

Case Study



Cloud Computing
2nd Generation Intel® Xeon® Scalable Processors

Kinsta's WordPress Customers Run Up to 200 Percent Faster on Google Cloud C2 Instances

Cloud-optimized servers with 2nd Gen Intel Xeon Scalable processors offer high performance web serving and easy scalability

Kinsta on Google Cloud highlights:

- Google Cloud C2 instances
- 2nd Gen Intel® Xeon® Scalable Processors



Google Cloud

KINSTA

Executive Summary

WordPress runs nearly 40 percent of the websites on Earth. With a 63.8 percent market share, it is the leading content management system (CMS) used around the world today.¹ So, there are a lot of companies whose businesses revolve around hosting WordPress installations. These organizations offer managed WordPress installations with a range of security, availability, and performance options, with customers paying premiums to get the faster services.

Companies relying on their websites 24/7 for global presence, high-quality customer care, rapid sales, and other important services recognize the need for responsive websites and customer service. Price, page load speeds, and trouble response are often the differentiating features amongst hosting providers.

Kinsta provides managed WordPress hosting, with a reputation for fast page loads, customer service, and reliability—all business-critical capabilities, but especially to e-commerce. All of Kinsta's customers, irrespective of their subscription levels, are hosted on high-performance servers on [Google Cloud](#) powered by 2nd Gen Intel® Xeon® Platinum processors, because of their scalability, speed, and reliability.

Challenge

[WordPress](#) is a community-supported web application with core software that can be extended through more than 50,000 independently developed themes and plugins to create any type of website a company desires. From a simple blog site to large forums, professional artist portfolios, and large electronic commerce operations with thousands of products, services, and downloads, WordPress can provide a foundation for business operations.

“With WordPress, the key metric is single core performance,” said Daniel Pataki, CTO of Kinsta. “How fast a single core can process the tasks it has to do to serve up the next results is what drives site responsiveness. However, while not compute-intensive, some processes can slow down a site significantly.”

E-commerce businesses are especially sensitive to server response. If there is too much delay throughout the transaction, customers simply move on to another seller. E-tailers stand to lose precious revenue and, potentially, customer loyalty. Latency becomes a serious concern during high-traffic periods such as special offers, seasonal sales, and large events. This is a time when a hosting provider's infrastructure needs to scale quickly, easily, and automatically to meet the demand.

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"We have customers that run their commercials at the Superbowl and other large-scale events," continued Pataki. "If you get that kind of visibility, there's going to be a sudden influx of traffic during the event, and we have to make sure the websites run smoothly—for all clients."

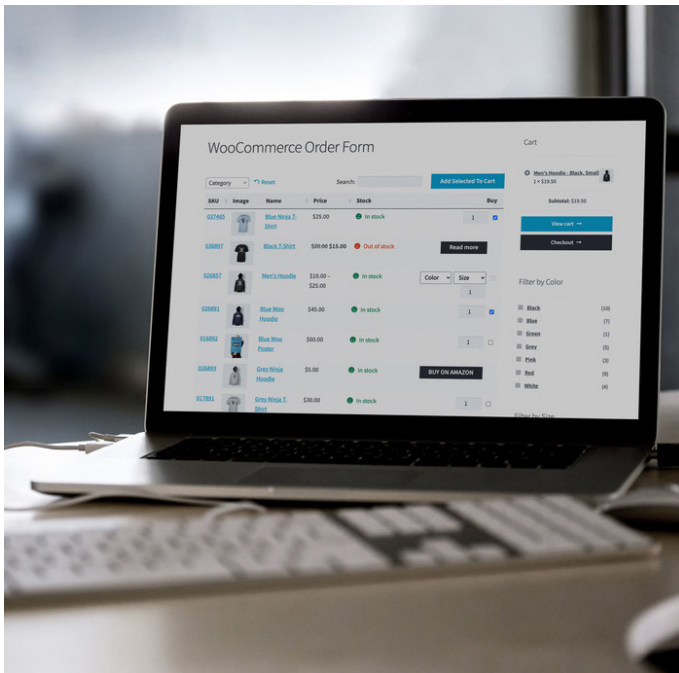
Kinsta considers its services premium offerings in the market. They originally ran their business on Google Cloud N1 instances. But to maintain the level of services they promise to customers, they needed to ensure their sites ran on the fastest offerings on Google Cloud.

Solution

"The reason we initially went with Google Cloud is their size, their speed, and their reliability," explained Pataki. "When we looked at upgrading our systems late last year, we were running on their N1 machines. For us, with the nature of WordPress, a higher CPU speed is better. Their C2 configurations, with 2nd Gen Intel Xeon Scalable processors, offered high single-threaded performance."

Google Cloud C2 instances are compute-optimized platforms that can be used for intensive computing. They can burst to 3.8 GHz turbo speed across all cores.² For Kinsta, the business depends on the efficiency and scalability of their hosting infrastructure, while maintaining a high level of performance, support, and reliability. By migrating to the C2 instances, they would have the performance they desired and be able to scale easily.

Additionally, security was a key concern. Kinsta is able to ensure segregation among its customers with complete isolation between WordPress installations. By upgrading to the C2 machines, the company solved many challenges, while improving overall page load performance for customers. But migrating an entire customer base from one configuration to another is a large undertaking, even for a seasoned hosting provider.



Barn2 is a Kinsta customer taking advantage of Google's C2 instances based on Intel Xeon Scalable processors for the e-commerce plugins they develop for WordPress.

"The cost to migrate from N1 to C2 was not trivial," explained Pataki. "We were already known as one of the fastest hosts in the managed WordPress space. But our long-term strategy was to maintain our leadership position. With these machines being so powerful, we could put all our clients on one of the best machines available in the market. Anyone from a hobbyist blogger to a large enterprise or electronic commerce business can tap into the performance benefits of these top-tier platforms."

