

SOP: GTM Server Side - Implementation Guide

Purpose

Goal: To track conversions from various advertising and analytics platforms using Google Tag Manager (GTM) server-side.

Ideal Outcome: You can consolidate and manage all your conversion tracking within GTM server-side, gaining a centralized view of conversion data from multiple platforms.

Prerequisites or Requirements: GTM server-side needs to be set up and configured for your website. You should have accounts on the advertising and analytics platforms you want to track conversions from.

Why this is important: Having a centralized conversion tracking system simplifies management and provides a comprehensive understanding of campaign performance across multiple platforms.

Where this is done: The setup and configuration are done within GTM server-side.

When this is done: Whenever you want to track conversions from different advertising and analytics platforms using GTM server-side.

Who does this: The person responsible for managing conversion tracking and analytics.

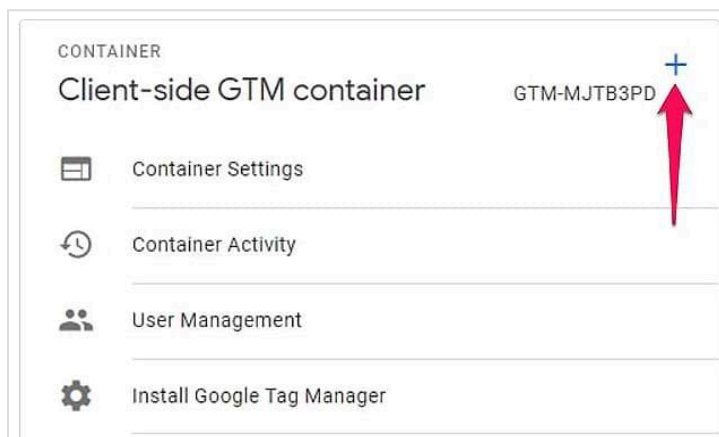


Now, let's proceed with the steps to set up conversion tracking using GTM server-side:

Step-by-step instructions

Create a server-side Google Tag Manager container

Login to your Google Tag Manager account, go to Admin, and click the Plus icon.








Then enter the name (for example, Demo Server Side Container) and choose the type "Server".

Container Setup

Container name

Target platform

	Web For use on desktop and mobile web pages
	iOS For use in iOS apps
	Android For use in Android apps
	AMP For use in Accelerated Mobile Pages
	Server For server-side instrumentation and measurement

Then you will need to create a new project in the Google Cloud Platform (because you need to host the new container somewhere). Luckily, the process here is pretty straightforward. You will need to enter certain information and follow all the steps to finish the task.

First, the window will ask if you want to automatically get a new server for the container or manually create it. The first option involves a much simpler process; choose that.

Install Google Tag Manager

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Set up your tagging server

To get started follow one of the guides below to set up your tagging server.

☒ Automatically provision tagging server

Use a guided flow to provision a server on Google Cloud Platform. [Learn More](#)

Automatically provision tagging server

☐ Manually provision tagging server

Follow the instructions in the [User Guide](#) to manually create a server.

If you are new to the Google Cloud Platform, you'll need to create a billing account and enter your credit card details. When you see the option "Create a billing" account", click on it.

