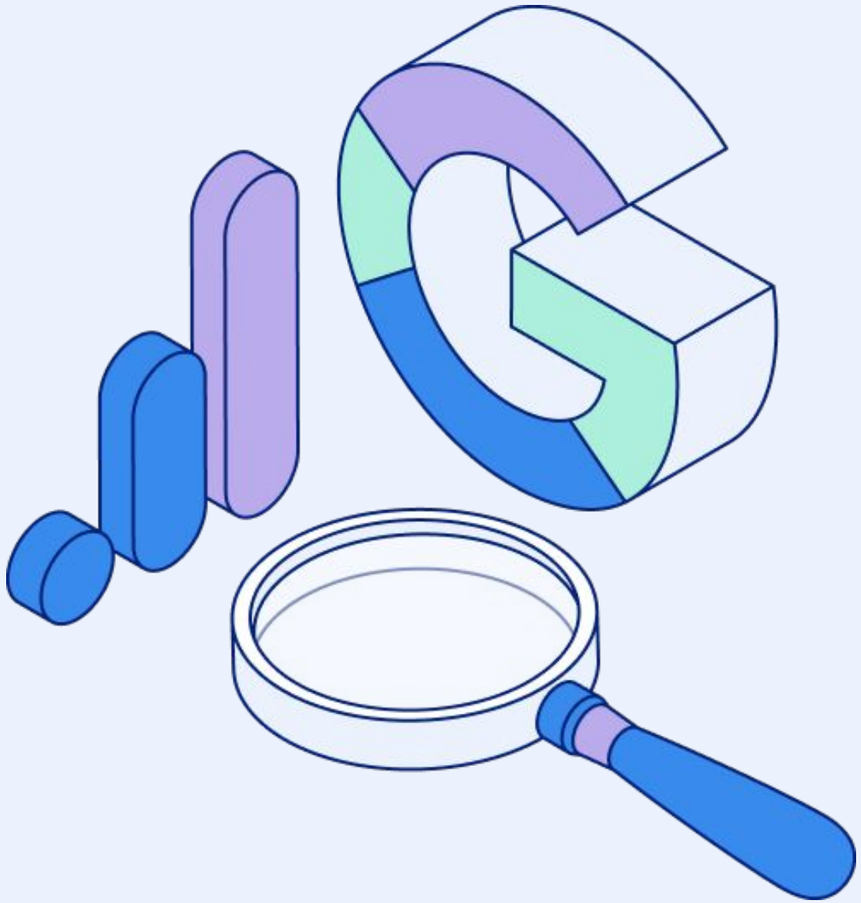
CallRail

A beginner’s guide to Google Analytics 4

for small and midsize businesses



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Whether your business is currently using Google Analytics or has yet to dive into the world of web analytics, now is the time to learn how to switch (or start) measuring your marketing campaigns using this powerful tool. On July 1, 2023, Google will move everyone to its latest version, Google Analytics 4 (GA4), and retire Google Analytics 3 (also known as Universal Analytics or UA).

Here's everything you need to know about Google Analytics 4 including key changes from UA, what it will mean for the way you measure marketing activity and conversions, and how to get started using GA4.

What is Google Analytics 4?

Google Analytics 4 is a new way to track and measure online activity. While it is similar to Google's current Universal Analytics offering, GA4 has been updated to reflect many of the changes in consumer behavior and privacy regulations.

So what's the big difference?

GA4 changes the way data is collected and analyzed to better reflect the fact that consumers use mobile apps in their customer journeys—not just web browsers—and that consumers are more concerned about how their data is being collected and used. Here's what that means for you:

1. **GA4 trades sessions for events**
   Google's new analytics tool moves away from UA's session-based data collection (a group of user interactions with your website that take place within a given time frame) to a simpler events-based approach (everything measurable is an event now) to bring web and app based reporting into one tool (hooray!). While this may not sound like a big deal, it is intended to make it easier to understand your customer's experience with your web and app properties.

