/fraud).

Top five media partners with the lowest percentage of fraud in their traffic:

MEDIA PARTNER	FRAUD	RANK
	A+	1
	A+	2
	A	3
	A	4
	A-	5

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Quality





QUALITY
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Quality

With the heavy churn most marketers battle every day, media partners that can deliver quality users who engage with an app long term are powerful partners.

An acquired user who exhibits little to no post-install activity lacks value to a marketer. On the contrary, a user who engages with the app across time holds great value and is considered high quality.

Long-term retention of users is determined by the existence of post-install events 31 to 60 days past the install date. Media partners with a high percentage of long-term retained users are considered to have high quality traffic.

Top five media partners with high quality traffic:

MEDIA PARTNER	QUALITY	RANK
	A+	1
	A	2
	A	3
	B	4
	B	5

*Self-attributing media partners (SANs) like Facebook and Google are excluded because they do not pass full impression and click data to third-party measurement providers. SANs command a majority of the digital ad revenue in the industry and are at the top of any ranking of media partners.

Correlation





CORRELATION
KOCHAVA TRAFFIC INDEX






Correlation

A marketer should be able to plan the number of clicks they'll need in order to drive their install goals—that's based on correlation. When correlation is poor or absent, marketers are hindered from extrapolating trends and forming marketing strategies. This is an all-too-common headache for marketers.

In a healthy marketing curve, more ads served and clicked on should lead to more installs. In reality, there is often no correlation between the number of clicks (or the increase in the number of clicks) and the number of installs. Even instances of inverse correlation are not infrequent. This indicates a problem with the traffic.

High correlation alone doesn't equate to clean traffic, but in conjunction with a good fraud score, it's an indicator of the overall health of the traffic coming from particular partner.

Top five media partners for high correlation:

MEDIA PARTNER	CORRELATION	RANK
 applike	A+	1
 Fyber	A+	2
 amazon	A	3
 LIFESTREET	A	4
 HOLOCO	A-	5

*Self-attributing media partners (SANs) like Facebook and Google are excluded because they do not pass full impression and click data to third-party measurement providers. SANs command a majority of the digital ad revenue in the industry and are at the top of any ranking of media partners.

Attribution Method









**DETERMINISTIC
ATTRIBUTION**
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Deterministic Attribution

Kochava performs mobile attribution by tying installs and post-install events to a specific marketing campaign. Accurately matching in-app events to the correct channel (media partner) relies on two methods of mobile attribution in marketing: deterministic and probabilistic.

Deterministic attribution is based on an anonymous device ID that sends data about a click or impression. That information is matched to a downstream install or event using the same ID. Since device IDs are only collected from a mobile app, deterministic attribution is used as a proxy for in-app inventory.

Top five media partners for deterministic attribution:

MEDIA PARTNER	RANK
	1
	2
	3
START/APP	4
	5




**PROBABILISTIC
ATTRIBUTION**
KOCHAVA TRAFFIC INDEX

Probabilistic Attribution

There are instances where deterministic attribution is not possible. Users may reset device IDs, or click on a display ad on a mobile site. In cases where a device ID is not available, Kochava uses probabilistic attribution.

Probabilistic attribution is based on comparisons of non-unique device characteristics, including IP address and user agent (one way a web browser identifies itself to a web server) from the click and the install. Because these identifying characteristics are not unique, probabilistic attribution is less accurate than deterministic. However, it is a way to perform attribution when a user clicks from within the mobile web. In the context of paid media, probabilistic attribution can be used as a proxy for mobile web inventory.

Top five media partners for probabilistic attribution:

MEDIA PARTNER	RANK
PINCRUX	1
 APPLOVIN	2
pandora	3
LIFESTREET	4
jampp	5






Region








Region

Top five media partners by region:






APAC

MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






EMEA

MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






India

MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Latin America






MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






North America

MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Platform

Top five media partners by platform:

iOS	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






Android	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






Category













Category






Top five media partners by app category:




Books & Reference	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Entertainment	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Food & Drink	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






Games	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5






Lifestyle	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Music	
MEDIA PARTNER	RANK
	1
	2
	3
	4
	5

Category

Top five media partners by app category:

Social & Communication	
MEDIA PARTNER	RANK
 unity ADS	1
 criteo.	2
 APPLOVIN	3
 jampp	4
 inMOBI	5

