

Google Analytics



MAY 29, 2022

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INTRODUCTION TO GOOGLE ANALYTICS

GOOGLE ANALYTICS IS A FREE WEB ANALYTICS SERVICE OFFERED BY GOOGLE. IT HELPS WEBSITE AND APP OWNERS (BOTH ORGANISATIONS AND INDIVIDUALS) TRACK AND REPORT ON ALL KINDS OF DATA FROM THEIR USERS (ON HOW USERS INTERACT WITH YOUR WEBSITE). ONCE THE DATA IS COLLECTED, GOOGLE ANALYTICS SORTS THE DATA INTO EASY-TO-READ INTERACTIVE REPORTS, WHICH IS WHAT WE SEE IN THE PLATFORM.

GOOGLE PURCHASED THE WEB STATISTICS ANALYSIS COMPANY URCHIN IN 2005, FORMING GOOGLE ANALYTICS SHORTLY AFTER. SINCE ITS LAUNCH, IT'S GROWN TO BECOME THE MOST WIDELY USED WEB ANALYTICS SOFTWARE ON THE INTERNET.

YOU CAN ADD UP TO 100 PROPERTIES (ANY COMBINATION OF UNIVERSAL ANALYTICS AND GOOGLE ANALYTICS 4 PROPERTIES) TO AN ANALYTICS ACCOUNT. TO RAISE THIS LIMIT, CONTACT YOUR SUPPORT REPRESENTATIVE.



Urchin from Google
2005

⋮



⋮
Classic Google Analytics
2007



Universal Analytics
2012

⋮

⋮
Google Analytics 4
2020



UNIVERSAL ANALYTICS WILL BE GOING AWAY

GOOGLE ANALYTICS 4 IS OUR NEXT-GENERATION MEASUREMENT SOLUTION, AND IT'S REPLACING UNIVERSAL ANALYTICS. ON JULY 1, 2023, STANDARD UNIVERSAL ANALYTICS PROPERTIES WILL STOP PROCESSING NEW HITS. IF YOU STILL RELY ON UNIVERSAL ANALYTICS, WE RECOMMEND THAT YOU PREPARE TO USE GOOGLE ANALYTICS 4 GOING FORWARD.

READ MORE -

[HTTPS://SUPPORT.GOOGLE.COM/ANALYTICS/ANSWER/11583528](https://support.google.com/analytics/answer/11583528)

HOW TO INSTALL GA4 ON WEBSITE

- [HTTPS://SUPPORT.GOOGLE.COM/ANALYTICS/ANSWER/9744165](https://support.google.com/analytics/answer/9744165)
- [HTTPS://SUPPORT.GOOGLE.COM/ANALYTICS/ANSWER/9304153](https://support.google.com/analytics/answer/9304153)
- [HTTPS://WWW.CARDINALPATH.COM/BLOG/IMPLEMENTING-GOOGLE-ANALYTICS-4-ON-YOUR-WEBSITE](https://www.cardinalpath.com/blog/implementing-google-analytics-4-on-your-website)
- [HTTPS://WWW.BOUNTEOUS.COM/INSIGHTS/2020/06/02/IMPLEMENT-GOOGLE-ANALYTICS-4-PROPERTIES-WEBSITE-MOBILE-APP/](https://www.bounteous.com/insights/2020/06/02/implement-google-analytics-4-properties-website-mobile-app/)

LIFE CYCLE COLLECTION

THE LIFE CYCLE COLLECTION INCLUDES THE FOLLOWING REPORTS THAT HELP YOU UNDERSTAND USER ACTIVITY FROM ACQUISITION TO CONVERSION:

- ACQUISITION FOCUSES ON NEW AND RETURNING USERS AND THE METHOD OF ACQUISITION (E.G. MEDIUM, SOURCE, CAMPAIGN).
- ENGAGEMENT SHOWS USER ACTIVITY BY EVENT COUNT, THE AMOUNT OF TIME USERS ENGAGE WITH YOUR SITE OR APP, AND THE NUMBER OF TIMES USERS RETURN TO YOUR SITE OR APP.
- MONETIZATION HELPS YOU UNDERSTAND THE REVENUE YOU GENERATE THROUGH ECOMMERCE PURCHASES, IN-APP PURCHASES, SUBSCRIPTIONS, AND MOBILE ADS.
- RETENTION COVERS HOW EFFECTIVELY YOU'RE ABLE TO TURN NEW USERS INTO RETURNING USERS AND THE PERCENTAGE OF USERS WHO KEEP RETURNING.

ANALYTICS REPLACES THE LIFE CYCLE COLLECTION WITH THE GAMES REPORTING COLLECTION WHEN EITHER YOUR INDUSTRY CATEGORY IS SET TO GAMES OR AT LEAST 50% OF YOUR APP STREAMS ARE ASSOCIATED WITH APPS THAT ARE CATEGORIZED AS GAMES.

REALTIME REPORTS IN GA4

THE REALTIME REPORT IS ORGANIZED INTO CARDS, WHICH MAY BE LAID OUT DIFFERENTLY FOR YOU DEPENDING ON THE SIZE OF YOUR BROWSER. REGARDLESS, THEY WILL BE IN THE FOLLOWING ORDER:

- OVERVIEW CARD OF USERS WITHIN THE LAST 30 MINUTES
- USERS BY SOURCE CARD (USERS BY SOURCE, MEDIUM, OR CAMPAIGN)
- USERS BY AUDIENCE CARD (ALL USERS OR NEW USERS)
- VIEWS BY PAGE TITLE AND SCREEN NAME CARD (VIEWS BY PAGE TITLE OR SCREEN NAME)
- EVENT COUNT CARD
- CONVERSIONS COUNT CARD
- USER PROPERTY CARD

THE GA4 REALTIME REPORT ALSO OFFERS THE ABILITY TO RANDOMLY VIEW THE ACTIVITY OF SINGLE USERS WHO ARE CURRENTLY VISITING YOUR SITE RIGHT NOW. TO VIEW THE SNAPSHOT CLICK ON THE VIEW USER SNAPSHOT BUTTON IN THE TOP RIGHT CORNER.

THIS WILL TAKE YOU TO AN OVERVIEW OF A RANDOM USER WHERE YOU CAN VIEW AT A GLANCE HOW THE USER CAME TO YOUR SITE, WHAT EVENTS THE USER HAS TRIGGERED, WHERE THEY'RE BASED, AND WHAT DEVICE IS BEING USED.

BENEFITS OF REALTIME REPORTING

REALTIME REPORTING IN GA4 PROVIDES YOU WITH INVALUABLE KNOWLEDGE THAT CAN BE USED TO TEST YOUR MARKETING CAMPAIGN, TROUBLESHOOT IN REAL TIME, MONITOR WEB TRAFFIC, AND REVIEW YOUR GOALS.

FOR EXAMPLE, YOU CAN SEE WHICH MARKETING EFFORTS ARE DRIVING MORE TRAFFIC TO YOUR WEBSITE, AND EVEN USE THIS INFORMATION TO ADJUST YOUR CAMPAIGNS IN REAL-TIME. THIS WILL ALSO ALLOW YOU TO QUICKLY DISCOVER WHAT TYPE OF CONTENT DRIVES THE MOST ENGAGEMENT AND ADJUST ACCORDINGLY. THIS IS INCREDIBLY USEFUL AS A PUBLISHER OR CONTENT CREATOR WHO NEEDS TO QUICKLY AND CONSTANTLY TWEAK THINGS TO DRIVE MORE ENGAGEMENT OR CONVERSIONS ON THEIR SITE.