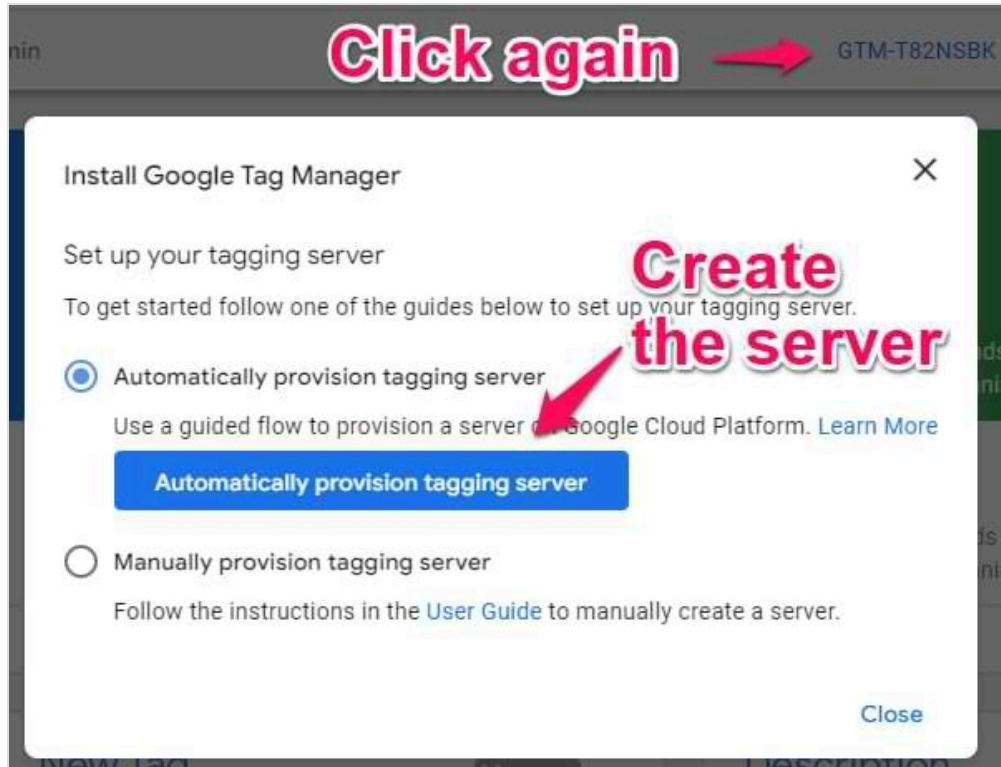
Create tagging server

Use this flow to create and start a server on Google Cloud Platform that will run your server container. The default configuration should fit within Google Cloud Platform's Always Free program, however you may incur some cost. [Learn More](#)

Create a billing account

And then, follow all the steps the platform asks you to complete. Once your account is ready, you will be redirected back to GTM.

Previously, it automatically resumed the server creation process. But if you are back to GTM (but don't see anything related to the new server), open your new SGTm container, click the Container ID and then Automatically provision the server once again.



The loading process might take several minutes, so be patient.

Once complete, you will see the information about the created server (including the Google Cloud Platform Project ID, default URL, etc.)

Install Google Tag Manager

Your tagging server has already been set up.