2. **New data means new metrics**
   With its new data structure, GA4 captures and presents insights differently than UA. That means you'll need to understand what data is automatically collected, how your reports will change, and what, if any, insights are missing out of the box.

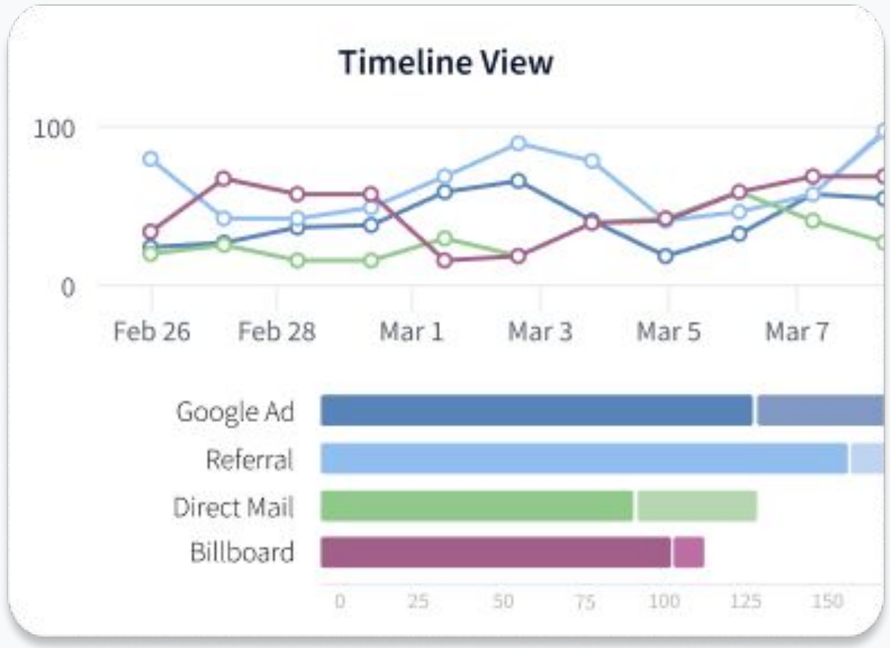
3. **Greater data control without privacy intrusions**
   Consumers are rightfully concerned about data privacy and, in particular, cookie tracking (we will talk more about this later). GA4 is better about aligning to modern data privacy practices, exposing your business to less risk, while giving you plenty of new ways to get deeper insights.

Getting started

GA4 is currently available to use. If you're setting up a new web property in Google Analytics, you'll start on GA4. If you're one of many businesses who already rely on Universal Analytics, you can—and should—use them together. Starting now with GA4 ensures you have historical data for monitoring trends right away. But keep using UA to ensure you're getting the insights you need now and can continue using key third-party integrations.

Since GA4 is a new product, companies that integrate with Google Analytics also have to update their integrations before July 2023. Be sure to do an inventory of your third-party UA integrations to see what vendors will be ready to go when GA4 takes over.

Don't worry, CallRail is currently revamping our Google Analytics integration, so you can continue to report on and analyze call data in Google Analytics and provide more insight into visitor interactions than ever before.



What are cookies – and what do they have to do with GA4?

Cookies are little snippets of code that get stored in your browser to help it remember where you've been and what you've done on a site. Cookies share that information back to the site, allowing for more convenient, personalized experiences for consumers and giving marketers a way to track engagement.

First-party cookies are cookies that come from your domain and are often essential to the user experience on the site. First-party cookies make using websites easier for consumers by:

- Saving a person's user ID to speed up logins
- Keeping items in a person's cart between visits
- Helping with product and content recommendations based on past interactions

Third-party cookies are unique because they allow the sites to track users beyond the property. A third-party cookie, often from an AdTech vendor, gives marketers and advertisers access to more information about consumer demographics, behavior, and preferences than they would normally gather on their domain. But the practice of using third-party cookies has come under scrutiny from regulators and privacy-conscious consumers.