ANOTHER GREAT EXAMPLE IS USING REALTIME REPORTING TO TROUBLESHOOT YOUR CAMPAIGN TAGGING. IF YOU JUST LAUNCHED A NEW CAMPAIGN BUT YOU DON'T SEE TRAFFIC COMING IN VIA REALTIME REPORTING, OR IT'S NOT COMING IN WITH THE APPROPRIATE CAMPAIGN PARAMETERS, THEN YOU WILL BE ABLE TO QUICKLY DIAGNOSE THE ISSUE AND UPDATE IT WITH A FIX.

ACQUISITION REPORTS IN GA4

THE ACQUISITION REPORTS SHOW YOU WHERE NEW AND RETURNING USERS ARE COMING FROM. FOR EXAMPLE, YOU CAN USE THE REPORTS TO SEE HOW MANY USERS FOUND YOUR WEBSITE USING GOOGLE SEARCH.

THE FOLLOWING REPORTS APPEAR BY DEFAULT:

- ACQUISITION OVERVIEW SUMMARIZES YOUR ACQUISITION DATA
- USER ACQUISITION SHOWS HOW YOU FIRST ACQUIRED THE USERS WHO WERE ACTIVE IN THE CHOSEN DATE RANGE
- TRAFFIC ACQUISITION SHOWS NEW SESSIONS FROM NEW AND RETURNING USERS IN THE CHOSEN DATE RANGE
- GOOGLE ADS CAMPAIGNS SHOWS GOOGLE ADS CAMPAIGN DATA WHEN YOU INTEGRATE WITH GOOGLE ADS

ACQUISITION REPORTS IN GA4

ACQUISITION (SOURCE, MEDIUM, LOCATION ETC)

- ACQUISITION OVERVIEW
- USER ACQUISITION
- TRAFFIC ACQUISITION

IN GOOGLE ANALYTICS 4, THE TRAFFIC ACQUISITION REPORT LETS YOU SEE HOW USERS ARE ARRIVING AT YOUR SITE BY IDENTIFYING THEIR ENTRANCE SOURCE. THE TRAFFIC ACQUISITION REPORT TELLS YOU WHERE USERS CAME FROM, INCLUDING ORGANIC SEARCH, PAID CAMPAIGNS, SOCIAL MEDIA, ETC.

YOU CAN USE THE INFORMATION IN YOUR TRAFFIC ACQUISITION REPORT TO MAKE DECISIONS ABOUT FUTURE MARKETING CAMPAIGNS AND DETERMINE THE EFFICACY OF YOUR WEBSITE AND CURRENT MARKETING EFFORTS.

WHY IS THE TRAFFIC ACQUISITION REPORT IMPORTANT?

IF YOU ARE RESPONSIBLE FOR MONITORING AND EVALUATING TRAFFIC DATA, YOU PROBABLY ALREADY KNOW WHY UNDERSTANDING TRAFFIC ACQUISITION IS SO IMPORTANT. BUT LET'S DISCUSS SOME REASONS YOU WANT TO PAY CLOSE ATTENTION TO THIS REPORT IN GA4.

- **SEE WHERE USERS ARE COMING FROM:** THIS REPORT LETS YOU SEE PRECISELY WHERE USERS ARE COMING FROM. DID YOU LAUNCH A NEW CAMPAIGN ON FACEBOOK? WITH THE TRAFFIC ACQUISITION REPORT, YOU CAN SEE HOW WELL THIS IS PAYING OFF. ARE YOU MONITORING AN EMERGING TRAFFIC SOURCE TO SEE IF IT'S WORTH YOUR EFFORT? THE TRAFFIC REPORT CAN HELP THERE TOO. IN SHORT, YOUR TRAFFIC REPORT IS THE BEST WAY TO DETERMINE THE REAL ROI OF YOUR MARKETING AND TRAFFIC CAMPAIGNS.

WHY IS THE TRAFFIC ACQUISITION REPORT IMPORTANT?

- **ENSURE DIVERSITY:** THIS REPORT IS ALSO GREAT FOR ENSURING YOU HAVE DIVERSITY AMONG YOUR ENTRANCE SOURCES. IF THE BULK OF YOUR TRAFFIC IS ONLY COMING FROM ONE AREA, YOU CAN FOCUS YOUR EFFORTS ELSEWHERE.
- **IMPROVE YOUR CONTENT:** BY LOOKING TO SEE HOW MANY OF YOUR USERS ARE ARRIVING VIA ORGANIC SEARCH, YOU CAN SEE IF THERE ARE ISSUES WITH THE CONTENT ON YOUR LANDING PAGES. YOU MIGHT NEED TO IMPROVE YOUR USE OF KEYWORDS OR PRODUCE LONGER, MORE INFORMATIVE CONTENT TO GAIN MORE USERS THIS WAY.
- **IDENTIFY WEAK AREAS:** YOU CAN ALSO USE THIS REPORT TO IDENTIFY WHERE YOUR MARKETING EFFORTS ARE FAILING, LIKE WITH SOCIAL MEDIA OR A PAID ADS. USE THE COMPARISON FEATURE TO SEE WHERE YOU MIGHT WANT TO LAUNCH A RE-MARKETING CAMPAIGN.
- **EVALUATE TARGETED CAMPAIGNS:** THIS REPORT IS ALSO ESSENTIAL FOR UNDERSTANDING HOW WELL YOUR TARGETED MARKETING CAMPAIGNS ARE PERFORMING. FOR EXAMPLE, AS WE SHOWED IN THE PREVIOUS SECTION, IF YOU LAUNCHED A CAMPAIGN TARGETING A PARTICULAR AGE GROUP, YOU CAN USE THE TRAFFIC ACQUISITION REPORT TO SEE HOW WELL IT'S BRINGING THAT TARGETED AGE GROUP TO YOUR SITE.

ENGAGEMENT REPORTS IN GA4

THE ENGAGEMENT TOPIC LETS YOU MEASURE USER ENGAGEMENT BY THE EVENTS AND CONVERSION EVENTS THAT USERS TRIGGER AND THE WEB PAGES AND APP SCREENS THAT USERS VISIT. THE REPORTS CAN HELP YOU SEE THE PAGES AND SCREENS WITH THE MOST USER ENGAGEMENT, AS WELL AS UNDERSTAND USER BEHAVIOR THROUGH EVENTS.

WHAT IS AN ENGAGED SESSION?

AN ENGAGED SESSION IS DEFINED AS A SESSION THAT SPENT 10 SECONDS OR MORE ON THE SITE/APP OR VIEWED 2 OR MORE SCREENS/PAGES OR HAD A CONVERSION EVENT.

FOR EXAMPLE, IF A USER COMES TO THE SITE OR APP, SPENDS 10 SECONDS, AND THEN LEAVES WITHOUT TAKING ANY FURTHER ACTION THEN IN UNIVERSAL ANALYTICS, THE OLDER VERSION OF GOOGLE ANALYTICS, THIS USER SESSION IS CONSIDERED AS A BOUNCE. HOWEVER, IN THE CASE OF GA4, THIS USER SESSION IS CONSIDERED AN "ENGAGED SESSION" AND COUNTED TOWARDS ENGAGEMENT RATE.

ARE THERE OTHER ENGAGEMENT METRICS?