Automatically provision tagging server

Container Configuration

aWQ9R1RNLutTR0ZRRkgmZW52PTEmYXV0aD1fXzg5WlZxaXlPaWdVR0MtMDFHRmVB

Google Cloud Platform Project ID

gtm-ksgfqfh-ymq3m 

Created by



Default Url

<https://gtm-ksgfqfh-ymq3m.uc.r.appspot.com>

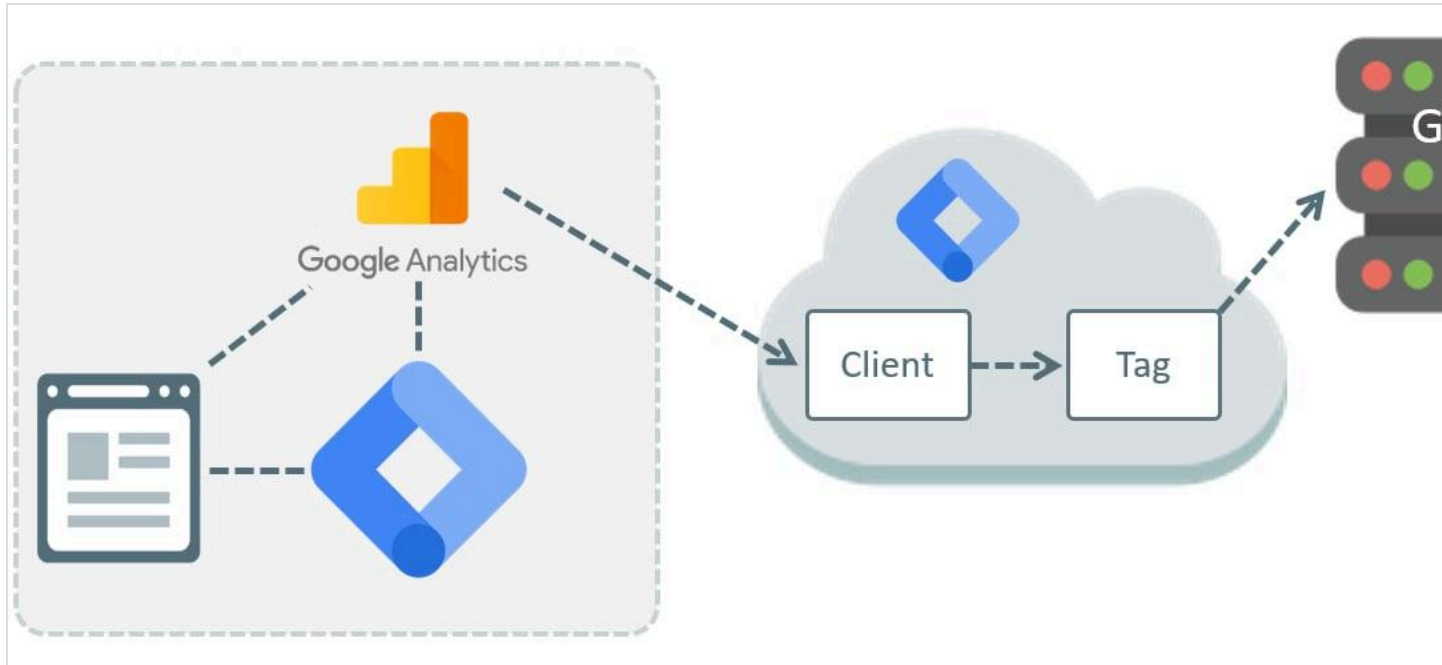
Configure tags, triggers, variables (if needed), clients in the server container

The concept of tags, triggers, and variables is also available in the server-side containers too, but there is one new thing that you need to become familiar with.

Client.

No, this is not a customer.

Clients are responsible for getting and processing/adapting the data received by the GTM server-side container. Then it makes the data available to tags, triggers, and variables in that container.



For example, the data is usually available in the regular web container because some code pushes it to the [data layer](#). In this case, the server-side container receives the data from *somewhere*. The client then catches, adapts, and makes it available in the container.

When you create a new server container, it creates two clients automatically. One is called Universal Analytics, and the other one is GA4.

Workspace Versions Admin GTM-W52X59Q

CURRENT WORKSPACE

Default Workspace >

Overview

Clients

Tags

Clients ?

<input type="checkbox"/>	Name	Type	Priority ? ↑
<input type="checkbox"/>	Universal Analytics	Google Analytics: Universal Analytics	0
<input type="checkbox"/>	GA4	Google Analytics: GA4	0

When that happens, we need to activate a Google Analytics 4 server tag that will send the data further to Google Analytics servers.


To do that, go to *Tags > New > Google Analytics 4*. This tag will forward all the data from a Google Analytics 4 client.

In the regular web GTM Container, you are accustomed to creating different tags for different interactions:

- One tag for pageviews
- One for purchases
- One for outbound link clicks, etc.


In the server-side case, it's enough to have one GA4 tag (at least in the early stages of your SGTM setup).


This tag will receive data about GA4 events, pageviews, purchases (from your website), etc., and will forward them to Google Analytics' servers.