How does GA4 use cookies?

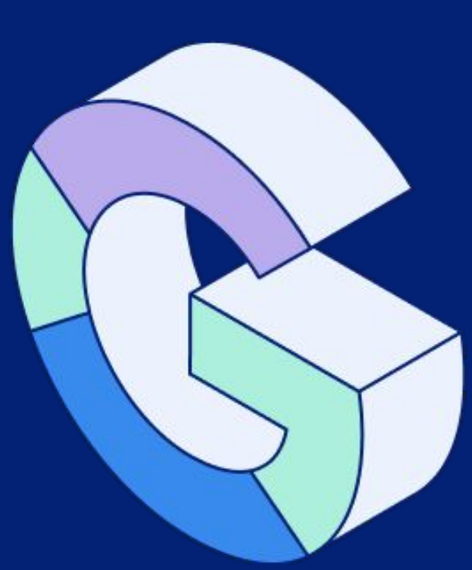
In addition to being helpful for consumers, cookies are small snippets of code websites store on a user's computer that help improve the browsing experience—remembering user IDs, keeping items in your cart between visits, etc. They also give you data about the user's behavior and demographics, which GA4 captures to help you measure your marketing performance. So it might seem jarring to think GA4 is messing with cookies at all.

The short version is that Google Analytics relies on first-party cookies, but restricts third-party cookies that cause so many privacy concerns for consumers. GA4 makes up for some of that data loss by adding in signals to the mix, which is session data from sites and apps that Google associates with users who have signed into their Google accounts, and turned on Ads Personalization.

Privacy concerns around third-party cookies are just one reason driving Google's move to GA4. As consumers rely more on mobile browsers and apps (90% of mobile time was spent using apps in 2021), it became clear that analytics based solely on web behavior couldn't capture the customer journey effectively.

What does that mean for you?

You'll need to rethink the way you measure the customer experience and marketing successes for this new reality. As you move to GA4, you should take the opportunity to reevaluate your key metrics to better align with how consumers interact with your brand.



Google Analytics 4 vs Universal Analytics

Should I use Universal Analytics or GA4?

For now, you have a choice between GA4 and UA. If you're setting up a new Google Analytics property, it will default to GA4, but you can choose to only use UA through some advanced options during setup.

We recommend using both for now for several reasons.

1. **GA4 is still constantly being improved**
   Despite being out of its beta, features are still being added. Moving over now may provide a false sense of what life with GA4 will really be like. Marketers should rely on UA for now to capture key insights, while monitoring performance and exploring the new capabilities of GA4 at the same time. Give yourself as much time to adjust as possible.

2. **The UA metrics you're used to won't align 1:1 with GA4 metrics**
   By having both, GA4 and UA, you can see how your key measurements will be affected by the change and alter your reporting accordingly. For example, UA reported the Bounce Rate—leaving a site after one page view—to flag bad content or User experience (UX). But a single page view that leads to a conversion is a success that UA couldn't capture. GA4 focuses on Engagement Rate to capture positive experiences.

3. **Retain key third-party integrations**
   By waiting to move away from UA, you'll retain your key integrations with Google Analytics, such as CallRail's Google Analytics integration. These integrations help you make the most of Google Analytics' data. Try to avoid upgrading to GA4 early if your key integrations aren't ready.

Below is a chart of some other key differences in how the two prioritize different views of similar data points—just be sure to review all the metrics changing from UA to GA4.