YES, IN ADDITION TO ENGAGEMENT RATE, YOU'LL BE ABLE TO SEE OTHER METRICS IN GA4 THAT ARE BASED ON ENGAGEMENT. THESE METRICS INCLUDE:

- ENGAGED SESSIONS: HOW MANY SESSIONS RESULTED IN ONE OR MORE OF THE CRITERIA MENTIONED ABOVE.
- ENGAGEMENT RATE: $\text{NUMBER OF ENGAGED SESSIONS} / \text{TOTAL NUMBER OF SESSIONS}$.
- ENGAGED SESSIONS PER USER: $\text{NUMBER OF ENGAGED SESSIONS} / \text{TOTAL USERS ON YOUR SITE AND MOBILE APPS}$.
- ENGAGEMENT TIME: THE SUM TOTAL OF ENGAGEMENT TIME ON YOUR WEBSITE AND MOBILE APPS.

WHAT ABOUT THE BOUNCE RATE?

MANY WHO WERE USED TO USING SOME CALCULATION OF BOUNCE RATE TO DEFINE ENGAGEMENT ARE NOW WONDERING WHERE THE BOUNCE RATE METRICS ARE IN GOOGLE ANALYTICS 4. GA4 NO LONGER REPORTS ON BOUNCE RATE METRICS.

BOUNCE RATE = ENGAGEMENT RATE

GA4 PROVIDE THE FOLLOWING ENGAGEMENT METRICS

- ENGAGEMENT RATE
- ENGAGED SESSIONS
 - ENGAGED ACTIVELY ON YOUR WEBSITE/MOBILE APP FOR MORE THAN 10 SECONDS
 - HAVE TWO OR MORE THAN TWO PAGE VIEWS
 - FIRE A CONVERSION EVENT
- ENGAGED SESSIONS PER USER
- AVERAGE ENGAGEMENT TIME

RETENTION REPORT IN GA4

THE RETENTION TOPIC HELPS YOU UNDERSTAND HOW FREQUENTLY AND FOR HOW LONG USERS ENGAGE WITH YOUR WEBSITE OR MOBILE APP AFTER THEIR FIRST VISIT. THE TOPIC ALSO HELPS YOU UNDERSTAND HOW VALUABLE USERS ARE BASED ON THE ADDITIONAL REVENUE YOU GENERATE AFTER THEIR FIRST VISIT.

A RETENTION REPORT RECORDS THE NUMBER OF CUSTOMERS WHO HAVE BOTH PURCHASED A PRODUCT OR SERVICE AND THEN REPURCHASED THAT ITEM OR RENEWED THEIR SUBSCRIPTION WITHIN A SPECIFIED TIME PERIOD.

NEW AND RETURNING USERS

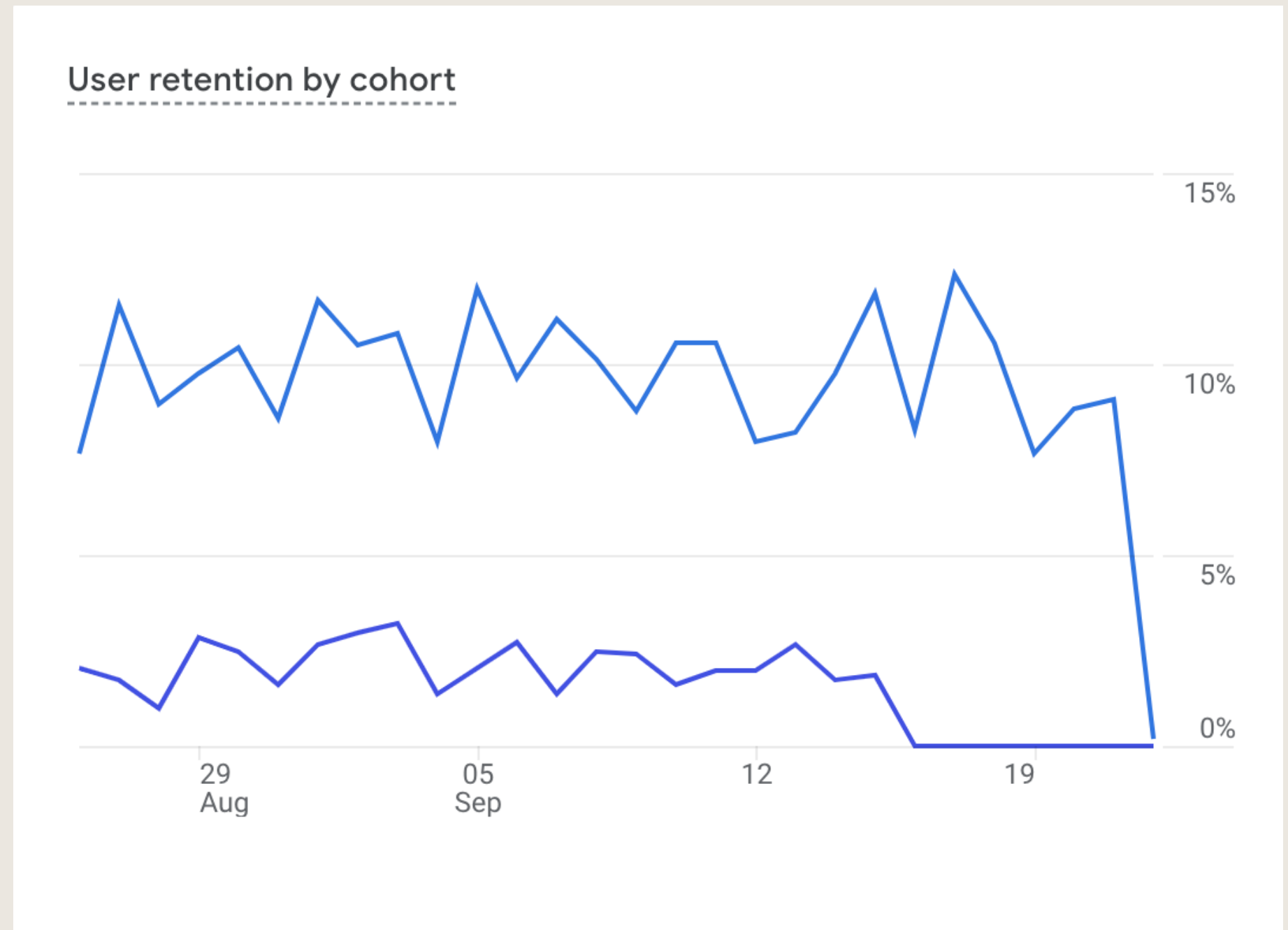
NEW USERS ARE USERS WHO VISIT YOUR SITE OR APP FOR THE FIRST TIME. ANALYTICS IDENTIFIES A NEW USER AS ANYONE WHO DOESN'T HAVE BOTH A GOOGLE ANALYTICS COOKIE AND CLIENT ID FROM YOUR SITE OR APP INSTANCE ID FROM YOUR APP. USERS WHO ALREADY HAVE THESE ARE RETURNING USERS.

COHORTS

A COHORT IS A GROUP OF USERS WHO SHARE A COMMON CHARACTERISTIC IDENTIFIED BY AN ANALYTICS DIMENSION. FOR EXAMPLE, ALL USERS WITH THE SAME ACQUISITION DATE BELONG TO THE SAME COHORT. IN THE RETENTION TOPIC, NEW USERS ARE PART OF THE SAME COHORT.