Google Analytics 4 


Tag Configuration


Tag Type

 **Google Analytics: GA4**
Google Marketing Platform


Measurement ID 


G-1234567890




Redact visitor IP address 

false



Event Name 

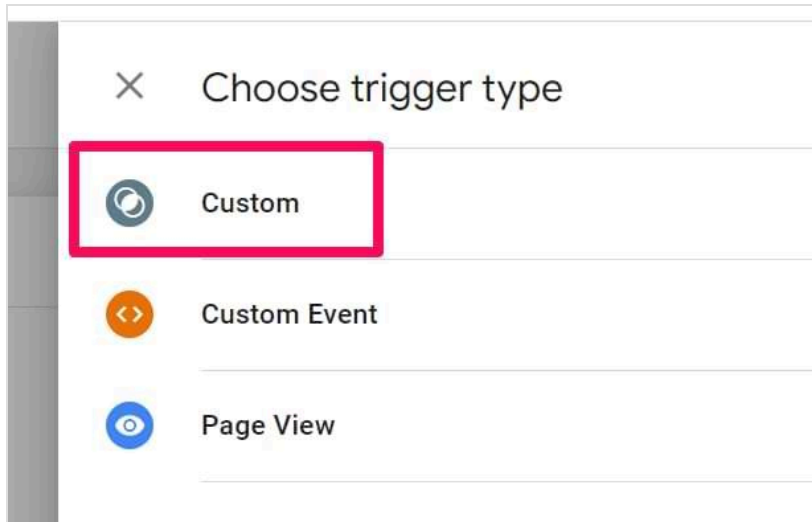
Defaults to event.event_name



When does it make sense to create multiple GA4 tags in the server container? Sometimes, certain Google Analytics 4 events may require you to override settings. Then it makes sense to create a separate tag for X events.

But in this first setup, we don't need to make any tag configuration changes. Instead, let's now move to the trigger by navigating to the "Triggering" section.

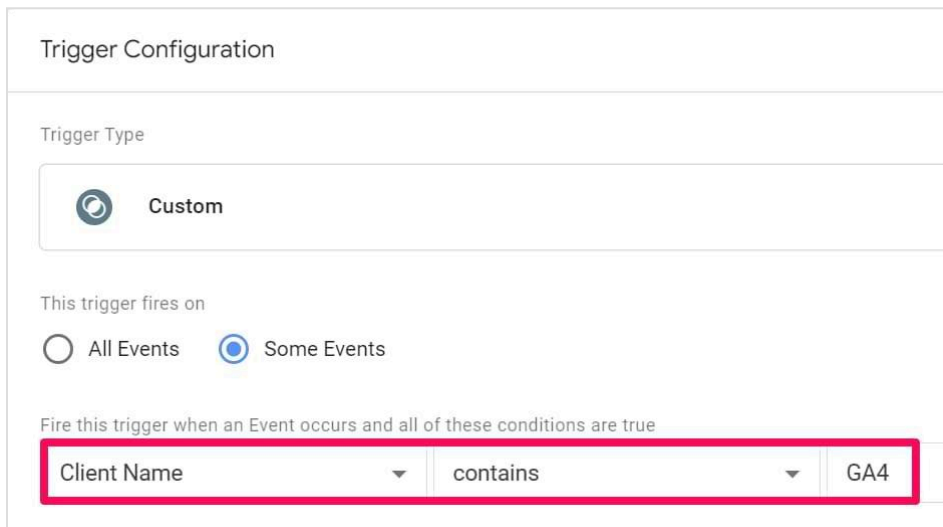
You will see just three pre-built triggers, just like with the client-side setup – *Custom*, *Custom Event* and *Page View*. For our particular case, we need to create a trigger when GA4 appears as the Client name for the associated event. Here, what you need to do is select the *Custom trigger*.



Custom means “A request was sent to the GTM server container”. If you’re not concerned about which requests are sent to Google Analytics, you can keep using “All events”, but it would be better if you were more specific.

What if we have in the future multiple clients in use (which is very likely)? If this is your case, you could limit this trigger to activate only when the default Google Analytics 4 client catches the request.

