#13 Server-side GTM, what is it?

[00:00:17] **Dara:** Hello, and thanks for joining us in The Measure Pod, a podcast for analytics enthusiasts where each week we dive into an analytics topic, a problem or an opinion, and we try and have a little bit of fun along the way. I'm Dara, I'm MD here at Measurelab. I'm joined as always by Measurelabs longest serving analytics consultant, I really need to stop saying that every week, uh Dan, it's such a mouthful. Hey Dan, how are you and what are we going to be talking about today on the show?

[00:00:47] **Dan:** Hey Dara, I am good thank you. This week we're going to bring up the topic of server-side GTM, what is it all about? And just have a, I would say, not a hugely detailed conversation about the intricacies of how it works, but more so that. I think we mentioned a couple of weeks ago that it's just come out of beta. So it's now a fully fledged product from the world of Google and within the Google marketing platform. And there's lots of eyeballs on it right now and we are increasingly getting more hands-on with it, with our clients, with ourselves and our familiarity. So the long and short of it is let's have a talk about what the hell it is. Why is it important? Why is it a thing? Why now? And how is it going to help marketers, analytics people with their jobs in the future.

[00:01:32] **Dara:** All right. Let's start at the beginning. So what is server side GTM?

[00:01:37] **Dan:** Well, the key thing there is the what server. So we don't really talk about it much or at all, but when we're talking about GTM, we're talking about client side. So the two sides, of the same coin as it were, are client side and server side. So the client side means it's hosted on the website. So that is just the traditional Google Tag Manager, copy and paste the GTM snippets onto your website, that is client side. So the client is the web browser, in essence. The server is any server. So we think of servers as places to store data, right? Cloud based servers or website servers or whatever. But it's the same difference. What we're doing is we're saying rather than hosting our GTM within the website or the browser, we can host it within a server. Conceptually, it still does a very similar thing. It serves tracking for analytics and marketing. The only difference now is it doesn't originate from the person's browser, it originates from your server. So the reason why this is important is because it takes that energy, that stress, that bandwidth off of the browser, and then moves that onto something that you own that can be running at its own pace, doing its own thing without a dependency on something quite fragile or fickle like a browser to, to be cooperative.

[00:02:45] **Dara:** So aside from efficiency or having control over it by implementing it on the server side, there must be other benefits. Why else is this a big thing? Why should people care about this being an option now?

[00:02:58] **Dan:** There's a couple of reasons why people are doing this now. The first one is that it takes the load off of the browser. So there's an opportunity there to decrease page load times. Actually, I honestly don't know how much of a difference that will make. I think you're going to have to do some before and after comparisons, different every time. But the main one is the control, but you literally have control over what every single ad platform, marketing tool, whatever it is you're tracking through GTM. You have control of what it gets, what it sees, what it receives. That's not something you can do on the client side version of GTM. So what happens on the client side is that you load the JavaScript libraries for, let's say Facebook, so the Facebook pixel. You load that tag, it does lots of tracking, some of which you might not even be aware that it's doing. So, what we're basically saying is taking all of that control away from the platform, so in this example Facebook. And when you go into the server, you are literally saying Facebook, here is your data. Rather than letting it collect what it wants to collect without you necessarily knowing, you're quite literally handing the data to that platform. The other thing is the, it's a really hard way of explaining, but it's not about getting around browser policies or privacy policies, but it's just a different way of allocating a user ID. So let's take Google Analytics for example. Google Analytics uses a first party cookie, but when that's loaded through the Google Analytics tags, all the JavaScript libraries that you insert through Tag Manager. That is then treated differently to then if your own website sets a first party cookie. If you take things like ITP or ETP from Safari and Firefox, they will treat the Google Analytics cookie completely differently to let's say a cookie you would have sat on your website yourself through keeping a basket alive when a user comes back to the website. Moving to server side GTM to serve that Google Analytics tracking. What that will mean is that it will appear to the browser, but it is your website setting that Google Analytics cookie. So you have the luxury of having a longer lifetime attributed to that cookie. So it's a really hard way of explaining this without it sounding like you can get around ITP because it's not about that and it's not for that. What it is doing is setting cookies in a HTTP first party context, rather than by JavaScript, which then can be treated differently depending on what browser you are in.