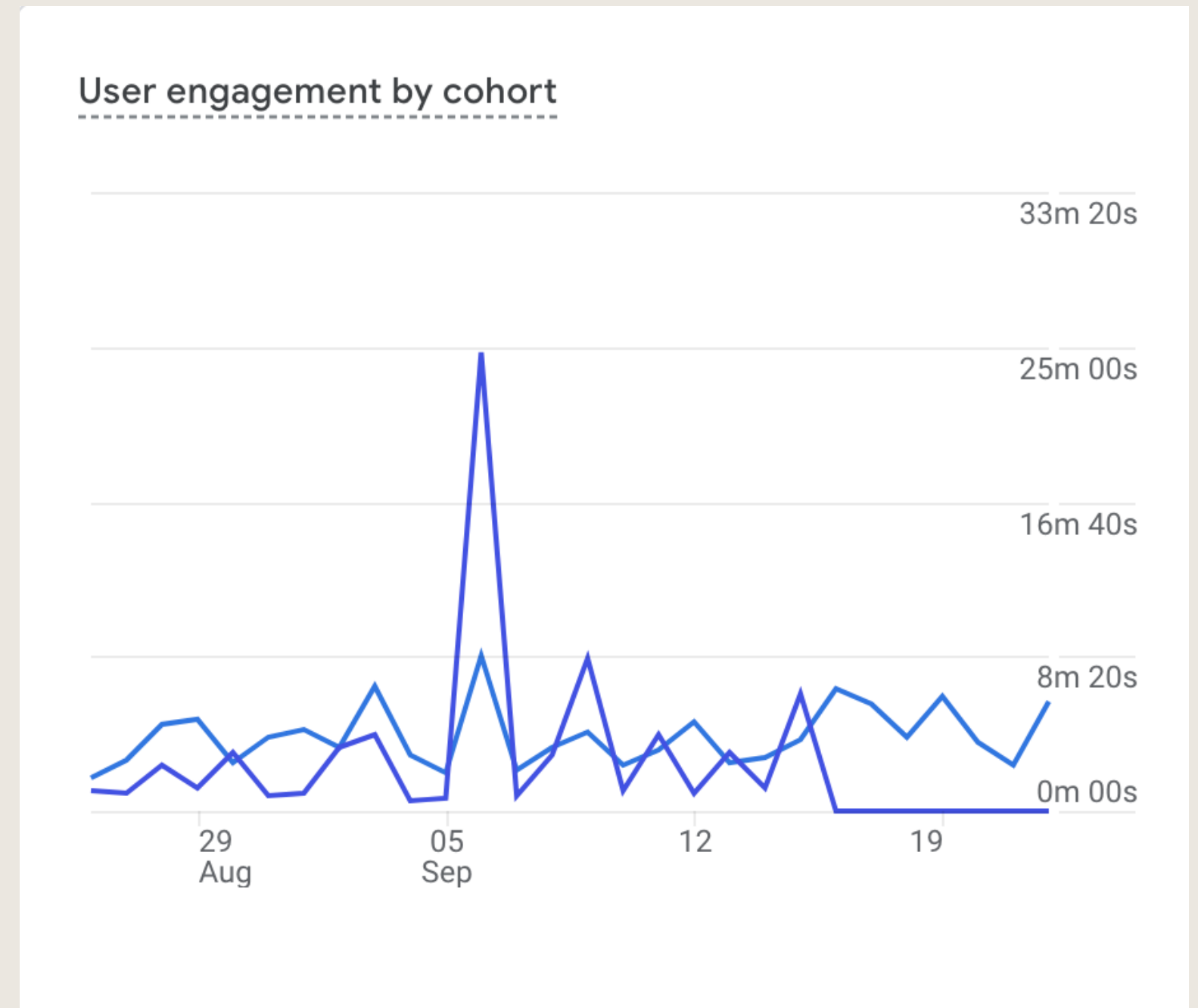
USER RETENTION BY COHORT

THE USER RETENTION BY COHORT CHART SHOWS THE PERCENTAGE OF NEW USERS WHO RETURN ON THEIR SECOND AND EIGHTH DAY. FOR EXAMPLE, 100 USERS VISIT YOUR SITE ON SEPTEMBER 9. TEN OF THE USERS RETURN ON SEPTEMBER 10 AND TWO RETURN ON SEPTEMBER 16. THE DAY 1 LINE SHOWS 10% ON SEPTEMBER 10, WHILE DAY 7 SHOWS 2% ON SEPTEMBER 16.



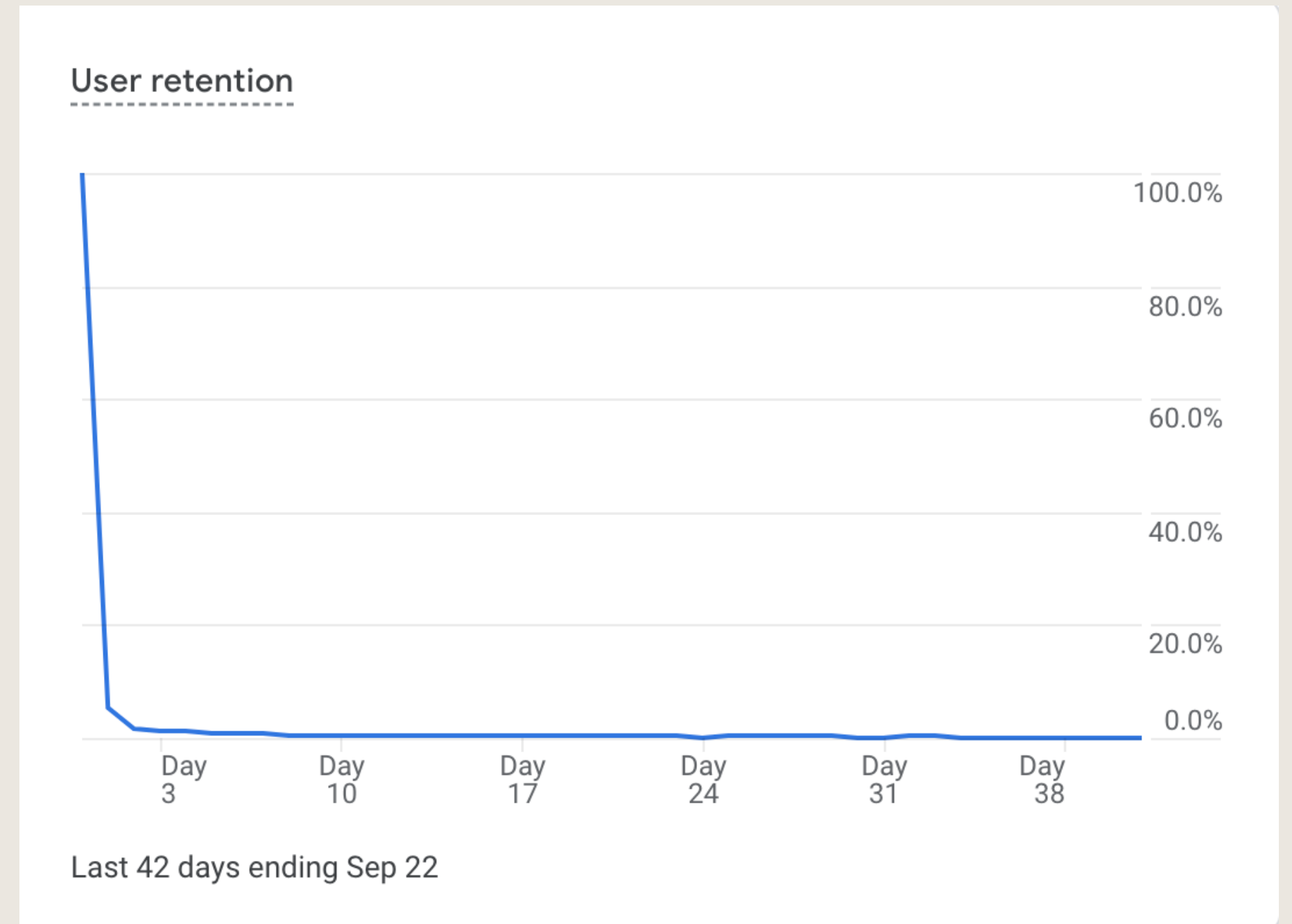
USER ENGAGEMENT BY COHORT

THE USER ENGAGEMENT BY COHORT CHART SHOWS THE AVERAGE ENGAGEMENT TIME OF NEW USERS WHO RETURN TO YOUR SITE OR APP ON THEIR SECOND AND EIGHTH DAY. ANALYTICS INCLUDES ONLY RETURNING USERS IN THE AVERAGE ENGAGEMENT TIME.