That’s why you should enter the following condition: Client Name contains GA4

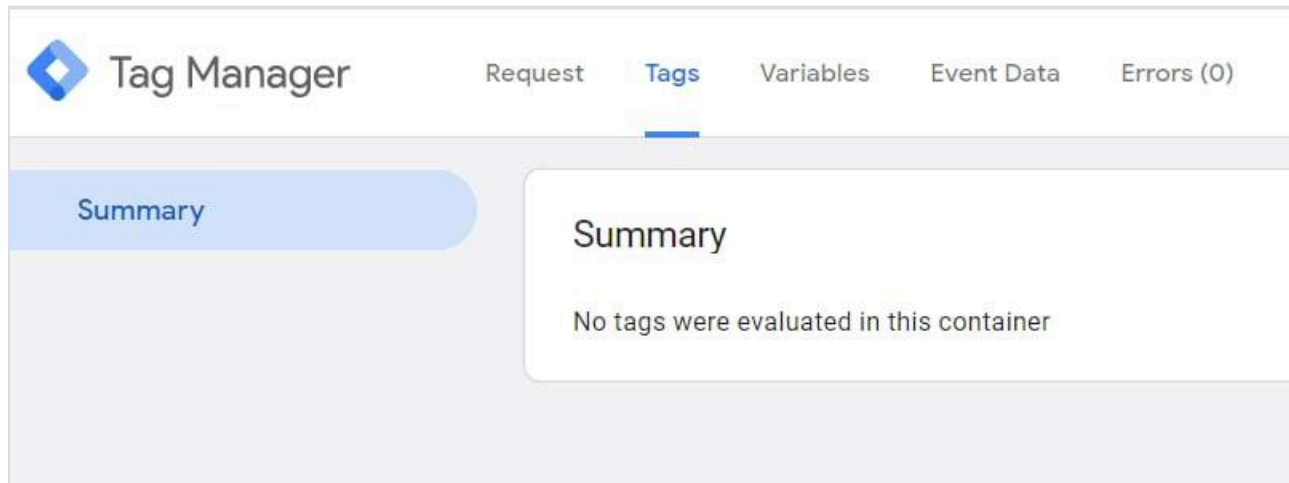
A screenshot of a "Trigger Configuration" form. The "Trigger Type" section shows "Custom" selected. Below this, the "This trigger fires on" section has two radio buttons: "All Events" (unselected) and "Some Events" (selected). The "Fire this trigger when an Event occurs and all of these conditions are true" section contains a single condition row. This row is highlighted with a red box and consists of three parts: a dropdown menu showing "Client Name", a dropdown menu showing "contains", and a text input field containing "GA4".

P.S. *Client Name* is a built-in variable you must enable in the Variables section of the server container.



Save all these changes. It's time to enable Preview and Debug mode. The preview mode will open in a new tab and looks quite similar to the one you are used to seeing in the Web container. However, there are several new things/differences. I'll mention them a little later.

At the moment, you won't see any data there (because nothing has been sent to this container yet).



But that's about to change soon.

Send data to the server-side Google Tag Manager container

There are several ways how to [send data to the GTM server-side container](#):

- A developer can edit gtag.js code snippets added to your site's source code
- A developer can write some custom code/library that prepares and sends the data to the server container itself
- You can configure a Google Analytics 4 tag in Google Tag Manager's web container.

We will use the third option right now.

Let's say you have a website where a regular GTM web container has been added. You are already firing a GA4 tag on every pageview. Most likely, you also have some additional event tags.


All of them are sending data (by default) to *google-analytics.com/collect* (or */r/collect*, etc.). Now, we should change that destination URL and forward all requests to your fresh new server-side container.




How do you do this? There is a field in the Google Analytics 4 tag (of your web container) called Send to server container. Enter the server container URL in this field. You can find it right under the measurement ID field of your tag.

Tag Configuration

Tag Type

**Google Analytics: GA4 Configuration**
Google Marketing Platform


Measurement ID [?](#)



☒ Send a page view event when this configuration loads

☒ Send to server container [?](#)