[00:05:16] **Dara:** So, is there a cost associated with this? Presumably if this is going to be hosted on the server, there's going to be a cost implication.

[00:05:24] **Dan:** With anything there's always going to be positives and negatives. And I think the negative has to be, or the biggest negative has to be cost. We've grown accustomed to tag management being a free service. We're using this product kind of like we've grown accustomed to Google Analytics being a free service as well. Even though technically it's a free tier of, uh, of a paid product. So. What it is, is that you'll end up paying for it. And what you're paying for is the server to process all this data that they're kind of data you're sending into your ad and analytics platforms, but also the data it's receiving from your website. It depends on volume, so how much tracking, how many things you're processing to, how much you pay. So the more volume your website gets in terms of traffic, the more things you're tracking, the more it's going to cost you from a server cost. Way Google phrases is that it starts from $120 a month. So it's $40 per module or per something in the server. And it says to have three of those, but there are various options of having automatic scaling and you can have as many or as little of those as you would like. Ball park is going to be at least, I mean, I would budget for a couple of hundred dollars a month, but expect that to be a variable cost that grows. And obviously this depends on what server you host this on. We're talking about Google Tag Manager here, but you can actually host this on any server you want to, so obviously they would love you to go into the Google Cloud Platform and have it served through their service. However, you can take this to the Microsoft stack and you can take this to the Amazon stack, or wherever you really want to host this you can. All of those will have slightly different costings or approaches to costs. Although it's always going to cost and that's, that's the biggest drawback. Going back to the pros and cons, another negative aspect of this or a con, is the fact that it's so new. There's just not a huge amounts of resources for support, but also the actual tags themselves, the actual platforms that are integrated with a service side tracking is quite limited. So you've got the things like Google Analytics, Google Analytics 4, Google Ads and the Google Marketing Platform tags. There's also community templates around things like the Facebook server tags, so that's the Facebook conversion API. However, there isn't one, as far as I'm aware at the time of recording for Microsoft Ads, for example, there's no API for that. There's no way of setting that tracking within the server. So the idea is sound, we want to move all of our tracking from the client to the server. However, we need each platform that we are implementing to be able to receive data from a server, if that makes sense. So it's a slow process, but in a way, what we're doing at the moment is having a slow migration process from client to server and tag by tag. And in a way it's just about minimizing the bloat on the website, on the client and adopting more within the server, but it is not a one-to-one migration. You can't just lift and shift everything you've already got client side to server side. It is fundamentally different technology and we need all these platforms to catch up.

[00:08:14] **Dara:** And you said that you can host it on any server. I'm assuming there are some advantages to having us in the Google Cloud that you would lose maybe if you hosted it elsewhere.

[00:08:25] **Dan:** I would imagine so, but I honestly don't know. I have not used server side GTM on anything but the GCP. I'd like to think that there's no difference, the platform of Google Tag Manager is still the same. So it doesn't affect the workings of GTM, but again, I don't know.

[00:08:40] **Dara:** Does this mean that in time, client side GTM will be phased out or is that going to continue to be an option? Is it going to be a case of businesses weighing up the pros and cons of each?