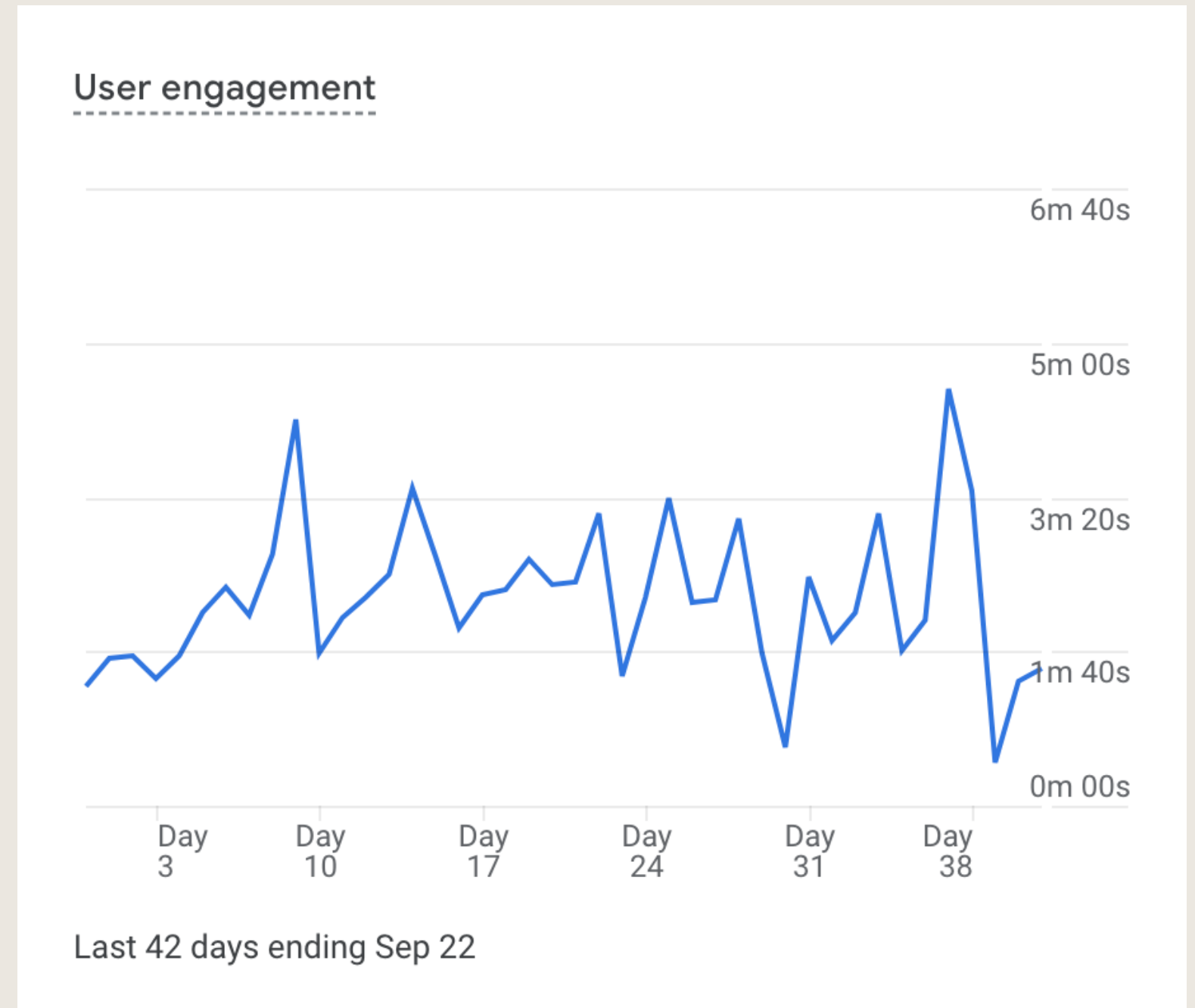
USER RETENTION

THIS CHART SHOWS THE PERCENTAGE OF USERS WHO RETURN EACH DAY IN THEIR FIRST 42 DAYS. THE CHART STARTS WITH 100% USER RETENTION WHEN ALL USERS VISIT FOR THE FIRST TIME. IT DECREASES FROM THE FIRST DAY AS USERS DROP OFF.