Metric	UA	GA4	Impact
Users	**Total Users** is the Primary user metric in UA	**Active Users** is the Primary metric in GA4, measuring *engaged* user interaction across web and app	Though **Total Users** is measured in both, **Active Users** is more useful to understand engagement. Numbers might differ due to filters in UA that aren't in GA4.
Pageviews	Total number of pages viewed. Repeated views of a single page are counted.	aka *Views*: Total number of app screens and/or web pages your users saw. (The *Views* metric found in the reporting interface is the combination of pageviews and screenviews.) Repeated views of a single screen or page are counted.	App traffic might boost numbers in GA4 compared to UA.
Conversions	A ***goal*** is a particular user action you considered a conversion. UA counts **only one** conversion per session for each goal, meaning some goals might be missed in a multi-conversion session.	A ***conversion event*** is each action that you want to count as a conversion. GA4 counts **every instance** of the conversion event, even if the same conversion event is recorded multiple times during the same session.	Some UA goal types might not map directly to GA4 conversion events. You might find more conversions captured in GA4 due to UA's session limits on conversions.

What do I gain, and lose, by upgrading?

With a big change like Google Analytics 4, there are going to be some things that feel like improvements and some things that feel like downgrades. Time will tell what the changes will mean for your small business, but we know the effects of some already.

Here's what you'll gain with Google Analytics 4:

- **Event-based tracking:** Event-based tracking—which focuses on user actions, not sessions—brings together web and app engagement for a more holistic view of the user, with the potential for richer journey insights.
- **Better reporting and analysis:** GA4 provides simple-to-use templates for custom reporting.
- **Automated insights:** Artificial intelligence and machine learning will highlight new insights for you.

Here's what you'll lose when you switch:

- **Historical data:** Your historical data in UA (as well as your tags) won't migrate over to GA4. Since GA4 requires a new property, you'll essentially be starting from scratch.
- **Your conversions:** Since the underlying measurements have changed, your conversions will be different now too.
- **Views**: As of now, GA4 doesn't provide views, or ways to filter out certain types of data. Marketers often used views to filter out employee traffic, for example. It's unclear whether this functionality will return.
- **Limits on filters and customer dimensions:** IP and hostname filtering have been limited or deprecated, and custom dimensions are limited to 50.
- **Third-party integrations:** Third-party integrations into GA for everything from your CRMs, to your eCommerce, to your Content Management System (CMS) that were built on UA's measurements, will no longer work until they're updated to GA4.

If you were to upgrade today, you would lose CallRail's GA integration—for now. If you're using CallRail as a source of truth for customer interactions or tracking calls as a conversion in GA, you'll no longer be able to track calls to your business as an event—until our new GA4-ready integration is released.

Don't worry, though. Since there's no reason to give up UA yet, you can still enjoy the call tracking data you're used to by maintaining UA with the CallRail Google Analytics integration. CallRail is currently upgrading our Google Analytics integration to function with GA4, and it will be completed prior to the July 2023 sunset date of Universal Analytics.

Audit your third party tools to ensure they're ready for GA4

It may have been a while since you investigated what tools are feeding into, or taking data from, your Google Analytics. The odds are you have several important data feeds going in and out of Google Analytics.

Common integrations include:

- Customer Record Management solutions (CRMs) like Salesforce
- Call tracking solutions like CallRail
- eCommerce platforms like Shopify
- Social media sites like Facebook
- CMS platforms like WordPress

While you have access to both UA and GA4, take the time to audit your third-party tools. See whether they will work with GA4 and how those integrations might change. Keeping on top of your third-party tools alongside your switch to GA4 will ensure there are no surprise data losses when UA is shut down in July 2023.

How to upgrade from UA to GA4

Luckily, it's simple to add a GA4 property to a site that already has Universal Analytics with just a few clicks. You can see the detailed walkthrough in this Google Analytics support article.

