



FLYWHEEL

| *Infrastructure*

Flywheel's infrastructure is built to scale with your site

Flywheel was founded in 2012 on a mission to create an exceptional platform to help creatives do their best work. As the leading WordPress hosting provider for thousands of the world's top creative businesses, we've created a top-of-the-line infrastructure to scale with your site, maintain an impressive 99.99% uptime, and put your mind at ease.

At a glance

1. LOAD BALANCING

We'll distribute incoming requests to your site over a cluster of servers, ensuring the fastest load times and reliable uptime.

2. CONTAINER ENGINE

We use container technology to ensure your site is fully redundant, ready to scale, and can heal itself in real-time.

3. FLYWHEEL SERVICES

Our tools are completely decoupled from the rest of our infrastructure, meaning one little bug can't take the whole infrastructure down.

4. DATABASE

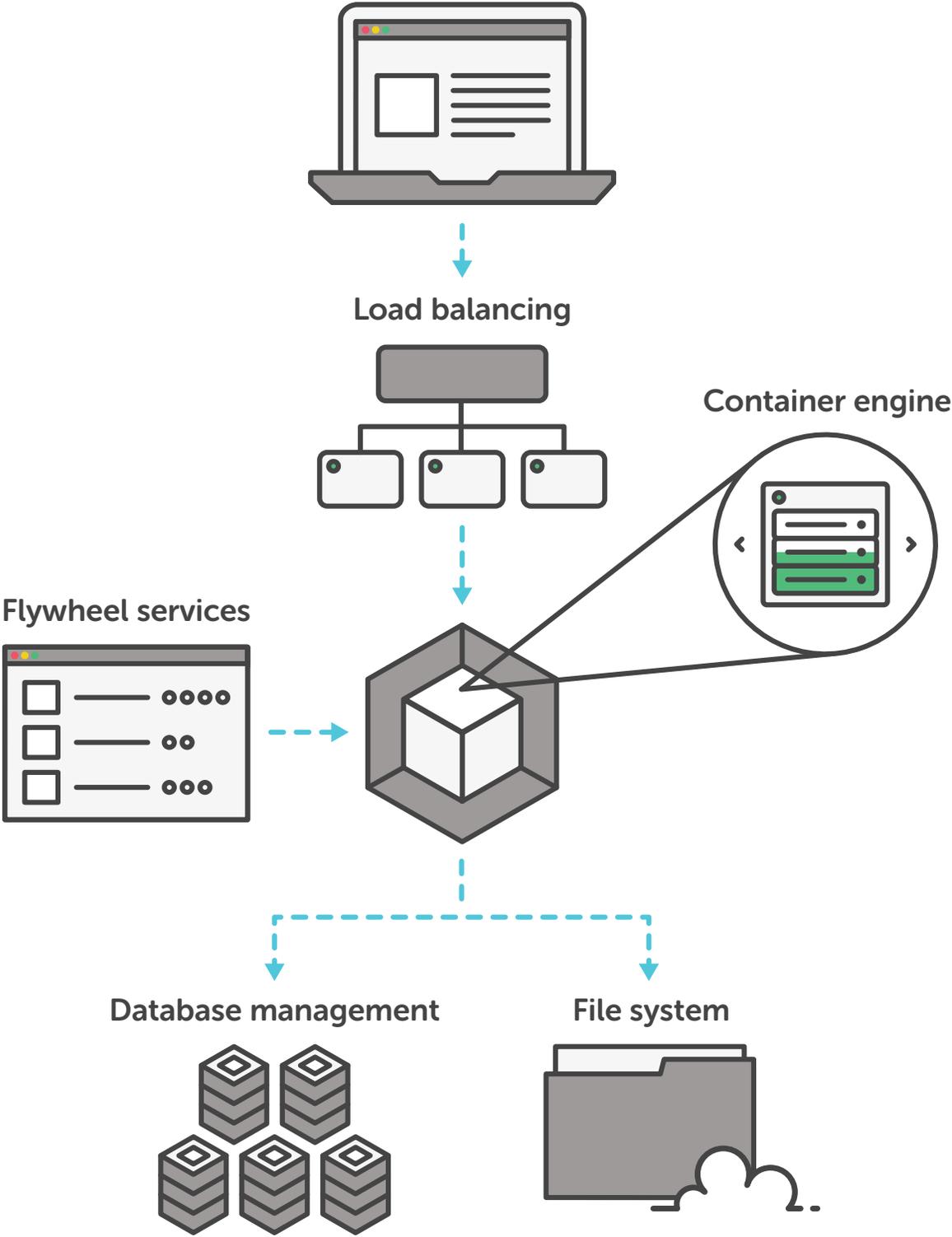
Our database cluster can scale with your site, giving you the confidence to grow your traffic without worrying about performance.