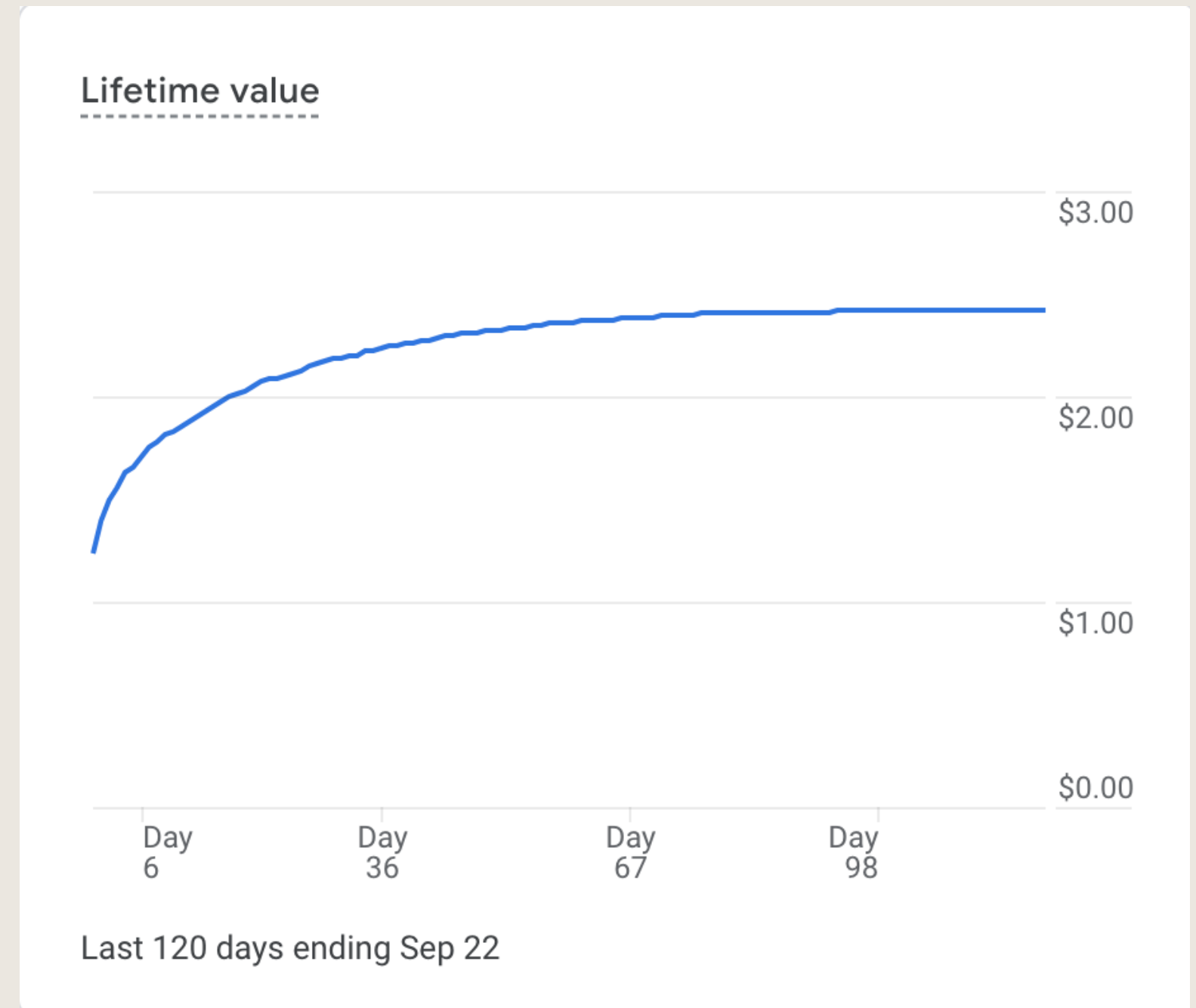
USER ENGAGEMENT

THE USER ENGAGEMENT CHART SHOWS THE AVERAGE ENGAGEMENT TIME OF USERS WHO RETURN IN THEIR FIRST 42 DAYS. ANALYTICS INCLUDES ONLY RETURNING USERS IN THE AVERAGE ENGAGEMENT TIME.



LIFETIME VALUE

THE LIFETIME VALUE CHART ILLUSTRATES THE AVERAGE REVENUE FROM NEW USERS OVER THEIR FIRST 120 DAYS. YOU CAN USE THE CHART TO DETERMINE HOW VALUABLE USERS ARE BASED ON THE ADDITIONAL REVENUE YOU GENERATE. FOR EXAMPLE, A USER PURCHASES A SHIRT AND THEN PURCHASES PANTS THE FOLLOWING WEEK. LIFETIME VALUE (LTV) INCLUDES BOTH PURCHASES, INDICATING THE OVERALL SUCCESS OF THE ACQUISITION.



EVENTS IN GA4

BEFORE GOOGLE ANALYTICS 4, EVENTS WERE DESIGNED TO TRACK ACTIONS WITHIN YOUR WEBSITE'S PAGES (OR IN YOUR APP). FOR EXAMPLE, IF YOU WANTED TO TRACK THE NUMBER OF TIMES PEOPLE DOWNLOADED A FILE FROM YOUR WEBSITE, YOU WOULD IMPLEMENT EVENT TRACKING AND USE THE EVENT REPORTS TO SEE THE NUMBER OF DOWNLOADS.

THE TWO MAIN ISSUES WITH THE PREVIOUS VERSION OF EVENT TRACKING WERE THE LIMITS ON THE AMOUNT OF INFORMATION YOU COULD COLLECT AND THE CONSTRAINTS AROUND REPORTING.

WHEN YOU IMPLEMENTED EVENT TRACKING WITH THE PREVIOUS VERSION OF GOOGLE ANALYTICS, YOU COULD NAME THE CATEGORY OF THE EVENT, NAME THE ACTION, INCLUDE AN OPTIONAL LABEL (TO CAPTURE ADDITIONAL INFORMATION), AND ASSIGN AN OPTIONAL VALUE (LIKE A DOLLAR VALUE).

EVENTS IN GA4

HERE'S AN EXAMPLE OF A UNIVERSAL ANALYTICS EVENT TO TRACK A VIDEO:

- EVENT CATEGORY: VIDEO
- EVENT ACTION: PLAY
- EVENT LABEL: [HTTPS://WWW.YOUTUBE.COM/XXXXXX](https://www.youtube.com/xxxxxx)
- EVENT VALUE: 0

IF YOU WANTED TO CAPTURE ADDITIONAL INFORMATION, YOU WOULD NEED TO EITHER REPLACE ONE OF THE EXISTING VALUES OR SQUEEZE THE EXTRA INFORMATION IN. FOR EXAMPLE, IF YOU WANTED TO USE EVENT TRACKING TO REPORT CLICKS ON DIFFERENT PROMOTIONAL BANNERS, YOU MIGHT DEFINE THE EVENT CATEGORY AS 'PROMOTION', THEN THE EVENT ACTION AS 'CLICK', AND THE EVENT LABEL AS 'SUMMER SPECIALS', LIKE WE CAN SEE HERE:

- EVENT CATEGORY: PROMOTION
- EVENT ACTION: CLICK
- EVENT LABEL: SUMMER SPECIALS
- EVENT VALUE:

HITS VS EVENTS

SO IN UNIVERSAL ANALYTICS, EVENTS WERE DESIGNED FOR TRACKING ACTIONS WITHIN A PAGE. IN CONTRAST, IN GOOGLE ANALYTICS 4, EVENTS ARE USED TO SEND ALL TYPES OF DATA TO YOUR REPORTS. THIS INCLUDES ACTIONS, DETAILS ABOUT YOUR USERS, AND OTHER INFORMATION ABOUT YOUR WEBSITE.

IF WE COMPARE THIS TO UNIVERSAL ANALYTICS, DATA WAS ALWAYS SENT AS A 'HIT'. AND THERE WERE PREDEFINED TYPES OF HITS YOU COULD SEND, WHICH MEANT THAT YOU WERE OUT OF LUCK IF YOU WANTED TO COLLECT CUSTOM INFORMATION THAT DIDN'T MATCH ONE OF THE PREDEFINED HIT TYPES. THE HIT TYPES IN UNIVERSAL ANALYTICS WERE:

- PAGEVIEW HIT
- EVENT HIT
- ECOMMERCE HIT
- SOCIAL INTERACTIONS HIT
- EXCEPTION HIT
- USER TIMING HIT
- SCREEN HIT (FOR APPS)

HITS ARE REPLACED BY EVENTS IN GOOGLE ANALYTICS 4, WHICH MEANS YOU CAN COLLECT DATA FOR ANYTHING YOU LIKE. YOU'RE NO LONGER RESTRICTED TO THESE PREDEFINED OPTIONS.

HITS VS EVENTS

WHAT CAN YOU TRACK WITH EVENTS IN GA4?