Sports	
MEDIA PARTNER	RANK
 Chartboost	1
 MOLOCO	2
 APPLOVIN	3
 LIFTOFF	4
 inMOBI	5

Self-Attributing Networks










SAN
KOCHAVA TRAFFIC INDEX

Self-Attributing Networks

Self-attributing networks (SANs), such as Facebook and Google, form a distinct class due to how their integrations operate. Within self-attributing environments, only the impression and/or click data used to claim a conversion is sent to third-party measurement providers, rather than the full stream of data. SANs regularly lead any performance ranking because of their market share; however, the absence of full scope impression and click data makes an apples-to-apples comparison with non-SAN media partners incomplete.

For these reasons, SANs are ranked here in their own category based on the quality metric. Quality is determined by long-term retention of users based on the existence of post-install events 31 to 60 days past the install date. SANs with a high percentage of long-term retained users are considered to have high-quality traffic.

Top five self-attributing networks with high quality traffic:

MEDIA PARTNER	RANK
	1
 Search Ads	2
 snapchat	3
	4
	5

The Metrics



Detailed below are the calculation and scoring methodologies for each of the four algorithms: signal clarity, fraud, quality, and correlation. Partners must drive at least 50,000 installs per quarter to be included for consideration in the ranking. Self-attributing networks (SANs) like Facebook and Google do not pass the full stream of impression and click data to third-party measurement providers, and are therefore excluded from the general index, but are ranked in their own category.

In serving marketers, Kochava recognizes the importance of working with media partners to help them improve. A partner may submit a written request to support@kochava.com for a full, transparent report of the data that informed their rankings. Sample snapshots of the report format and contents are included under each metric. Media partners with 50,000 or more attributed installs in a quarterly time frame, regardless of inclusion in the released rankings, are eligible to receive this report at no charge.



Signal Clarity

THE METRICS

We measure the percentage of each transaction that captures the minimally required data elements to drive accurate attribution. We also consider the cardinality (measure of distinct elements) and uniqueness of clicks per site (publisher) ID.

- **Clicks:** device ID, site ID, click ID, creative ID
- **Postbacks:** install, event
- **Impressions:** device ID, site ID, creative ID
- Percentage of low cardinality sites

Each transaction receives credit for every valid element passed. The total number of valid transactions is divided into the total number of transactions to determine the percent of transactions that received complete data. The click and impression data completeness rates are weighted equally at 25% each.

The percent of integrations with a media partner that accept postbacks for installs and events (weighted equally) determines the postback percent. Postbacks support makes up 25% of the overall signal clarity score.

Low cardinality site ID percent is determined by taking the count of site IDs that have more than two clicks and dividing it into the total count of site IDs. Low cardinality site ID percent makes up 25% of the overall signal clarity score.

≥90% = A 80%-89% = B 70%-79% = C 60%-69% = D ≤59% = F



KTi Summary—Media Partner Details

Network Name - ID
Network ABC

Time Range
2018-10-01 - 2018-12-31

Attribution Method
All

Region
All

Application Platform
All

Application Category
All

Account Name	Total Clicks	Click % w/ Device ID	Click % w/ Site ID	Click % w/ Creative	Click % w/ Click ID	Click Complete Count	Complete Click %	Total Impressions	Imp % w/ Device ID	Imp % w/ Site ID	Imp % w/ Creative	Imp % w/ Event Type	Imp Complete Count	Complete Impression %
Total	1,064,680,875	95%	99%	45%	0%	640,881,287	59.71%	5,479,399,359	84%	88%	43%	100%	4,414,125,701	80.56%

Account Name	Install Postback %	Event Postback %	Total Postback %	Low Cardinality Site ID %
Total	56.00%	15.00%	35.50%	55.00%

