



The ultimate  
**WordPress eCommerce**  
performance guide

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*Whether you're expecting an increase in traffic for the holidays (otherwise known as Q4) or just want to improve your site's performance, this ebook will help you improve your eCommerce website. We'll cover some of the basics, give you tricks to achieve near perfect performance, and tips for your high-traffic sites.*

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## First, the basics

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*While simple, these tips are beneficial for running a successful eCommerce site.*

Now, when we say basics, we really mean basics. These are things that hopefully you've already got set in place, but may have slipped your mind at some point. Even if you're already a pro, use this as a checklist to make sure you're ready to go! Luckily, if you've forgotten any of these steps, they're usually pretty easy to fix. Let's dive in!

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## Renew your hosting plan and domain name

When you're promoting your products at any time of the year, the last thing you need is for your website to go down (especially during a sale or traffic spike)! One silly-yet-common mistake that happens is forgetting to renew your hosting plan or domain name.

Before you space it off, dive into your domain authority or check in with your managed WordPress host — when does your subscription renew? Especially if you paid for a year of service during a sale (looking at you, Black Friday shoppers), make sure you're set to renew before the expiration date hits and that your credit card on file is up-to-date. Sure, it seems obvious, but it happens, so save yourself the stress and double check!

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## Install an SSL Certificate

Much like the hosting plan and domain names, hopefully you've already got this one squared away. But just in case you're spinning up a brand new eCommerce site, you'll want to install an [SSL certificate](#). Secure Sockets Layer (SSL), is a protocol used to secure and encrypt communication between computers. In other words, it helps keep sensitive information on your site incredibly secure (aka the little padlock next to a website address in your browser's URL bar). This includes things like passwords, credit card information, banking credentials — basically all the information your site stores that you and your users would want to remain safe. As an eCommerce store, it's critical to have an SSL certificate installed on your site. This ensures your customers their personal and billing information is safe and sound.

In the past, installing an SSL certificate was a bit of a juggling act. You'd have to buy it from a certificate authority, tell your [managed WordPress host](#) about it, share information with both parties, and then activate it. That's not the worst system in the world, but it's not the smoothest either. Here at Flywheel, we've decided to remove the hassle with our [Simple SSL](#) feature. And the best part? It's completely free! We offer free SSL certificates on all sites with all of our hosting packages. With a little help from our friends over at [Let's Encrypt](#), there's no need to go back and forth with a third-party provider. You can get world-class hosting and encryption all managed from one delightful dashboard.





### *Interested in a free SSL certificate?*

The easiest way to add Let's Encrypt's free SSL certificates to your WordPress site is by signing up with Flywheel. If you're hosting your site with us, Simple SSL is available at zero cost to you and can be installed with just a few quick clicks.

**[Learn more here!](#)**

## Check your site information

Go through all of your products — are the prices and descriptions correct? Are there any specs missing that people frequently ask about? And if you're doing or planning to do a big promotion, does the discount code work (both lowercase and uppercase versions)? Try to test everything you can to ensure you have a smooth checkout process. The better your user experience and the purchase process is, the more sales you can expect to make!

Let's use Black Friday (the biggest shopping day of the year!) as an example. Even if you're not necessarily doing a big promotion, you may want to double check that there isn't a bunch of traffic being directed to your site, especially if you're working on it. If you're planning on doing a major sale, you can guarantee an increase of new visitors to your site so make sure the information is correct and updated to ensure the best user experience.

Finally, be sure to cover your bases with things like return policies and promotion details. During huge traffic spikes, you truly never know who will stumble onto your site, so try to foresee any unique cases you won't be able to help such as foreign shoppers, if you only do domestic shipping. Make sure your site details update or you manually update them as things start disappearing from your inventory.

It's better to be upfront with those policies than to let people down after they've added to their cart, or worse, put in their credit card information. That makes for a very unpleasant user experience, and could result in some negative PR.