- PAGES PEOPLE LOAD ON YOUR WEBSITE
- ACTIONS PEOPLE PERFORM WITHIN A PAGE
- ELEMENTS PEOPLE HAVE CLICKED
- INFORMATION FROM THE URL OF THE PAGE
- TRANSACTION AND PRODUCT DETAILS
- ELEMENTS THAT ARE VISIBLE IN THE BROWSER
- DETAILS YOU'VE COLLECTED ABOUT A USER

TYPES OF EVENTS

- AUTOMATICALLY COLLECTED EVENTS
- ENHANCED MEASUREMENT EVENTS
- RECOMMENDED EVENTS
- CUSTOM EVENTS

[HTTPS://SUPPORT.GOOGLE.COM/ANALYTICS/ANSWER/9322688](https://support.google.com/analytics/answer/9322688)

AUTOMATICALLY COLLECTED EVENTS

WHEN YOU ADD THE GA4 TAG TO YOUR WEBSITE, IT WILL AUTOMATICALLY TRACK A NUMBER OF EVENTS WHEN SOMEONE VIEWS A PAGE. FOR EXAMPLE, GOOGLE ANALYTICS WILL AUTOMATICALLY TRACK AN EVENT WHEN SOMEONE SPENDS AT LEAST 10 SECONDS ON YOUR WEBSITE.

EVENTS TRACKED AUTOMATICALLY INCLUDE:

- THE `FIRST_VISIT` EVENT IS COLLECTED THE FIRST TIME SOMEONE VISITS YOUR WEBSITE. THIS EVENT IS ALSO USED TO CALCULATE THE 'NEW USERS' METRIC IN YOUR REPORTS.
- THE `PAGE_VIEW` EVENT IS USED TO REPORT ON THE PAGE THE USER IS VIEWING.
- THE `SESSION_START` EVENT IS USED TO DETERMINE WHEN THE USER'S SESSION STARTED. A NEW `SESSION_START` EVENT IS TRIGGERED WHEN THERE IS A PERIOD OF INACTIVITY OF 30 MINUTES.
- THE `USER_ENGAGEMENT` EVENT CAN BE COLLECTED PERIODICALLY AND IS USED TO REPORT WHEN SOMEONE HAS SPENT AT LEAST 10 SECONDS ON YOUR WEBSITE.

THESE AUTOMATIC EVENTS CAN'T BE SWITCHED OFF OR DISABLED. THEY ARE THE CRITICAL COMPONENTS NEEDED FOR GOOGLE ANALYTICS, SO YOU WILL FIND THEM IN ALL GOOGLE ANALYTICS 4 PROPERTIES.

ENHANCED MEASUREMENT EVENTS

PATH: ADMIN > DATASTREAM > CLICK ON THE DATA STREAM ENHANCED MEASUREMENT OPTION SETTINGS

APART FROM THE AUTOMATIC EVENTS WE JUST COVERED, YOU ALSO HAVE THE OPTION OF USING THE ENHANCED MEASUREMENT FEATURE TO COLLECT ADDITIONAL DATA AUTOMATICALLY. ENHANCED MEASUREMENT IS CONFIGURED FOR EACH DATA STREAM USED TO SEND DATA TO GOOGLE ANALYTICS.

THE BEST WAY TO THINK ABOUT ENHANCED MEASUREMENT IS THAT IT LETS YOU TRACK OPTIONAL AUTOMATIC EVENTS (WHILE THE AUTOMATIC EVENTS WE COVERED PREVIOUSLY ARE MANDATORY). SO WITH ENHANCED MEASUREMENT, YOU CAN CHOOSE TO TURN PARTICULAR AUTOMATIC EVENTS 'ON' OR 'OFF' DEPENDING ON WHAT YOU WOULD LIKE TO SEE IN YOUR REPORTS.

ENHANCED MEASUREMENT LETS YOU AUTOMATICALLY TRACK ONE OR MORE OF THE FOLLOWING ACTIONS

- SCROLLS FOR PEOPLE SCROLLING AT LEAST 90% OF A PAGE.
- OUTBOUND CLICKS FROM YOUR WEBSITE TO OTHER WEBSITES.
- SITE SEARCH FOR THE KEYWORDS ENTERED INTO YOUR WEBSITE'S SEARCH FUNCTION.
- VIDEO ENGAGEMENT OF PEOPLE WATCHING EMBEDDED YOUTUBE VIDEOS.
- FILES DOWNLOADS FOR PEOPLE DOWNLOADING FILES FROM YOUR WEBSITE.

THESE ACTIONS ARE TRACKED USING THE FOLLOWING EVENTS IN YOUR GOOGLE ANALYTICS REPORTS

- THE CLICK EVENT IS COLLECTED WHEN SOMEONE CLICKS ON AN OUTBOUND LINK.
- THE FILE_DOWNLOAD EVENT IS COLLECTED WHEN SOMEONE CLICKS TO DOWNLOAD A FILE FROM YOUR WEBSITE. EVENTS ARE TRIGGERED FOR POPULAR FILE FORMATS, INCLUDING THE FOLLOWING FILE EXTENSIONS: PDF, XLS, XLSX, DOC, DOCX, TXT, CSV, KEY, PPT, PKG, ZIP, MOV, MP4, MP3, WAV, AND MORE.
- THE SCROLL EVENT IS COLLECTED WHEN SOMEONE SCROLLS 90% OF A PAGE.
- THE VIDEO_START EVENT WHEN SOMEONE STARTS PLAYING AN EMBEDDED YOUTUBE VIDEO.
- THE VIDEO_PROGRESS EVENT WHEN 10%, 25%, 50%, AND 75% OF THE VIDEO'S DURATION IS PLAYED.
- THE VIDEO_COMPLETE EVENT WHEN THE VIDEO ENDS.
- THE VIEW_SEARCH_RESULTS EVENT WHEN PEOPLE VIEW A PAGE WITH A QUERY PARAMETER OF 'Q', 'S', 'SEARCH', 'QUERY', OR 'KEYWORD'.

DIMENSIONS AND METRICS IN GA4

METRICS AND DIMENSIONS IN GA4 ARE THE BUILDING BLOCKS OF EVERY REPORT AND ANALYSIS.

SIMPLY PUT, IT'S A PARAMETER/ATTRIBUTE OR CHARACTERISTIC OF DATA. IT MIGHT BE AN ATTRIBUTE OF A PRODUCT, EVENT, USER, WEBSITE, ETC. IT HELPS US BETTER DESCRIBE AND UNDERSTAND WHAT IS HAPPENING, WHERE IS IT HAPPENING, WHEN IS IT HAPPENING, ETC.

HERE IS A SIMPLIFIED OVERVIEW OF A STANDARD REPORT IN GA4:

Totals		66,681 100% of total	93,079 100% of total	56,987 100% of total	
1	Direct	United States	11,876	18,760	11,667
2	Organic Search	United States	8,630	13,427	9,380
3	Display	United States	5,036	6,585	2,384
4	Organic Search	India	3,623	4,574	2,959
5	Direct	India	2,617	3,102	2,017
6	Paid Search	United States	1,977	2,254	1,243
7	Organic Search	United Kingdom	1,541	2,362	1,552
8	Direct	Canada	1,508	1,901	941
9	Organic Search	China	1,333	1,373	855
10	Direct	China	1,183	1,198	573

DIMENSIONS AND METRICS IN GA4

THIS REPORT CONSISTS OF:

- TWO DIMENSIONS: SESSION DEFAULT CHANNEL GROUPING AND COUNTRY
- THREE METRICS: USERS, SESSIONS, AND ENGAGED SESSIONS

ON DEFAULT, GA4 SHOWS JUST ONE DIMENSION IN STANDARD REPORTS.

YOU CAN ADD AN ADDITIONAL / SECONDARY DIMENSION VIA THE “+” SIGN NEXT TO THE PRIMARY DIMENSION.

SO HOW CAN YOU DISTINGUISH BETWEEN METRICS AND DIMENSIONS IN GA4?