Account Name	Total Clicks	Click % w/ Device ID	Click % w/ Site ID	Click % w/ Creative	Click % w/ Click ID	Click Complete Count	Complete Click %	Total Impressions	Imp % w/ Device ID	Imp % w/ Site ID	Imp % w/ Creative	Imp % w/ Event Type	Imp Complete Count	Complete Impression %
Account A	212,784,540	100%	100%	21%	0%	117,563,458	55.25%	1,652,982,571	92%	100%	70%	100%	1,487,678,710	90.00%
Account B	200,017,468	100%	100%	24%	0%	112,009,782	56.00%	1,157,087,800	71%	100%	46%	100%	948,808,082	82.00%
Account C	138,012,053	100%	100%	81%	0%	96,953,467	70.25%	775,248,826	78%	0%	72%	100%	444,473,391	57.33%
Account D	126,971,088	100%	100%	66%	0%	84,435,774	66.50%	410,881,878	98%	100%	25%	100%	308,160,022	75.00%
Account E	88,879,762	100%	100%	8%	0%	46,217,476	52.00%	258,855,583	70%	100%	99%	100%	257,991,851	99.67%
Account F	78,214,190	100%	100%	86%	0%	55,923,146	71.50%	201,907,355	98%	100%	45%	100%	164,890,324	81.67%
Account G	48,492,798	100%	100%	39%	0%	28,974,447	59.75%	195,850,134	78%	100%	4%	100%	133,177,432	68.00%
Account H	42,673,662	100%	100%	35%	0%	25,070,777	58.75%	174,306,619	76%	100%	69%	100%	156,294,344	89.67%
Account I	32,858,720	100%	100%	6%	0%	16,922,241	51.50%	170,820,487	99%	100%	100%	100%	170,819,906	100.00%



Fraud

THE METRICS

We measure rates of fraud for both clicks and installs (weighted 1:4 clicks to installs) across the following fraud algorithms:

- All blacklisted sites, IP addresses, and devices
- Click flooding site IDs with $\geq 1000:1$ click-to-install ratio on at least one app

We then rank media partners based on the lowest to highest percentage of fraud. The total transactions divided by total fraud transactions defines the percentage of total fraud for each click and install. The weighted percentage of total fraudulent transactions is then ranked across all media partners. Scoring is done on a curve; media partners with the lowest percentage of fraud score the highest.

Top 10% = A 11%-30% = B 31%-70% = C 71%-90% = D Bottom 10% = F



KTi Summary—Media Partner Details

Network Name - ID
Network ABC

Time Range
2018-10-01 - 2018-12-31

Attribution Method
All

Region
All

Application Platform
All

Application Category
All

Account Name	Total Click Count	Fraud Click Count	% Fraud Clicks	Total Install Count	Fraud Install Count	% Fraud Installs
Total	1,060,023,237	559,973,435	52.83%	8,701,509	2,219,737	25.51%

Account Name	Total Click Count	Fraud Click Count	% Fraud Clicks	Total Install Count	Fraud Install Count	% Fraud Installs
Account A	212,784,540	182,994,704	86.00%	4,527,361	1,267,661	28.00%
Account B	200,017,468	44,003,843	22.00%	758	30	4.00%
Account C	138,012,053	77,286,750	56.00%	539,130	248,000	46.00%
Account D	126,971,088	13,966,820	11.00%	62,757	18,827	30.00%
Account E	88,879,762	77,325,393	87.00%	2,222,069	399,972	18.00%
Account F	78,214,190	64,917,778	83.00%	32,623	16,964	52.00%
Account G	48,492,798	484,928	1.00%	11,534	5,190	45.00%
Account H	42,673,662	16,215,992	38.00%	169	56	33.00%

Site ID	Total Click Count	Fraud Click Count	% Fraud Clicks
Publisher A	3,457,722	2,420,405	70.00%
Publisher B	3,899,173	2,300,512	59.00%
Publisher C	1,698,794	866,385	51.00%
Publisher D	4,852,669	2,814,548	58.00%
Publisher E	3,731,807	1,231,496	33.00%
Publisher F	3,878,196	2,133,008	55.00%
Publisher G	4,973,958	2,486,979	50.00%
Publisher H	4,813,382	3,321,234	69.00%

Site ID	Total Click Count	Fraud Click Count	% Fraud Clicks
Publisher A	84	76	91.00%
Publisher B	81	76	94.00%
Publisher C	614125	571136	93.00%
Publisher D	7225	6792	94.00%
Publisher E	85184	66444	78.00%
Publisher F	40	32	80.00%
Publisher G	912673	730138	80.00%
Publisher H	1000000	930000	93.00%



Quality

THE METRICS

The percent of retained devices for a partner/app combination is indexed against all other media partners for the same app. These indexed values are averaged across all apps for the partner and weighted by install volume per app. These weighted index values are then ranked across all media partners.