[00:08:53] **Dan:** It's a really good question, and I've not really explained how it actually works. And I think that's the important part here to understand how and where this might go in the future. So, from my understanding. And again, I am not a highly technical person, especially when it comes to server side, anything. But the idea is that you have one set of tracking on your website, you can never remove all tracking from your website. So you'll have one set of tracking and believe it or not, it's GA4. At least that's what they're asking you to implement. So you're going to implement GA4 on your website, and then rather than that feeding directly to Google Analytics, that feeds your server. And then what you can do is you can take that event that you've just tracked using the GA4 taxonomy. You haven't tracked anything yet, it's just fed to the server. You can then take that and then you can pass that to Facebook, you can pass that to Google Analytics of course, you can pass that to your Google Ads and whatever other tags you want to. So in a sense, what it's doing is it's taking five marketing and analytics tags, and turning that into one. In a way, what you're doing is you're creating a data stream from your website of GA4 events going into your server, you're then deciding to ferry that data out to these different platforms. How you implement GA4 on your website, it makes no difference. So you could keep your client side GTM to implement GA4, and that is no problem. So moving to server side GTM does not mean you need to get rid of the client side GTM. And actually it's probably a really good idea to keep it because there are some things that you will never be able to move to the server. So tools like Hotjar for example, the ones that are doing session recordings and other similar platforms. You're never going to be able to move those to the server because they need to be monitoring all Dom interactions on the website at all times. They're still going to be needing to be implemented somehow, and GTM is still a completely sensible way of doing that. However, if you wanted to strip it back to it's component parts, you can implement native GA4 gtag tracking on your website, hard-coded no GTM. You can point that to your server side GTM, and then you can do loads of stuff with that you can quote-unquote implement Facebook tracking, Google Analytics three, four tracking, and all those other things. The future is really GA4 only if that makes sense. So your website will only have implemented via GTM or not GA4. That then feeds the system, the server, which then does everything else with that, including GA4. So in a way, what Google are suggesting, is to use the GA4 tracking as almost like a generic taxonomy on your website for any tracking. And then you take that into what you want with them, obviously, including GA4 itself. The thing with that as well is that you're not limited to just tracking websites, you can do this with your apps. You can do this with server to server tracking. So things like, and this is where I get really excited about the potential of this tool, things like Measurement Protocol in GA, right? You can do all of that from GTM. GTM server side is the future of GTM, the client side is almost redundant in a way or not redundant, but it doesn't need to be used. You don't need a client side version of GTM. You just need gtag, you just need GA4.

[00:12:09] **Dara:** You mentioned things like Hotjar earlier, would you not still need to have the GTM container codes on the website, if you did want to have tags like Hotjar?

[00:12:18] **Dan:** Yeah, absolutely. It all depends on the reason for moving to the service side version of GTM or moving things to the server. So GTM the client side GTM comes with a bunch of stuff and it might just be useless stuff for what you need. So GTM tracks, or can track a lot of triggers, tags, variables, all those things, but you might only need it for one purpose. In which case it might be overkill. And even if it is the tiniest amount, that overkill could be doubling the page load time, for example. So if you wanted to minimize the amount of code you're serving onto the website, you might opt out of using GTM. And then in that case where you're using something like Hotjar is you would just implement that native on the website through your CMS or through your web devs.

[00:13:00] **Dara:** But let's say you do have a hybrid setup where you do have a need for, so I get it, if it's just Hotjar, you might just hard code that onto the site. Let's say it's not just Hotjar and you have, I don't know, five tags that need to go on the client side, and then you also want to use server side GTM. Do you know how that actually works? Is it all done through one interface? And do you have some tags that are controlled by the server? And some that are, are, are placed in the traditional way in the container that exists on the, on the client side?

[00:13:33] **Dan:** So it is a different container in GTM. When you now create a new container in GTM, you have the various options we've had before like Android, iOS, web, AMP. But what you also now have is the server option. In a way you could even think of it from an interface perspective it is a migration from one container to another. It's just that one container's implemented differently. Let's say you start with 10 tags client side and 0 tags service side. You might move five of them across and you still keep both containers there, five in each. And as the support for server side continues to grow, those five tags on the client side might have now supports in the server. In which case, then you can remove those last five and move those to the server to. I think it's at that point, when all of your tags are in the server, you might ask the question of why do I need my client's side GTM? Because your client's side, GTM is only going to be implemented in GA4 now, or at least that's the idea. You will always have GA4 implemented natively or via GTM, which then feeds the server. So do you then implement GTM to then implement GA4, or do you just implement GA4. That's going to be different every time, but that's going to be the conversation.

[00:14:43] **Dara:** Last question from me on this. Is there a steep learning curve in terms of using it? Do we need to have more if let's say someone who isn't a, I mean, we're all technical in this, in this game, but let's say you're more on the marketing side and you don't come from a developer background. One of the benefits of GTM is, at least to implement fairly straightforward tags, you don't need to be overly familiar with coding. Is a different with the server side GTM, is it harder to use? Is there a learning curve or is it just a case of understanding the nuances and getting familiar with the different type of container and working with us? it?

