

White Paper

How to find and implement the ideal Server-side Tracking solution

*We help you understand the challenges and guide you
step-by-step to set up your own configuration*

Introduction

The marketing industry frequently introduces buzzwords but often their meanings remain unclear. One such term is “server-side.” Despite its nearly 20-year history, many still struggle to grasp its significance. This white paper aims to clarify the concept, guide your planning, and assist in migrating to this important standard.

When discussing server-side, it is fundamental to understand its basis. It goes back to internet protocols and the basic question: Where is one computer requisitioning information (client) and another responding (server)?

This can be seen as an analogy for the requesting and serving of content.

Client-side Tracking vs. Server-side Tracking

Traditionally, tracking has been done on the user’s browser using a client-side standard. Client-side tracking relies on user browser data that is passed to third parties such as Google, Meta, or other analytics and ad providers.

While this system worked well for many years, it has substantial drawbacks. Solutions like ad blockers quickly emerged to stop tracking. Additionally, concerns about data sovereignty and security arose.

Moreover, because every tracking script on the browser requires the capacity to load, significant drawbacks in website performance and security issues were observed, as scripts could be misused..

However, a solution was found: server-side tracking. First introduced in 2006, this technology allows tracking data from tags or pixels to be sent to a web server before forwarding it to server destinations.

This means data is tracked by one script on the browser before being sent to a single server, allowing the website owner to orchestrate communication to the receiving points.



Getting started with Server-side Tracking

After this brief introduction, many may still wonder:

- **How do I get started?**
- **What do I need?**

This white paper aims to address the most critical questions and steps on your way to implementing server-side tracking.

Overall, the process can be broken into two phases: Assessment and Migration.

Our expert tip:

Assessing your current setup is a good starting point to evaluate possibly deprecated tools and tags, which do not need a migration and is the first step to a healthier data landscape.

Next you need to identify which tools are critical to be server-side (for privacy, security and other reasons) and which offer that option, as not all tools and methods are server-side ready.



Mischa Sinner

Solution Engineer @ JENTIS



Assessment

1. Analyze your status quo
2. Create a data strategy
3. Choose a tool
4. Assess resource requirements

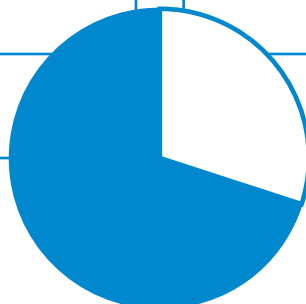


Migration

5. Preparation
6. Replication
7. Deployment
8. Data verification
9. Iterative improvements
10. Turn off redundancies

70%

30%



Questions to consider for Assessment

While the assessment might have fewer steps, it involves more considerations. The migration then follows a standardized process.

Let's get started. Fundamentally, it is important to understand what you currently have, where you want to go, what tool you will use, and what resources you will require.

Part 1: Analyze your current status

- **Tech Stack and Capabilities**
How does my current tech stack look, and are there issues with the tools or the capabilities of what I can do with it?
- **Tracking Scope**
Where am I tracking? Do I want to track on the web only, or are other channels, such as apps, or a mixture of the two, of interest?
- **Regulatory Compliance**
Are there specific privacy or other regulations, such as GDPR or HIPAA, that I have to adhere to?
- **Data Layer Structure**
How is my data layer structured, and is everything documented well?
- **Operational Constraints**
Do I have constraints in operating my business, such as legal or financial ones?
- **Departmental Needs**
What are the needs of other departments that are not covered yet?

After answering these questions, determine what your future setup should accomplish and the issues it should resolve.