Top 10% = A 11%-30% = B 31%-70% = C 71%-90% = D Bottom 10% = F



KTI Summary—Media Partner Details

Network Name - ID
Network ABC

Time Range
2018-10-01 - 2018-12-31

Attribution Method
All

Region
All

Application Platform
All

Application Category
All

Application Name	Install Count	Retained Install Count	Long Term Retention Rate	Overall Avg Retention Rate
App 1	14,369	3,514	24.46%	11.60%
App 2	140,208	39,240	27.99%	20.80%
App 3	166,763	80,471	48.25%	9.80%
App 4	137,093	22,560	16.46%	26.50%
App 5	58,596	20,606	35.17%	17.90%
App 6	65,093	11,911	18.30%	18.70%
App 7	193,965	32,430	16.72%	9.30%
App 8	72,602	10,828	14.91%	0.00%
App 9	39,429	6,396	16.22%	0.00%

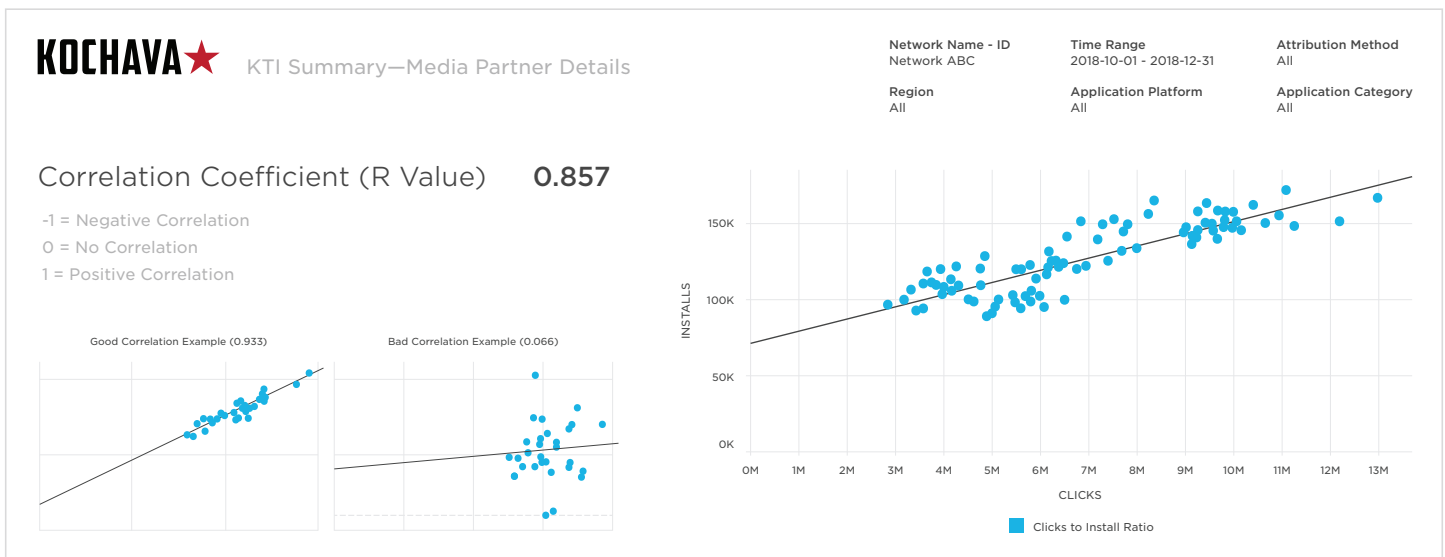


Correlation

THE METRICS

We look for correlation between install volume and click volume by day within the partner. Media partners with a high correlation between clicks and installs are scored the highest. To reduce instances where a limited number of high-volume days causes falsely high correlation, media partners must have a minimum of 21 days in a month with at least 100 installs per day for consideration. Also, any partner/day combination that is determined an outlier (+/- 3 standard deviations within the partner) is not included in the pool of data evaluated.

Top 10% = A 11%-30% = B 31%-70% = C 71%-90% = D Bottom 10% = F



Still have questions?

support@kochava.com