***“The better your user experience is, the more sales you can expect to make!”***





## Be prepared to run out of inventory

Speaking of user experience, what happens on your site when you run out of an item? Will the site inventory reflect what's actually available or update estimated shipping times? This is information your shoppers would definitely like to know prior to purchasing. Be transparent and clear with these situations and be prepared for the worst.

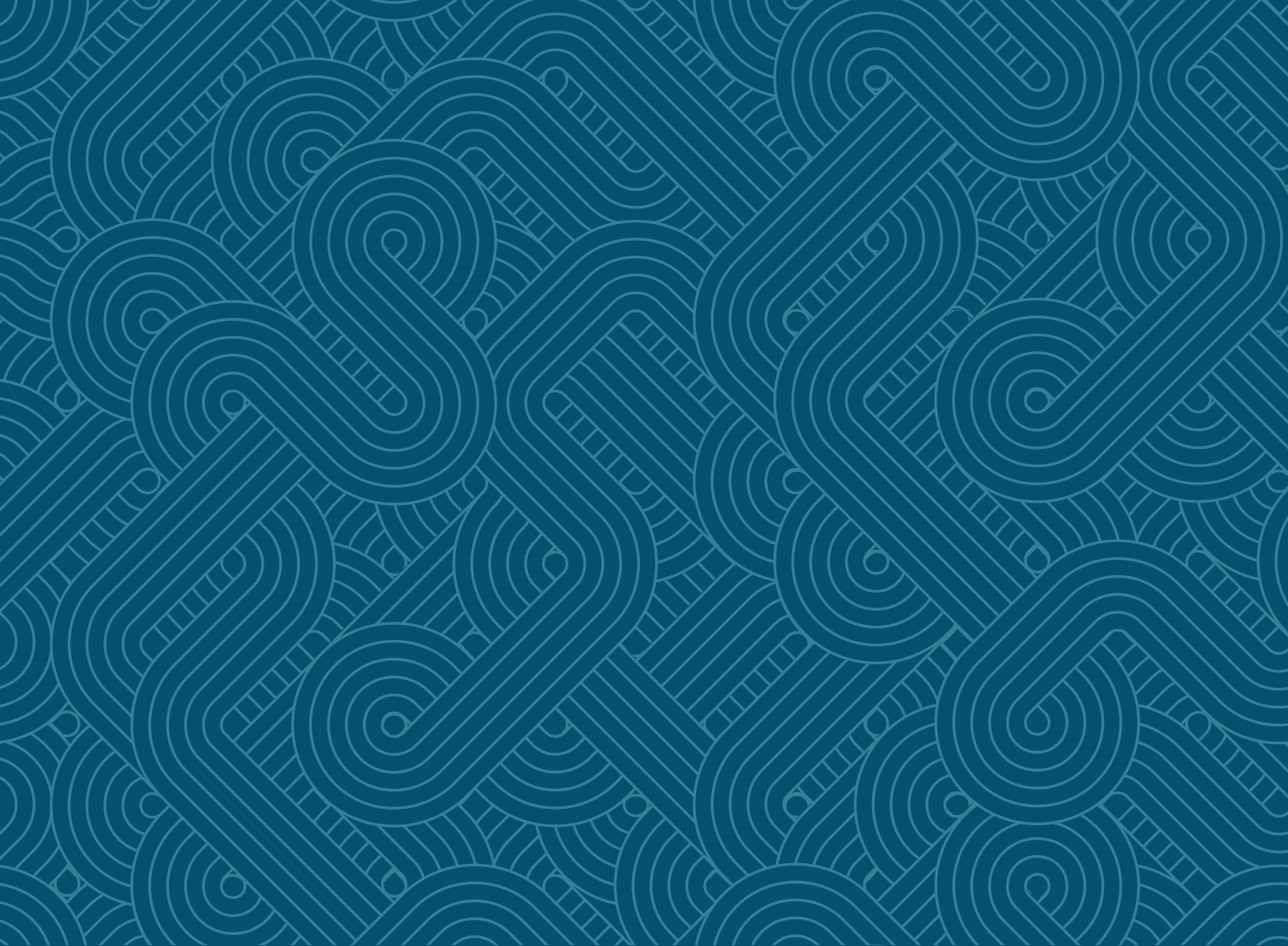
Optimize your WordPress site so you don't lose any visitors or potential customers. For example, if an item runs out, instead of an "Add to cart" option, you could replace it with an email opt-in to let the user know when the item is back in stock. Then, even if they can't purchase that specific item in the moment, you can bring them back to the site in the future AND you have their email address for future promotions. It's a win-win.