Part 2: Set your tracking strategy

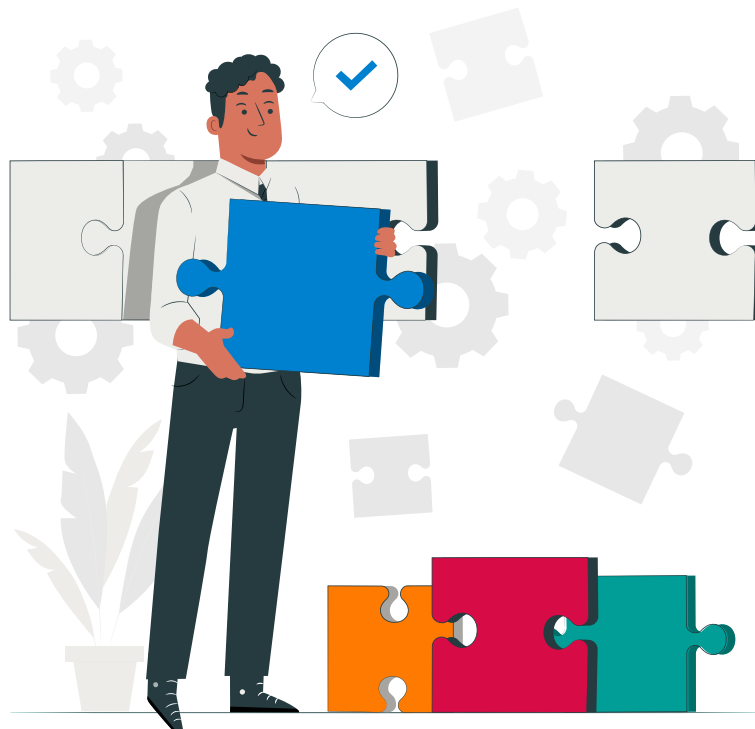
- **Future Data Requirements**
What data will I require in the future for my website?
- **Tracking Scope Expansion**
Where do I want to track in the future? Will I expand from web-only to include apps as well?
- **Tech Stack Integration**
Which tools do I want to incorporate into my tech stack moving forward?
- **Leveraging Synergies**
What synergies do I want to leverage by making these changes?
- **Tracking Approach**
Do I want to track client-side, move fully server-side, or adopt a hybrid approach?
- **Future Preparations**
Are there future topics, such as raw data, that are not yet relevant but for which I want to be prepared?
- **Project Oversight**
Who will have internal responsibility for this project's oversight?

These fundamentals are crucial for progress, as everything else will build upon them.

The next step involves deciding how you want to track server-side. There are many ways to do this, from standard applications like Google to specialized tracking solutions like JENTIS or custom-built server-side instances.

Each option is specific to use cases, and the decision will be based on parts 1 and 2.

Consider using a grading scheme to assess the right tool for your needs.



Common misconception

Many companies struggle to understand why they should pay for something that was previously free and attempt to develop the technology in-house. While this might work for specific use cases, it often leads to problems as legacy costs like 24/7 server maintenance and connector fees are not considered.

Choose wisely!

The final part of the assessment involves evaluating the internal resources required. This helps plan the migration and align stakeholders.

Part 3: Resource Evaluation

- Data Layer Status**
 What is the current state of my data layer? Is everything documented and up to date?
- Required Updates**
 What changes are needed to update it and remove outdated components?
- Internal Resources**
 What internal resources do I have, and are they available?
- Resource Gaps**
 What internal resources are missing?
- External Assistance**
 Do I need external help? If so, do I have the budget for it?
- Required Expertise**
 What type of help might I need, and do I know the right people or companies to provide it?

Once these questions are answered, align your resources and obtain commitment.


Grading scheme

 **Price**
 What are the total monthly costs?


 **Community Support**
 What resources can you obtain from the community?

 **Tool Integration**
 How many tools are integrated and maintained by the provider?

 **User Interface and Usability**
 How easy is it to use?

 **Data sovereignty**
 Do I have the full control over my data? Can others use my data?

 **Tool Dependencies**
 How much am I bound with one tool provider and their tools?

 **Maintenance**
 How much effort do I have to put in to run and maintain the system?
 (e.g. Tool Integration / Server)

Now that you've assessed your needs, defined your goals, chosen the right tools, and aligned your resources, it's time to start the migration process.