1. **Login to your Google Analytics account** with an Editor role.
2. **Navigate to the Admin page** and choose the desired Account.
3. **Select the Universal Analytics property** in the next column to which you wish to add GA4.
4. Click the **“GA4 Setup Assistant.”**
5. Select **“I want to create a new Google Analytics 4 property”** and either add a tag or enable the use of your existing tags.
6. Click **“Create Property”.**
7. **Configure your GA4 property** according to your UA property using the setup wizard.
8. **Ensure your new gtag.js tag is on your page**, or check your data in 30 minutes to see that your existing tags are passing data through.
9. **Find your new GA4 on-page tag** from Admin→Property, then click Data Streams→Web and under “Tagging Instructions” click Add new on-page tag > Global Site Tag (gtag.js).

How to set up a new GA4 property

If you're starting from scratch with a new Google Analytics account or just want to focus on GA4, you can set up a new account.

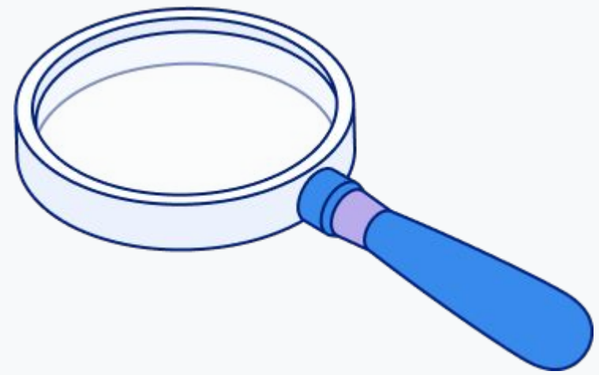
How to create a GA4 account

The first step to setting up GA4 is to create an Analytics account. Setting up an Analytics account requires you to name your property, select what data you'll share with Google, set up your first property, and share information about your business.

Once you've set up these basics, you'll choose from three data streams to begin measuring:

- iOS app
- Android app
- Web

Don't forget to also add your Analytics tag to your website so GA4 can see your user activity there.



How to set up GA4 in Google Tag Manager (GTM)

Google Tag Manager is Google's free tag solution that simplifies data collection by setting a cookie that reduces the amount of code you need to put on your site to a small, repeatable snippet. It doesn't provide analytics, but it works in tandem with Google Analytics to help you set the rules on when and what user data to collect.

If you use Google Tag Manager, you'll need to set up GA4 Configuration (which initializes GA4 in GTM on a particular page) and the GA4 Event tag (which lets you send custom events to Analytics). You don't have to erase your UA tags for GA4 tags to work.

To get started, you can see the detailed setup process here, but in general adding these tags is simple:

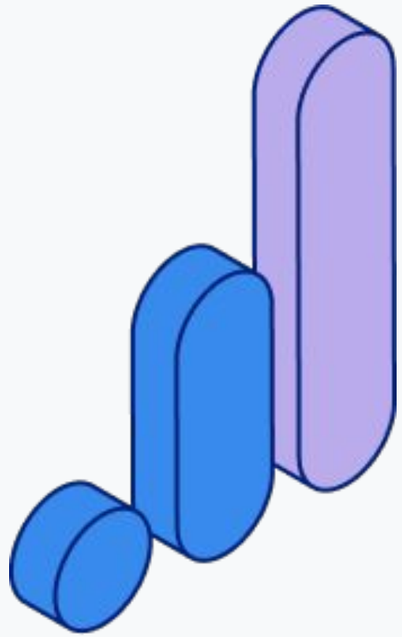
1. Log into GTM
2. Click Tags > New
3. Click Tag Configuration
4. Select GA4 Configuration or GA4 events, if you've already done the Configuration tag.
5. For the Configuration tag, enter your measurement ID, decide what optional parameters or customizations to enable, click Triggering and select the events that would cause the tag to fire (i.e. send the data to GA4).
6. For the Event tags, choose the event name, configure optional event parameters and customizations, click Triggering and select the events that would cause the tag to fire (i.e. send the data to GA4).
7. Save the tag configurations and publish

How to add GA4 to your website

Adding GA4 to your website is an important step. Certain CMS platforms like Google Sites, Wix, WooCommerce, and Wordpress.com, make it very easy. Simply copy and paste your “G-” ID that’s provided by your CMS into the Web Data Stream for your GA4 property.