Let's face it: people won't always remember to come back on their own. But if you send them an email, it's like a personal, customized reminder in their inbox to check out your next round of products and get them back on your site.

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Now that we've covered the easy stuff, it's time to talk about performance.





## Achieve perfect performance

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*These seven tips will help you optimize your site for blazing fast load times.*

These days, if your site doesn't load within a couple seconds, many users will simply close the tab and never return. When they come to your site, they want information now, not several minutes from now. Plus, a site that loads slowly instantly loses credibility. Many users will start to wonder why it's slow. Instead of thinking about technical aspects behind managing an eCommerce site, they'll assume the worst, such as hackers, malware, or spammy advertisements. So while there's no such thing as "perfect performance," with a few simple tweaks to your site, you can get pretty dang close and drastically increase the number of users that stick around to purchase your awesome products!



## Eliminate clunky plugins

We know what you're thinking: Plugins add functionality to your WordPress site, and functionality is good, right? Not always.

When you're browsing the [WordPress Plugin Directory](#), it can be easy to get a little carried away and install every plugin under the sun, especially for eCommerce sites. While there are tons of great plugins that will help your sales flourish, there are some that can also bring performance issues and slow down your site.

Before you go installing things all willy-nilly, it's important to take a look at the plugin stats and information, and to ask yourself if you really need that plugin in the first place. Check when the plugin was last updated, if it works with the latest version of WordPress, and read through the documentation (if there is any). If it looks like a well-maintained plugin that accomplishes exactly what you need it to, it's probably a good option to install! If it's not a perfect solution, however, it's probably best to pass on that one and do a little more research.

*“Plugins add functionality to your site, and functionality is good, right? Not always.”*

While there's no magic number of plugins that you should stay under, it's recommended to only ever install and activate plugins that are totally necessary for your site. Not all plugins are bad, but the more plugins you have installed, the greater chance you'll have conflicts.

What about the plugins already installed on your site? There's actually a super easy way to tell which ones might be causing some performance losses — all you need is a plugin! (Yes, we see the irony in that, too.) It's called [P3 Profiler](#), and it'll create a performance report for your site that gives you some insight into what percentage of load time each plugin is responsible for. Having other plugin conflicts? [Here's how you can solve them.](#)

A good rule of thumb: Run a P3 Profiler test anytime you activate a new plugin. That'll help you discover any pesky plugins that are slowing down performance before you get too attached to them.





A super popular plugin that we recommend for your eCommerce site at Flywheel is [WooCommerce](#). WooCommerce is a very popular eCommerce plugin, but it can cause performance issues if you're not careful. Don't worry, we have a few handy recommendations to improve performance specifically for sites running WooCommerce!

## WooCommerce performance tips

### *Be strategic with WooCommerce cookies*

WooCommerce can leverage certain cookies for visitor tracking which are known to break caching, slowing down your visitor's experience. Ensuring that [WooCommerce's dynamic cookies](#) are not being placed on visitors by default can help prevent this from happening.

### *Clean up old orders*

By default WooCommerce will keep the information of every order it has ever processed, adding a lot of information to the database over time. The larger a database is, the slower requests will be to the database, so removing these older orders can help ensure site stability.

It's a good idea to archive orders from more than a fiscal year ago, exporting them from the database and turning them into an external file for safekeeping. Doing so will reduce the size of your database, which can help keep visitor requests to your website loading quickly.

