



CLICK FOCUS

THE GUIDE TO:
**IMPROVING THE
PERFORMANCE OF YOUR
DRUPAL SITE**



**BUILD SMART
BUILD STRONG
BUILD BEAUTIFUL
BUILD EFFICIENT
BUILD FOCUS**

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*no limits
development*

WHO IS THIS CHECKLIST FOR?

If your site is starting to grow and you need to consider upgrading your performance, this checklist will educate you on the areas to look at and what your options are.

When discussing these tools, we suggest you look at your options with the following ideas in mind:

- ▶ Understanding and examining your business goals to plan effectively for current and future hosting capacity.
- ▶ Understanding user feedback and implementing a successful strategy to meet and manage expectations on a short-term and long-term basis.

If you have any feedback at all, good or bad, definitely let us know! You can email us at feedback@clikfocus.com.



STEP 1: SERVER CAPACITY

The amount of server capacity that your website has in order to run is critical to how fast users can navigate through the website. If you are running lots of applications like custom API integrations while having lots of logged-in users on your site, this can take up a lot of capacity on the server.

It is important to know how much you need and plan for extra as your business grows and traffic levels fluctuate. If you are using shared hosting, you might want to consider another option to accommodate your growth and unique needs.

- ▶ **Managed hosting** - This type of hosting takes care of setup, deploy, maintenance and ongoing growth so you can spend more time on your business. Growing businesses typically need a lot of the freedom and customization that managed hosting provides.
- ▶ **Shared hosting** - This is the least expensive option and helpful for small businesses that don't have a lot of IT infrastructure or mission-critical IT needs.
- ▶ **Cloud hosting** - This is a relatively new option but is extremely flexible as it lets businesses scale instantly to meet traffic spikes as well as detailed performance analysis and monitoring.
- ▶ **Colocation hosting** - This helps companies who need control over their servers by providing space while the client is responsible for purchasing, managing, updating and configuring the physical hardware.
- ▶ **Dedicated hosting** - This option leases pre-configured equipment that allows for the flexibility to choose the operating system and configuration but the freedom of the provider handling hardware and network administration.

Hosting Options:

As a growing business, you need the most cost effective solution that adapts easily to your situation. If you need to change to accommodate your growth, here are the solutions we often recommend.

- ▶ **Rackspace** - They know how to handle any level of complexity when it comes to hosting and provide great options for large companies needing to scale.
- ▶ **Acquia** - They provide services solely configured for the Drupal CMS.
- ▶ **Amazon Web Services (AWS)** - They let you customize your capacity and are helpful for highly technical developers who need advanced tools and customization.

STEP 2: SERVING CONTENT QUICKLY

Users typically want a quick user experience more than they want a glamorous one with lots of images or fancy animations and features because speed allows them to accomplish their goals quicker.

(**Note:** We are not saying that animations are bad, but each animation should have a purpose and not decrease page load speed)

- ▶ **Caching** - This is the first step to improving page load speed because it shortens the amount of work needed to build content. Cached content is content that is pre-built and has been either cached in the browser or by a caching server.
 - **Anonymous users** - Varnish and Boost Module are great solutions, depending on your budget and growth stage. If you are entering the enterprise stage, Varnish might be a great solution, but for those new to advanced caching, Boost works with limited resources for those looking for an intermediate solution.
 - **Authenticated users** - Caching works differently for users who are logged in because the content is largely customized and only a few things can be cached. Drupal cache and MemCache help cater to this.
- ▶ **Load Balancing** - This is useful after you have one caching server set up and may need another. To make sure that traffic gets distributed evenly to both caching servers (or more if necessary), a load balancer works to evenly spread out traffic loads and prevent servers from crashing.
- ▶ **CDN** - This is a distributed system of servers that is configured with worldwide data centers and uses a server closest to the user's request. This can help speed things up and a 3rd party provider makes this a cost effective choice for sites with heavy traffic and mission-critical systems.

STEP 3: CODE DESIGN

This is a more technical aspect of performance, so I will cover it in with an overview. The point of this section is to make you aware of how your code design plays into performance and to ensure your development team uses best practices.

Front-End Development

Most of website performance happens on the front end portion of the site. After the browser sends the HTTP request for content and gets the info from the database, it's up to the browser to translate and combine all the data correctly. This is where issues happen and things start to slow down.

- ▶ **Weight and Time** - This depends on how much needs to be loaded and constructed or if you have things cached. Cached content is quicker to load as it is pre-built. Building takes time, depending on how much (weight) needs to be built.
- ▶ **Perceived performance** - You don't have to load everything all at once, but by loading heavier content last (like Javascript or other scripts), users are still satisfied because they are seeing progress and active feedback.

By constructing your front-end code in a way that allows it to load in pieces instead of all at once, users get active feedback and are a lot more patient because they see steady progress. There are a few more specific items to improve code design, but they follow the basic themes listed above.

IN REVIEW:

The great thing is that Drupal lets you customize every aspect of your site's performance because every situation is different. These are a couple of the issues we have seen and the solutions we typically suggest most often. If you are looking to implement or make some changes, we suggest talking to an experienced Drupal development team to find out what the best solution is for you.