[00:15:17] **Dan:** Yeah, I think, I think the latter. It is a technical tool, the same as Google Tag Manager client site. But the Google part of the name makes it super user friendly and they go out of their way to kind of market it as a marketer friendly tool and not a developer tool. However, we know that marketers can go so far and then you need developers to help in terms of just using client side GTM. The same goes for server side GTM, and the biggest thing is getting it set up. So you need to create a server. You need to ideally create a sub domain for your website, which you then host that on. So you'd have gtm.measurelab.co.uk, for example. That DNS stuff is the pain that we as marketers or consultants can't do, but using it is exactly the same. Not exactly the same, there is a learning curve, but the deployment of tags and things like that are, are exactly the same. And also this isn't, this is another Google thing I have to say, Google do this all the time. Google are not the first, they did not invent server side tracking, right. The reason is now within our conversation is because Google has done it. So you've ever used any tools like Segment or anything like that before, it's exactly the same, or at least, similar enough. This is not the first to do it. However, it's Google a fide, which makes it a little bit friendlier to use. And I can imagine, although we're not there right now, the adoption is going to exponentially increase.

[00:16:38] **Dara:** It reminds me of that quote about Johnny Cash. If Johnny Cash covers your song, it's not your song anymore.

[00:16:43] **Dan:** Yeah.

[00:16:44] **Dara:** Uh, is really interesting. I have to admit I'm not too clued up on the full potential of what this is going to offer, but I know people are very excited about it. So I reckon we bring somebody on in a future episode and we dig into this a little bit deeper and we get their thoughts on why this is such a big deal. And maybe the shape that this will take in the future.

[00:17:04] **Dan:** Yeah, for sure. And if that's you, let us know podcast@measurelab.co.uk.

[00:17:09] **Dara:** You don't mean me.

[00:17:10] **Dan:** No, no, sorry. You, the audience out there, sorry. Um, well, anyone really, I'm sorry, just talking directly to the audience. Anyone that has any practical experience using this will be super valuable, actually. And especially if you've used on different servers that isn't the Google cloud platform. And that would be really interesting to hear about if there's any issues or any caveats or anything you're missing out on by not using the Google suite of tools.

[00:17:33] **Dara:** Alright, that's enough about service side GTM for now. I think we've pushed ourselves to the limits of our knowledge about it at this stage. What have you been doing outside of work lately Dan to chill out and wind down?

[00:17:46] **Dan:** Well this week, I've just come back from a long weekend away in Devon. Which might sound quite nice and holiday-esque, but it's where my wife grew up. So it's one of those weird ones where I think of it as a holiday, she doesn't. But it was nice to go visit some of her friends and stay for a long weekend away from the normalities of life at work and home. Um, you know, which is the same thing now. How about you, Dara? What have you been doing to wind down?

[00:18:12] **Dara:** Well, I've started reading Dune in advance of the film coming out. I haven't read it before and I saw the trailer for the film and I just thought it looks amazing. I've also had like loads of different people recommend the book to me over the years, and I finally got around to reading it. I'm only about a chapter in, I literally just started last night. Um, but it's so far so good and I, I ideally would like to finish it before I see the film, but that might not happen.

[00:18:38] **Dan:** I'm very excited for the film, the trailer looks epic. I can not wait.

[00:18:42] **Dara:** Okay, that's it for us for this week. As always, you can find out more about us at measurelab.co.uk. You can email us at podcast@measurelab.co.uk, or you can find us on LinkedIn and please do reach out if you have any questions or if you'd like to come on the show and discuss a topic, or even just suggest a topic for us to discuss. Join us next time for more analytics chit-chat. I've been Dara, joined by Dan. So it's bye from me.

[00:19:11] **Dan:** And bye from me.

[00:19:12] **Dara:** See you next time.

[00:19:30] **Dara:** My name has no last meeting in my head.