### *Disable cart fragments*

Cart Fragments is how WooCommerce tracks the current number of items inside of your site's "mini cart" usually located in the top-corner of your website's pages. Cart Fragments specifically reaches out and updates the small number that appears on each page load.

We recommend disabling the small "counting" feature since it will hit the server with a request per-page, per-visitor, adding a fair amount of server strain simply for non-critical functionality. (The cart page will still display accurately.)

[Learn more about how to maximize WooCommerce and your WordPress site here!](#)





# Optimize your images

Compressing images reduces their size and takes the visitor less time to download. The result is faster loading of visual content on the page, giving a better user experience.

Images are often some of the largest files on a page, meaning they can be responsible for some of the longest delays in load time. When you compress images by reducing their size, this cuts down on the download time, resulting in faster loading of visual content which provides a better user experience.

As an eCommerce site, you're naturally going to have a lot of images to display — not much you can do about that. But what you can do is [optimize those images](#). By compressing the file sizes instead of just throwing any old picture on your site, you can drastically cut load time and keep your site performing at its best.

The best part is that image optimization is actually pretty easy to do and the best resources don't hurt your image quality! All you need are the right tools. The goal is to get your final image to the size you actually need (not something too large) and at a quality that works well. To help, we recommend these tools:

“*Compressing images reduces their size and takes the visitor less time to load*”

- [TinyPNG](#): A free browser-based tool for compressing PNG and JPEG images
- [ImageOptim](#): A free open-source app for compressing images
- [JPEGmini](#): A photo recompressing app for Mac and Windows
- [RIOT](#): A free Windows app for optimizing images

**A quick note:** If you upload a well-compressed image and your WordPress theme creates “duplicates” with different sizes (like smaller versions and thumbnails), then those new images will not be compressed. (Inconvenient, we know.) So to help with that problem, we recommend [EWWW Image Optimizer Cloud](#).



# Optimize your CSS and JavaScript

CSS and JavaScript files are written with lots of new lines, spaces, tabs, and comments to help the developer read what they are looking at and like images, your CSS and JavaScript can actually slow your site down if they aren't optimized.

If your site has a custom theme, you'll definitely want to make sure the code behind it is close to flawless. But even if you're using a premade WordPress theme, you may still want to look under the hood to see how clean everything looks or ask your managed WordPress host. First, let's start with CSS.

## **CSS**

The most important thing to do with your CSS is to compress it and remove any unused selectors. It's all about trimming the excess and cutting down on the amount of code that has to run when the page loads. Getting a good development workflow is key, especially if you're using a pre-processor like [Sass](#). To help with that, we recommend [Grunt](#), a JavaScript task runner that executes tasks for you while you're developing your site. There's even a plugin for it called `grunt-contrib-sass` that simply compiles all your Sass files into one, minifies it, and compresses it. Throw in the `grunt-contrib-watch` plugin on top of that, and it'll run the Sass task whenever you save a file. Easy-peasy!

If you're not much of a developer, don't lose sleep if you're not using the latest and greatest CSS methodology. Just try to follow a standard while working with CSS to avoid any duplication or huge file sizes. When in doubt, consult a developer or your WordPress host!

## **JAVASCRIPT**

The golden rules of optimizing JavaScript are simple: Serve as few JavaScript files as possible, minify them, and concatenate. Ideally, you'd concatenate ALL JavaScript files into one and then minify the heck out of it, but sometimes that's not possible. If you're the theme developer, we recommend minifying CSS and JavaScript as part of your development workflow. There are lots of great options, depending on your tools or builder.

Some plugins may block JavaScript files. So, don't stress about this process being perfect, just try to get close. And for those finicky files, you can always use the HTML attributes "async" and "defer" to load JavaScript files asynchronously or once the rest of the page loads. Again, don't lose sleep over this if you're not quite ready to dive into the JavaScript behind your site. And no matter what your experience level is, always make changes on a staging site or in a local environment so you don't accidentally bring down the live site!