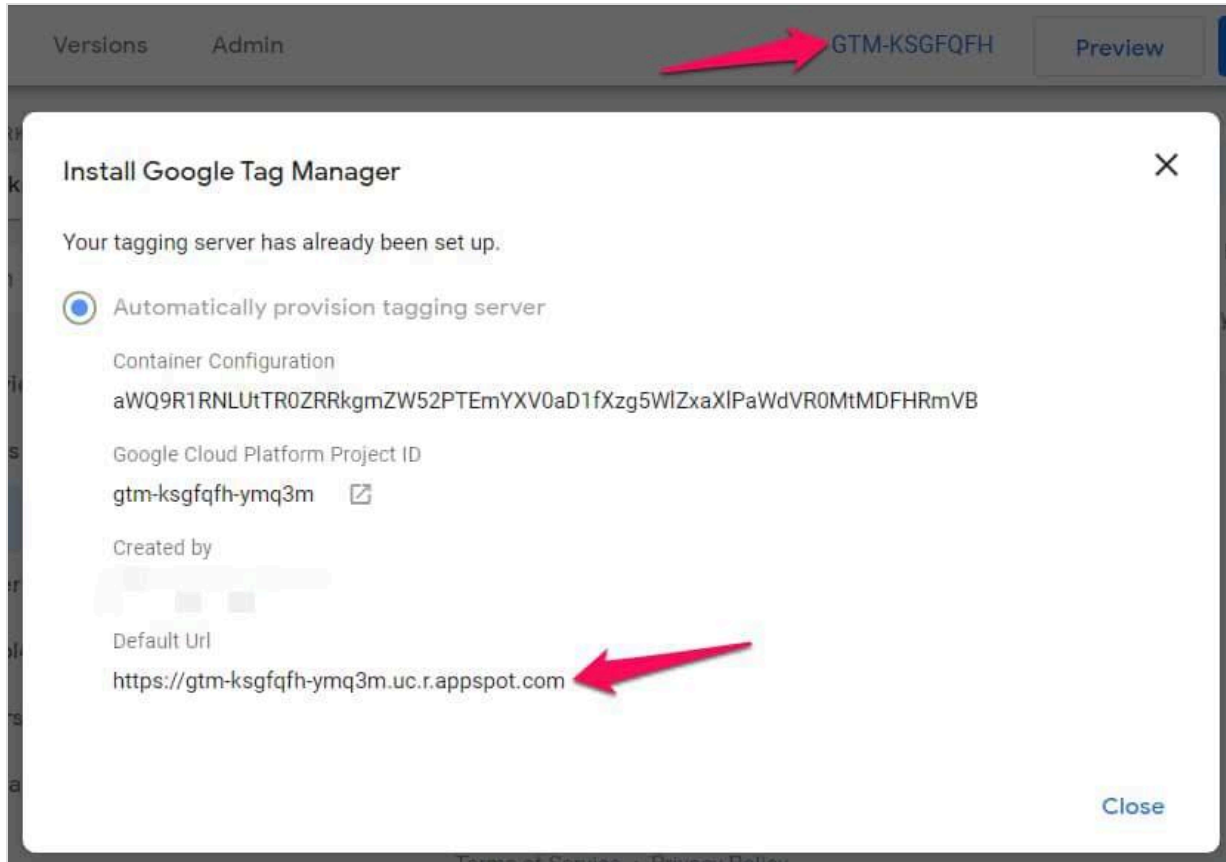
Server Container URL



That's where we will need to enter the URL.

You will likely want to send ALL GA4 requests to the server-side container. What URL should you enter?

Let's go to the server container and click the container ID:



In the popup, you will see the Default URL, copy and paste it to the Server Container URL in your web container.

Time to test

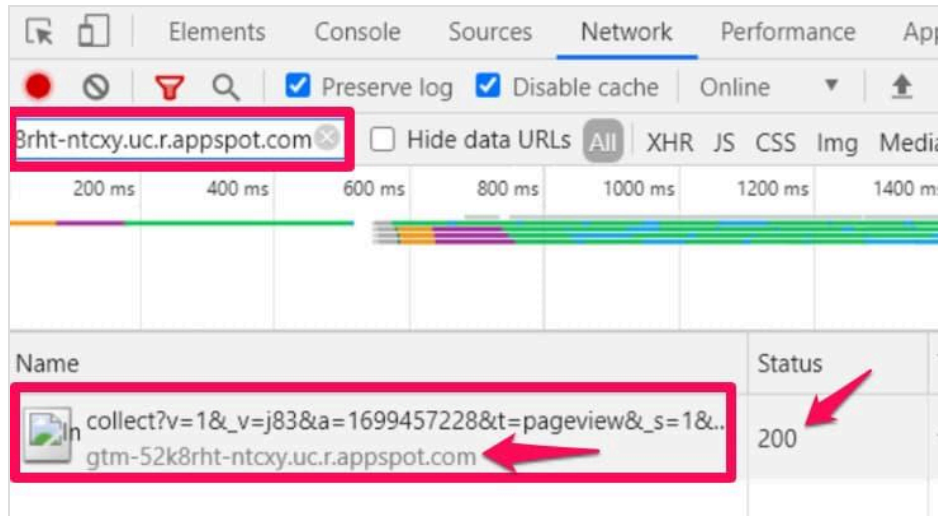
Refresh the preview mode in your server-side container (by clicking the “Preview” button in the GTM interface once again).