Result

"With the C2 instances, we can put a lot more sites on the same virtual machine," commented Brian Li, Kinsta's Website Content Manager. "We're able to scale back the number of instances we need, so it's more cost-efficient for us. Plus, they actually boost the performance of our customers' WordPress sites; they are experiencing faster page loads than before. It's really a win-win for both Kinsta and our customers."

"In our internal benchmarks," added Pataki, "after we migrated to the C2 platforms, we actually saw up to a 200 percent performance³ increase for many of our clients."

The 200 percent performance improvements extend beyond the customers to benefit Kinsta's site managers as well, according to Li. The backend management and maintenance of the servers and the WordPress sites run better. Li says that people really notice the speed difference when they come from other WordPress hosts.

"And by providing these clients with some of the best possible hardware, along with our system administration team, who is around all day, every single day, they're able to focus on managing their businesses during these huge traffic spikes," concluded Pataki.

Kinsta customers are echoing these sentiments. [Barn2](#), a leading Kinsta customer, is one of those independent developers that offers plugins for WordPress. They focus on e-commerce plugins for the [WooCommerce](#) plugin. They chose Kinsta because of performance, service, and reliability as a managed WordPress host and to simplify their website management while improving responsiveness on their e-commerce site.

"The reason to use a managed host is because you want your website to just run smoothly, where the hosting provider takes care of anything server-wise," explained Katie Keith, Barn2 Operations Manager. "We didn't want to be worrying about the technical side of the server management."

Kinsta helped them migrate their sites from a previous host that also specialized in WordPress, but where they were experiencing long page load delays in backend management of their and their customers' websites.

"You can cover up bad hosting with good caching," she added. "But it all becomes apparent in the administration side because there's no caching there. It was time for a new provider."

With the C2 instances and 2nd Gen Intel Xeon processors, they now have the performance and stability they need for their customers' sites and their own e-commerce operation. "We noticed that back-end administration access went from about 20 seconds on our old host to two seconds when we moved to Kinsta," concluded Keith.

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Some hosting providers rely on Kinsta's performance, because they guarantee a level of responsiveness to their own customers that the Kinsta platform can deliver. [Digital Skyrocket](#) is a web design and SEO optimization company that focuses on helping small businesses rank well in competitive local markets. It is another Kinsta customer taking advantage of Google's C2 instances based on Intel Xeon Scalable processors.

"We have a page load speed guarantee," said Chad Barnes, CMO and founder of Digital Skyrocket. "We tell customers migrating their sites to us that it will be faster with us than wherever it was before, or we'll refund your money. So far, we haven't had to do that."

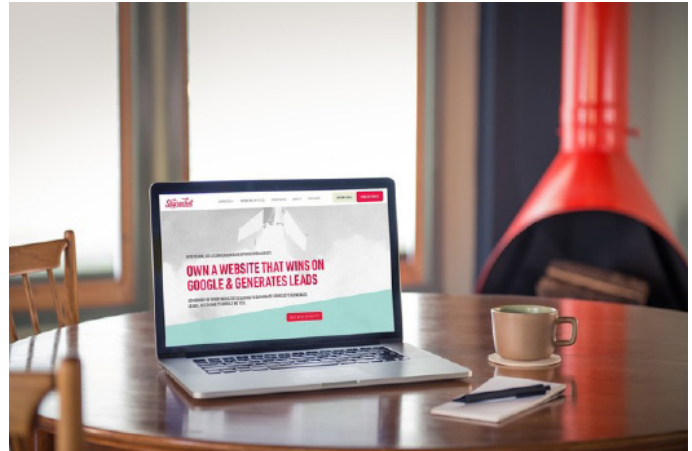
Like Barn2, Digital Skyrocket also used a host that eventually could not continue to support them with the speed and reliability they guaranteed their customers. They turned to Kinsta.

"In our search for a new host, we considered where we could go that doesn't sacrifice the support quality we want and can give us the speed that we're guaranteeing," added Barnes.

They migrated over 100 sites to Kinsta. For one of Digital Skyrocket's customers, their website ran nine seconds faster on the new platform, according to Barnes. "That's what really convinced us that we were on the right track. But it was also that Kinsta ran on Google and Intel. Those are two companies that do innovative work," he concluded.

Solution Summary

WordPress runs best on processors with high single-core performance. By upgrading hosting services from N1 to C2 instances on Google Cloud, Kinsta's managed WordPress hosting was able to offer all their customers up to 200 percent faster page loads. The faster servers run on 2nd Gen Intel Xeon Scalable processors with high core clock speeds. The new C2 instances offered higher performance, which allowed them to easily scale, running more customers on fewer systems, and allowed them to maintain a leadership position in the market.



Digital Skyrocket takes advantage of Kinsta's performance to offer their own customers a guaranteed level of responsiveness.

Where to Get More Information

Learn more about [Kinsta](#).

Find out how just much of a [difference Google Cloud C2 instances make for Kinsta's customers](#).

Find out more about [Google Cloud](#).

Explore the capabilities of the [2nd Generation Intel Xeon Scalable processors](#) with integrated Intel Deep Learning Boost capabilities for accelerated AI inferencing.

Solution Ingredients

- Google Cloud C2 instances
- 2nd Gen Intel Xeon Scalable Processors



¹ Source: https://w3techs.com/technologies/overview/content_management

² Source: <https://cloud.google.com/compute/docs/machine-types>

³ Source: <https://kinsta.com/blog/boosting-wordpress-performance/>

Performance varies by use, configuration and other factors. Learn more at www.Intel.com/PerformanceIndex.

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