# Cache your site

Every time a shopper visits a page or a post on your WordPress site, your site is built from the ground up. To do this, WordPress has to run a process to find the information, put it all together, and then display it to your shopper. This process can be one of the causes of a slow-loading site. That's why we recommend installing a caching solution!

*To get you started, here are some solutions we recommend:*

- [WP Rocket](#)
- [W3 Total Cache](#)
- [Sucuri Firewall](#)
- [FlyCache](#)

Each of these are caching plugins for your WordPress site, with the exception of FlyCache. [FlyCache](#) is Flywheel's proprietary caching engine, specifically designed to make WordPress sites fly. It's especially powerful because it works side-by-side with our Content Delivery Network (CDN) to serve up cached content from global points of presence (POP).

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# Use a theme optimized for speed

When you're shopping around for a WordPress theme for your website, it's important to pay special attention to speed optimization. Some of the best, most beautiful and impressive-looking themes are actually poorly coded and can slow your site down. While it may look pretty for the user, none of that matters if your site is loading slow while they're shopping.

It's typically better to go with a simple theme than a theme with complex layouts, flashy animations, and other unnecessary features. Don't forget: The most important part of your website is your user's experience so go with a simple theme and spruce it up with some WordPress plugins later!



# Have a reliable hosting company

No matter what you do to your site to boost performance, there's another aspect that you need to consider — your hosting company! As traffic hits your website, it pulls requests from your servers. If they aren't equipped to handle the number of people trying to load your site, it will seriously drop in load time or worse, completely crash. That's the last thing you want while trying to run a promotion. While the price tag of shared hosting always makes it seem like a bargain, it comes at a different cost: slow site speed, irregular performance, and frequent downtime.

The stress isn't worth it, especially when you have the ability to choose a managed WordPress host (like Flywheel!) that'll take care of a huge chunk of your WordPress performance woes. No matter when you're having problems, day or night, our [24/7 support team](#) will be there for you in a snap.



When it comes to hosting your eCommerce site, Flywheel provides servers and services that are tailored specifically for WordPress. (Hence the name, “managed WordPress host”)! This means your sites will experience the highest quality of performance and security because every server is optimized for a single CMS.

With a managed WordPress host, you get additional features beyond just optimized and dedicated servers. Nightly backups, managed WordPress upgrades, and so many more features that help you manage your sites, or rather, help Flywheel manage them for you!

Learn more about how we'll keep your eCommerce site blazing fast [here!](#)

**These tips will help you boost performance on your site and keep it running blazing fast! But, if you're running an eCommerce site that gets a lot of traffic (like millions of visitors) or is crazy busy during the holiday season, sometimes you need some extra boosts. If you're expecting some record numbers of traffic, keep reading for our more advanced high-traffic techniques!**





## High-traffic tips

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*If your site gets lots of traffic  
(like millions of visitors), these tips will  
keep it running faster than ever!*

If you've followed all of the tips up until this point, you probably have a pretty speedy site already. But if you're looking for a few extra ways to ensure that it's always speedy for your shoppers, try these tricks!

## Use a Content Delivery Network (CDN)

Let's say you have customers all over the world that buy your products. If your site lives on a server in New York, and someone from Australia goes to pull it up, it'll take a smidge longer for the site to load simply because of the physical distance between the user and the server. That's where a Content Delivery Network (CDN) comes in to speed things up.

A CDN is a network of servers that serves up your site and its assets from different locations around the world based on where the user is located. The idea is that users will hit the server closest to them, cutting down the physical distance between them and your site content, and in turn, decreases load time. So, instead of waiting on a server halfway across the world, your users will be able to quickly load your site and buy your products!

*“Instead of waiting on a server halfway around the world, your users will be able to quickly load your site and buy your products!”*

To set up a CDN, some popular options include:

- [CDN powered by Fastly](#)
- Amazon Web Services
- CloudFlare

At Flywheel, we offer free CDN powered by Fastly to keep your site (and its content) super speedy. With CDN powered by Fastly, you know you're getting the fastest page loads which means your customers can spend more time shopping and less time waiting for a page to load.