Preparing for Migration

As a first step, prepare for your migration by following these general steps to introduce server-side tracking on your website.

1. Implement JavaScript for Tracking
2. Set Up the DNS Record
3. Adapt/Adopt the New DataLayer

Refer to their setup documentation if you are using a CDN like Cloudflare. Additionally, based on your tool provider, you may need to:

- Set up servers (GTM)
- Set up CMP Bridge (GTM, GTM Brokers)

Once this is done, you will have a solid foundation for your future in server-side tracking.

Migration Process

Next, examine your specific setup and try to recreate it. This is an excellent opportunity to review your data points and eliminate any that are unnecessary.

Set Up chosen Tools, Triggers, and Events:

- Select and configure the tool
- Choose between client/SST/hybrid
- Migrate existing tags, triggers, and events
- Add new tags, triggers, and events

Once this is done, you will have recreated your existing setup with adaptations and will be able to track data. To ensure accuracy, it is important to set up a second account for tracking your data for comparison.



A/B Testing:

- Set up a second account for A/B testing
- Once satisfied with the results, rewire the accounts to send server-side data to your existing account

This is one of the most important aspects of the migration process and also one of the areas with the most issues, especially concerning data accuracy.

A good tip is to focus on hard metrics such as page views to better understand whether your system is working correctly.



Deployment

Next, you will want to proceed with the integration to ensure that data streams send the correct data from the right endpoints. Make sure, for instance, that your data is sent only by the server-side or through a hybrid approach.

Debugging:

- Debug the setup when ready
- Fix any errors

Publishing:

- Publish the setup

This is an iterative process, and you should repeat it until you are satisfied. If necessary, adapt your setup and restart the process.

Our expert tip:

A migration process from client-side to server-side can be a tricky task. Even though one would be inclined to compare both tracking processes under the same light, it is more like comparing apples with pears.

Both seem to have a common denominator, yet they are completely different tracking methods.

Mischa Sinner
Solution Engineer @ JENTIS



Verification and Iterative Improvements

The next step should be a quality control process to ensure that your data quality improves.

Check Defined Data (for example Pageviews or Homepage):

- Refine tags, triggers, and tools as necessary
- Re-check and iterate

Compare Accounts:

- Allow time to compare both accounts
- Investigate any mismatches for plausibility, such as changes in user numbers with server-side tracking

Many users don't realize that switching from client-side to server-side tracking also changes the data. What do we mean by this? Some changes will occur, especially concerning users and sessions.

Due to the 1st party cookie not being blocked, you can expect your tracked user count to decrease, as users are now recognized more accurately and not counted multiple times.

Another aspect is that, due to the circumvention of ad-blocker preventions, the overall number of Pageviews, Sessions, and Users is likely to increase as they are now being tracked.

This can be particularly tricky when both effects occur simultaneously and counteract with each other – the uplift in data quality might not meet the eye immediately, but it is there.



Documentation

In one of the final steps, you will want to document your work for future projects. This can greatly reduce the overhead for future endeavors.

Document DataLayer and Tracking Concept

- Define guidelines for future improvements

Proper documentation is essential for long-term reference and should always be a key part of any project.