All other CMS or website builders require you to paste the entire global site tag into your website using the HTML editor feature. Make sure you ace this setup by reading more about it in this support article under “Set up data collection (for websites)”.

If you’re using UA and GA4 together, make sure you include the global site tags for both—don’t delete the UA global site tag until you’re ready to stop using it.



How to create & track custom events in GA4

GA4 automatically tracks many common events, such as loading a page, clicking a link, or completing a purchase. If you need other data points, custom events can be created. Keep in mind, there is a limit to the number of custom events you can set up in GA4. Before setting up a custom event or parameter, be sure the data you're looking for isn't already one of the automatically captured events or parameters.

Creating an Event in GA4

1. In the left pane, click **Configure and select Events**.
2. Click **Create event**.
3. Select **a data stream**.
4. Click **Create**.
5. **For Custom event name**, enter a valid name for the new event.
6. In the **Matching conditions Value field**, enter the name of the existing event that this event will be based on.
7. Click **Add condition** to specify what will trigger the new event.
8. Select the **Copy parameters** from the source event checkbox to use the same parameters as the original event.
9. **Specify any changes** you want to make to the parameter values.

What are GA4 event parameters?

Event parameters provide color to events that would otherwise all seem the same, since GA4's events don't provide the same URL-level specificity that UA's sessions and pageviews tracking did. In other words, without defining parameters and creating a filtered view, GA4 will simply tell you how many overall page views your site received, whereas you could navigate to specific URLs in UA to get data for that page.

Event parameters can be used to track user properties such as age, country, gender, language, device category, etc. Or they can be used to define custom parameters based on text or numbers, such as product prices, descriptions, etc.

To maximize the availability of demographic and cross-platform data availability in GA4—which, as you recall, no longer allows third-party cookies—you will need to enable Google signals. Signals allow you to collect more data from users who opted into Google Ads personalization, making it easier for you to remarket via audience demographics and interests.

Learn more about Google signals and how to enable them for your GA4 property here.

How to set up event parameters

Certain event parameters are automatically tracked in GA4 with every event, including language, page_location, page_referrer, page_title, and screen_resolution. If you want to add more parameters to describe a particular event and help you track your conversions more accurately, you can use the GA4 interface or GTM.

Setting an event parameter in GA4

When you have the event you wish to modify the parameters for, you can select the Parameter field and enter a new value to distinguish the event. For example, modifying the page_view parameter with the value of “Homepage” will help you track the views on the homepage. Previously in UA, you would have simply navigated to the homepage URL for the page view data without setting a parameter. For small businesses, the change can help you be more intentional about what data is being tracked.

Similarly, you can create custom events based on matching events and parameters. For example, to track an event for large purchases, you can combine two parameters, event_name and value, with parameters that indicate a purchase over a certain numeric value.

Setting an event parameter in Google Tag Manager

When you modify an event with a custom parameter in Google Tag Manager (GTM) instead of GA4, it is important to register that parameter's definition, otherwise GA4 won’t know what the parameter means and it may not populate in your various reports. Navigate from Configure to Custom Definitions. Once you click the Create Custom Dimensions button, you need to enter:

- The name of the parameter
- The scope of the events it applies to
- The event parameter, which should match exactly what’s in GTM

Conversion tracking in GA4

Conversions in GA4 vs Goals in UA

Conversion tracking in Google Analytics 4 is going to be different from UA due to differences in the underlying event data tracking methods. To track your conversions properly in GA4, first understand the differences between GA4 and UA in definitions for commonly measured actions or behaviors used to create conversions. Check out a comparison from Google here.

Other key differences between GA4 and UA conversion tracking include:

- UA supported five goal types: destination, duration, pages/session, smart goals, and event goals. GA4 only has conversion events. Thus, there may not always be a 1:1 equivalent.
- UA counted one conversion per session, where GA4 can count multiple conversions of the same event per session.