5. FILE SYSTEM

We separate your files from the containers that power your site, so issues with those elements don't impact your site's content.



Infrastructure diagram



Infrastructure details

Flywheel's infrastructure was designed to be fully redundant, able to scale with your site, and ready to handle any and every traffic surge, no matter how many requests hit the server per second. In order to do this, we've built a system powered by the Google Cloud Platform (GCP) that's truly industry-leading in terms of structure and reliability.

There are six main elements that make up Flywheel's infrastructure. These include:

- **Load balancing**
- **A container engine**
- **The Flywheel dashboard**
- **Flywheel tools and services**
- **Database**
- **File system**

LOAD BALANCING

Flywheel uses load balancers to manage incoming traffic and grant access to the containers needed to operate your WordPress site. (For more details about containers, see the "Container engine" section.) Our load balancers are designed to automatically scale as traffic increases and distribute the incoming requests, which allows your load time to be blazing fast no matter how much traffic the servers are juggling. The load balancers also identify the health of a container to ensure traffic is only directed at servers that are functioning flawlessly.

CONTAINER ENGINE

We use container technology powered by Google Kubernetes Engine (GKE) to create multiple instances of your WordPress site across servers (also called nodes). Each node has a separate container for the caching, web server, and PHP layer, meaning if one container has trouble, the load balancers redirect to a fully-functioning container instead. This redundancy guarantees your site an uptime of 99.99% and means you can scale without ever worrying about downtime.



This system also allows the Flywheel engineering team to quickly update the individual layers of the containers. For example, if a new version of PHP is available, the load balancer can start directing to updated containers and eliminate the old ones, all while your site stays online.

Note: These containers do not include your individual site data or content, which is why the load balancers are able to point to different nodes at any given time. For more information on your specific site data, see the "File system" section.

THE FLYWHEEL DASHBOARD

Flywheel's customer dashboard is a separate entity from our hosting infrastructure. This gives us the ability to update the customer dashboard without impacting customer sites, and likewise update our infrastructure without impacting the customer dashboard.

FLYWHEEL TOOLS AND SERVICES

Flywheel services include the internal tools that our team uses to manage our application and infrastructure. Like the Flywheel dashboard, all Flywheel tools and services are separate from our infrastructure, allowing the same freedom to make changes with zero impact on customer sites and processes.

DATABASE CLUSTER

Like our GKE container technology, Flywheel uses database clusters to create a redundant system that's able to scale with customer sites. These clusters include multiple instances of Cloud SQL and allow you to grow your site with confidence.

FILE SYSTEM

We use a network file system powered by Google Cloud Storage to store all individual site data and content. By keeping this information separate from the containers that power the site, the content can always be accessed regardless of which containers are being loaded for visitors.



Still have questions?

We're constantly evaluating our processes, building new partnerships, and updating our systems to execute industry-leading infrastructure solutions.

If you would like to request more information about Flywheel's infrastructure, feel free to reach out to your Account Manager or email one of our experts!

They'd be happy to provide additional details or reports so you can feel confident in our systems and policies.

CONTACT

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Or, sign up at getflywheel.com



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