# Cache everything you can

We're not exaggerating with that headline — taking advantage of caching on both the server-side and client-side can result in serious performance boosts. Basically, when a user loads your site for the first time, the browser can store (or cache) the contents of your site. This includes HTML files, CSS stylesheets, images, and any other assets your site may contain. That's beneficial because the next time that same user visits your site, the browser will be able to load the content without having to retrieve everything from the server again, keeping load time super fast!

Server-side caching is basically the same idea, but the cache takes place on the server level instead of the browser. This can save a lot of time loading content because the server doesn't have to use PHP to communicate to the database every time a page needs to load. This is where you really start to save time.

To set up server-side caching on your site, in true WordPress form, all it takes is a plugin: [W3 Total Cache](#). Of course, there are other plugins that would also work, but this is one of the most common options out there. Plugins like this will allow you to control server-side caching on your site, which will help you deliver content to your users super quickly.

## ***ONE THING TO NOTE***

While using plugins like W3 Total Cache to improve server-side caching can be effective, they can take a lot of configuration and aren't the fastest server-side solution out there. Because WordPress plugins are PHP-based, it still takes time for the server to execute PHP-based caching code.

When you set up caching for your eCommerce site, you just have to pay attention to your settings. Some pages (such as cart and checkout pages) need cookies to work, and those can't be cached. Because of this, some plugins, including WooCommerce, will automatically disable server-side caching. It's not always very apparent when plugins or themes disable caching, but you can always reach out to your hosting provider and ask them to force cache the site (minus those pages that need cookies). At Flywheel, we have smart caching settings that handles this process for all of our customers.

If you're hosted on Flywheel, you don't need to worry about caching plugins at all! We automatically take care of server-side caching for you using custom Varnish settings our team of WordPress experts has fine-tuned and perfected over the years. This means your site will be equipped with one of the fastest caching techniques available, and you don't even have to worry about setting any of it up! Plus, Flywheel servers are configured to automatically flush the cache anytime files change and anytime a post or page is updated. This way, you never have to worry about your users seeing outdated content.

[And that leads us to our last point...](#)





# Work with your hosting company to ensure success

If you still have any questions, concerns, or just want a little advice, your WordPress hosting company should be able to help you out. Here at Flywheel, we love working with our customers to ensure their sites are prepped for their biggest sales to make sure everything stays online and running blazing fast! In fact, we have an entire team dedicated to working one-on-one with customers when these situations arise.

**Every year during the holidays, people rush to the website of South Georgia Pecan Co. to purchase local Georgia nuts for holiday baking and gifts. They started prepping their website for the surge of holiday traffic in July, to ensure they had plenty of time to get everything prepared. We worked closely with the agency that created their website to ensure everything was up to date, fine-tuned their caching to allow optimal performance, and also ensured the site had plenty of resources and space on their hardware to handle the traffic spike.**

Prepping your site for a sale? Expecting a traffic spike? Looking for advice on how to better your performance? We're here to work with you, lend a hand, and share some of our expertise to make sure your eCommerce site is ready for anything!

This holiday season, we want your site to be successful, and we'd love to be a part of it. Try Flywheel today to learn how we can help you scale your business.



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# Flywheel for eCommerce sites

Flywheel is a delightful platform that empowers site owners and creatives to focus on what they do best — building beautiful, functional sites for themselves or for their clients. We make it a breeze to create and develop WordPress sites, handle hosting, manage projects, and ultimately scale your eCommerce business. Stop wasting time on server management, security plugins, caching, and all those other boring, repetitive tasks that take your focus away from growing your business and jeopardize your relationship with clients. Get Flywheel and get back to doing what you love.

[Migrate your site](#) today and see how it could perform on Flywheel.

## HAVE QUESTIONS?

[Chat with an expert!](#)



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