[Enable the Preview mode](#) in the GTM container.

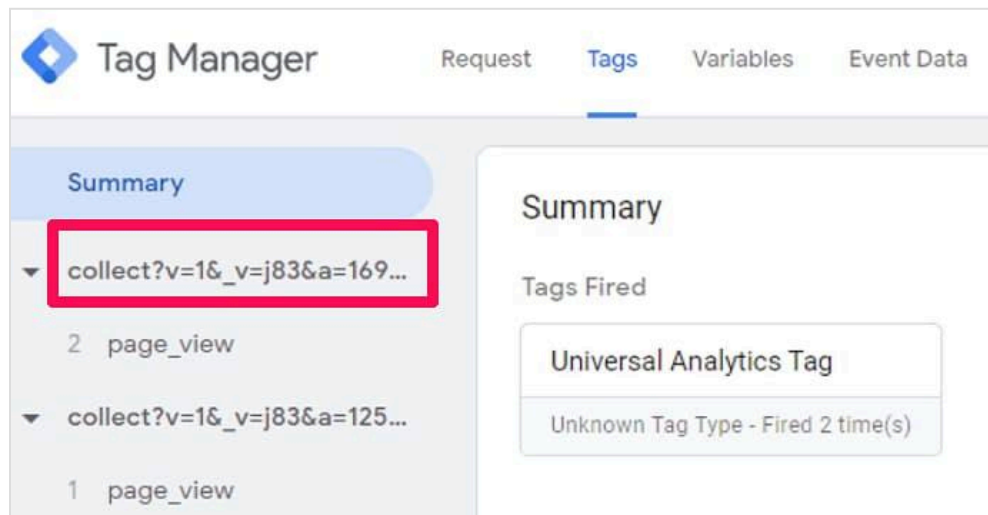
Firstly, a Pageview tag in your web container will fire (if you have set it to fire on All pages).

You can also check the Network tab of your browser developer tools. Enter “*/collect*” (without quotation marks) to find the request. For example, suppose you can’t refresh the page once again (while */collect* is still in the search bar). You should see the request sent NOT to google-analytics.com but to your container’s domain (should contain *[...]appspot.com*). If the status of this request is 200, that’s good.

Power



Then you need to go to the preview mode of the server GTM container and see if the request was received. If yes, it will display on the left side of the preview mode.



Click it and check whether the GA4 tag in your server container fired. You can click the tag and see what kind of data was sent further to Google Analytics.

[Universal Analytics Tag >](#)

https://www.google-analytics.com/r/collect?v=1&_v=j83&_u=QACAAEAB~&_gid=139669608

HTTP Request Details

Request

	Method	Request URL
GET		https://www.google-analytics.com/r/collect?v=1&v=j83&u=QACAAEAB~&_gid=1396696084.1597561010&r=1&a=1250817716&s=1&dl=https%3A%2F%2F... &ul=en&de=UTF-8&dt=GTM%20demo%20site%20%E2%80%93Just%20another%20WordPress%20site&sd=24-bit&sr=1280x720&vp=1148x588&jc=0&jid=1581115728&gjid=1007796041&cid=12RBpmiyFHKCfSiufBcAxX0VbIKDCmOp%3D.1591694048&tide=UA-83848370-5>m=3wgs871MjTB3PD&z=1416569898&uiip=196.240.57.172&ua=Mozilla%2F5.0%20(Windows%20NT%2010.0%3B%20Win4)%20AppleWebKit%2F537.36%20(KHTML%2C%20like%20Gecko)%20Chrome%2F84.0.4147.125%20Safari%2F537.36&jscid=0.1591694048&t=pageview

Request Headers

None

Also, feel free to explore other tabs of the preview mode, e.g., Event Data. Think of this tab as a cousin to a Data Layer tab in the web container's [preview and debug mode](#). Both of those tabs show raw-ish data that is at your disposal.

Finally, go to your GA4 real-time reports and check whether the data is visible (because it should).