- A DIMENSION IS A CHARACTERISTIC OF AN OBJECT THAT CAN BE GIVEN DIFFERENT VALUES → A DIMENSION DESCRIBES DATA
- A METRIC IS AN INDIVIDUAL ELEMENT OF A DIMENSION WHICH CAN BE MEASURED AS A SUM OR RATIO → A METRIC MEASURES DATA

DIMENSIONS AND METRICS IN GA4

HERE ARE SOME EXAMPLES OF DIMENSIONS

- A TRANSACTION OCCURS ON A WEBSITE. ITS DIMENSIONS CAN BE (BUT NOT LIMITED TO):
 - TRANSACTION ID
 - COUPON CODE
 - LATEST TRAFFIC SOURCE, ETC.
- A USER LOGS IN TO A WEBSITE AND WE SEND THE EVENT LOGIN TO GOOGLE ANALYTICS. THAT EVENT'S CUSTOM DIMENSIONS MIGHT BE:
 - LOGIN METHOD
 - USER ID, ETC.
- A PRODUCT IS PURCHASED. ITS DIMENSIONS CAN BE:
 - PRODUCT NAME
 - PRODUCT CATEGORY
 - PRODUCT VARIANT
 - PRODUCT SIZE, ETC.
- A LOGGED-IN USER OPENS HIS/HER ACCOUNT. DIMENSIONS OF A USER CAN BE:
 - USER ID
 - REGISTRATION COUNTRY
 - PRICING PLAN, ETC.

EXCLUDE IP & INTERNAL TRAFFIC IN GA4

FILTERING INTERNAL TRAFFIC ALLOWS YOU TO HAVE MORE ACCURATE DATA ON THE PERFORMANCE OF YOUR WEBSITE. AS YOU AND YOUR TEAM ACCESS YOUR WEBSITE FOR A VARIETY OF REASONS, GOOGLE ANALYTICS REGISTERS THIS AS EXTERNAL VISITORS, INCREASING NOT ONLY THE TOTAL AMOUNT OF TRAFFIC BUT OTHER KPIS LIKE THE TOP PAGES VIEWED.

WHAT IS INTERNAL TRAFFIC?

INTERNAL TRAFFIC IS CONSIDERED THE TRAFFIC GENERATED TO YOUR WEBSITE BY YOURSELF OR YOUR TEAM. IN BASIC TERMS, INTERNAL TRAFFIC IS USERS WHO ACCESS YOUR WEBSITE THAT IS NOT CONSIDERED TO BE PART OF YOUR TARGET AUDIENCE.

WHY EXCLUDE IT FROM YOUR WEB TRAFFIC?

INTERNAL TRAFFIC CAN CAUSE SOME ISSUES ON YOUR GOOGLE ANALYTICS REPORTS. MAINLY BECAUSE PEOPLE WHO WORK IN YOUR BUSINESS OR WITH YOU IN REGARDS TO THE WEBSITE WON'T ACT LIKE NORMAL USERS.

YOU AND YOUR TEAM MAY ACCESS YOUR WEBSITE FOR A VARIETY OF REASONS, FROM LOOKING UP A LINK TO A BLOG POST, OR MAKING SURE CERTAIN PAGES ARE WORKING CORRECTLY, THIS WILL CAUSE SESSIONS TO BE REGISTERED ON YOUR GOOGLE ANALYTICS ACCOUNT, IMPACTING ESSENTIAL METRICS LIKE ENGAGEMENT RATE, PAGE VIEWS, USERS AND SO FORTH.

EXCLUDE IP & INTERNAL TRAFFIC IN GA4

HERE ARE A FEW WAYS HOW INTERNAL TRAFFIC CAN AFFECT YOUR DATA:

- DON'T USE THE SAME TRAFFIC SOURCES AS YOUR AUDIENCE. THEY'LL MOST LIKELY INCREASE THE DIRECT TRAFFIC BECAUSE THEY WOULD ACCESS DIRECTLY FROM YOUR DOMAIN
- INCREASES TRAFFIC TO NEW PAGES EVEN BEFORE USERS KNOW ABOUT IT. ALSO, CAN INCREASE TRAFFIC TO BLOG POSTS THAT MAYBE WOULDN'T HAVE BEEN SO POPULAR.
- MORE SITE SEARCHES WOULD BE DONE. IT'S MORE LIKELY THAT YOU WOULD SEARCH A TOPIC ON YOUR SITE SEARCH THAN A NORMAL USER.
- INTERNAL TRAFFIC WILL SPEND LONGER ON A PAGE AND WILL RETURN. IF THERE ARE PROBLEMS LIKE LOADING SPEED OR A VIDEO LINK IS BROKEN, YOUR TEAM WILL ACCESS THE PAGE UNTIL IT'S FIXED.

HOW TO EXCLUDE INTERNAL TRAFFIC FROM YOUR GA 4 ACCOUNT

- NAVIGATE TO DATA STREAMS IN THE ADMIN SECTION AND SELECT THE DATA STREAM YOU WANT TO FILTER.
- IN THE BOTTOM OF THE PAGE, SELECT TAGGING SETTINGS.
- SELECT DEFINE INTERNAL TRAFFIC AND CLICK THE CREATE BUTTON ON THE FOLLOWING PAGE.
- SET UP THE FILTER AS YOU ARE USED TO FROM UNIVERSAL ANALYTICS WITH A DESCRIPTIVE NAME AND THE IP YOU WANT TO DEFINE AS INTERNAL TRAFFIC. EVEN THOUGH IP ANONYMIZATION IS ALWAYS ENABLED IN GA4 YOU WILL STILL NEED TO PROVIDE THE FULL IP ADDRESS HERE. A GREAT IMPROVEMENT OVER UNIVERSAL ANALYTICS.
- IN UNIVERSAL ANALYTICS YOU WOULD BE DONE NOW, BUT IN GA4 THIS FILTER WILL ONLY CREATE A NEW EVENT PARAMETER CALLED TRAFFIC_TYPE WHICH CAN BE SEEN IN THE BIGQUERY EXPORT.

HOW TO EXCLUDE INTERNAL TRAFFIC FROM YOUR GA 4 ACCOUNT

- NOW, IF YOU ACTUALLY WANT TO REMOVE THE DATA FROM YOUR INTERNAL IP FROM THE DATASET YOU NEED TO SET UP A DATA FILTER, WHICH CAN BE FOUND UNDER DATA SETTINGS IN THE PROPERTY SETTINGS.
- BY DEFAULT, AN INTERNAL DATA FILTER IS CREATED IN A TESTING STATE.
- BY OPENING THE DATA FILTER, YOU WILL REVEAL THE NEW OPTIONS YOU HAVE FOR FILTERING YOUR DATA, BASED ON THE TRAFFIC_TYPE EVENT PARAMETER.
- YOU CAN CHOOSE TO “EXCLUDE” OR “INCLUDE ONLY” THE DATA, WHICH IS FAIRLY FAMILIAR, BUT THEN YOU CAN ALSO SET THE FILTER STATE. HERE THERE IS A NEW OPTION TO TEST THE FILTER, BY NOT ACTUALLY REMOVING THE DATA, BUT ONLY ADDING A NEW DIMENSION TO THE DATA.
- THIS IS A GREAT IMPROVEMENT OVER UNIVERSAL ANALYTICS, WHICH LET’S YOU ANALYZE THE DATA YOU ARE ABOUT TO EXCLUDE IN THE REPORTS, SO YOU CAN VALIDATE THE FILTER BEFORE IT IS ACTIVATED.

THANK YOU!

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