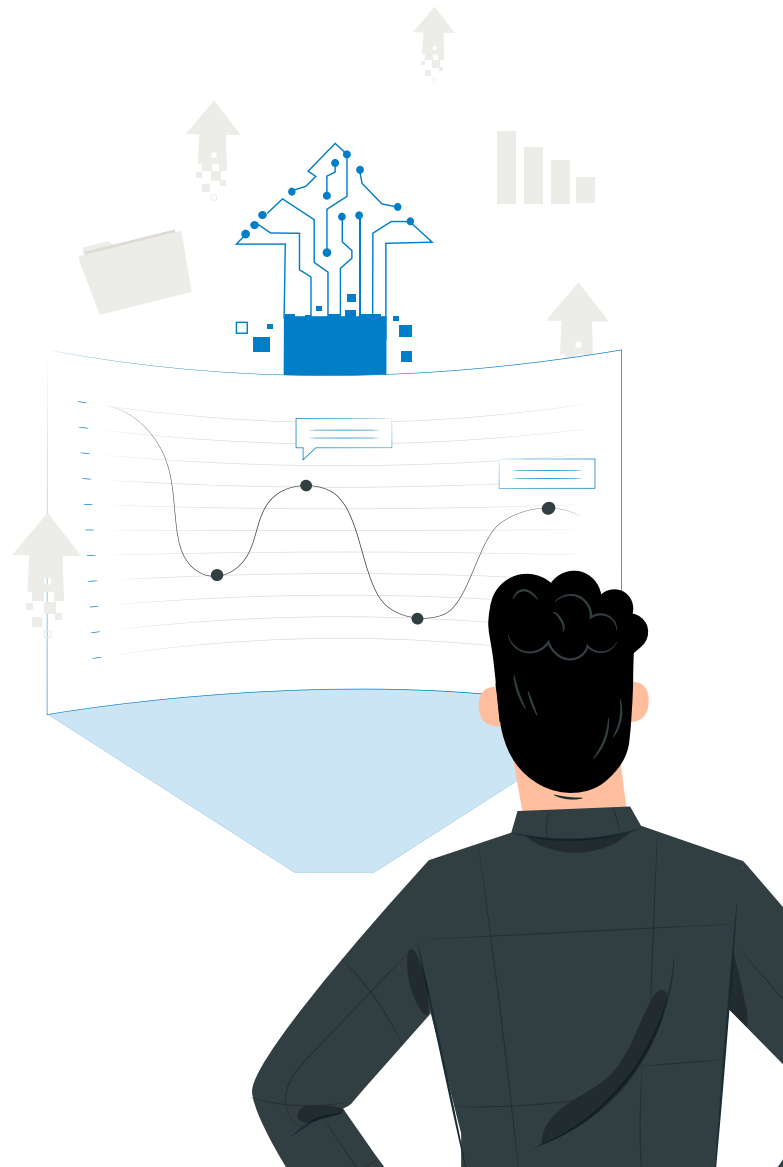
Speed up your Website

Turn off Redundancies

You've made it to the last step. Once you have ensured that the data looks good and you are ready:

Switch Live and Staging Accounts

- Switch Live and Staging Accounts.



Congratulations!

You now have your own server-side tracking setup.

As a next step, it makes sense to remove all redundant tools and JavaScript from your website, as they could negatively impact performance.

For more guidance on server-side tracking and specific considerations, please refer to the additional resources provided.

Information on Essential Mode from JENTIS or specific tool integrations such as GA4 or Meta CAPI might be of particular interest to you.

The quick and easy way to better marketing performance

With **over 100 tested connectors and integrations**, JENTIS integrates smoothly into businesses' tech setups, including Google Analytics 4, Google Ads, Google Floodlight, Amplitude, Adobe, Meta, LinkedIn, and many more.

As a **hybrid solution**, JENTIS supports both **client-side and server-side tracking**.

The transition is seamless, allowing parallel operation while migrating without altering existing data pipelines, **avoiding costly tool changes or retraining**.

Teams can continue to use their existing reports and tools.

Implementation in minutes



Create JENTIS container



Implement JavaScript snippet



Set DNS A Record



Configure connectors

More than 100 platforms and tool integrations



Trusted by



Increase your campaign revenue AND compliance with JENTIS

Explore how JENTIS' state-of-the-art data protection measures, unmatched data quality, and compliance capabilities can empower your business to confidently adapt to evolving regulatory demands globally.

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