Setting up events as conversions

Google Analytics captures a ton of event data; conversions help you find a signal in the noise by highlighting events that are valuable to your business. Any event in GA4 can be set as a conversion. Thus, your conversions will be event_name, with the parameter modifying the event.

If, for example, you set an event for any time the phone number is used on your site as click_to_call, you could mark that event as a conversion. Furthermore, you can limit the conversions collection based on the parameters—i.e., you can create conversions based on certain conditions being met, instead of every time the event is triggered. This gives you so much more nuance over your marketing metrics than before.

GA4 automatically marks the following as conversions:

purchase **(web and app)**
first_open **(app only)**
in_app_purchase **(app only)**
app_store_subscription_convert **(app only)**
app_store_subscriptions_renew **(app only)**

To manually mark any event, including a custom event, as a conversion, you can configure it in two ways.

1. Track an existing event as a conversion.
    a. In the left navigation, click Configure > Events.
    b. Locate the event in the Existing events table.
    c. In the event's Mark as conversion column, click to turn the switch on.

2. Create a new conversion event from the event name.
    a. In the left navigation, select Configure > Conversions.
    b. Click New Conversion Event.
    c. Enter the name of the new event. Be sure to use the exact event name with proper capitalization.
    d. Click Save.

If you have goals in UA that you'd like to continue tracking in GA4, you can use Google's guides to convert your goals and ecommerce goals into tracked events.

Learn how to replicate Universal Analytics goals in GA4 properties.
Learn how to replicate ecommerce conversions in GA4 properties.

How to use event parameters as part of tracked conversions

Event parameters allow you to bring a level of customization to your custom events that GA4 automatically captures. You can capture up to 25 custom parameters in a single event.

Use your event parameters to modify events and ensure you're tracking exactly what actions you deem a conversion. For example, a completed form fill can be an event, but by using event parameters you can limit which form fill events count as a conversion based on certain criteria you set.

Customizing events, event parameters, and conversions might take more effort in GA4, but in return you'll have much more accurate and usable data to help analyze your marketing performance and to accurately attribute marketing activities to your key marketing goals.

Use custom dashboards to track all your custom events

One of GA4's big improvements is in its built-in data reporting and visualization. Be sure to take advantage of it and potentially save yourself the time and hassle of using other platforms like Google Data Studio or Tableau.

To see your custom events metrics in GA4, you can create custom dashboards with up to 12 widgets per dashboard that will show you data in different formats, including:

- **Metric:** Displays a simple numeric representation of a single selected metric.
- **Timeline:** Displays a graph of the selected metric over time. You can compare this to a secondary metric.
- **Geomap:** Displays a map of the selected region, with the specified metric plotted on the map. Hover over the map to see the actual metric values.
- **Table:** Displays up to 2 metrics describing the selected dimension, laid out in tabular format.
- **Pie:** Displays a pie chart of the selected metric grouped by a dimension. Mouse over a slice to see the specific metric values.
- **Bar:** Displays a bar chart of the selected metric grouped by up to 2 dimensions. Mouse over a bar to see the specific metric values.

To set up a customer dashboard in Google Analytics:

1. **Navigate** to your view.
2. Open **Reports.**
3. Click **CUSTOMIZATION > Dashboards.**
4. Click **Create.**
5. In the Create Dashboard dialog, select either **Blank Canvas** (no widgets) or **Starter Dashboard** (default set of widgets).
6. Give your Dashboard a descriptive title, then click **Create Dashboard.**

Learn more about custom dashboards here.

Stay tuned for what's next from CallRail

We're hard at work making the next interaction of our Google Analytics integration better than before. See what CallRail's Call Tracking can do to enrich your understanding of the customer journey when combined with your web visitor data in Google Analytics.

Get started with a free trial today.