

How Zephyr Created One of the Fastest CMSs for Web Design Agencies

While cutting the number of support tickets by 75%



Challenge: Zephyr is a cloud-based content management system for web design agencies. They required a CDN platform with extended image processing capabilities to help their clients easily create and deliver websites that follow the best web performance practices.

Results:



Number of support tickets

75% Fewer



Average page load time

100 Milliseconds



Bandwidth usage

2x Less

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About Zephyr



Zephyr is a cloud-based content management system built exclusively for web design and marketing agencies. It allows its users to create multiple powerful websites for their clients with ease. Today, there are over 300 websites powered by Zephyr.

The platform is built on Microsoft Azure, and its infrastructure consists of microservices. As an entirely cloud-based solution, Zephyr puts the highest priority on the actual platform's speed and the speed of deployment of web sites.



— Zephyr was built inside of an agency, so we felt various levels of pain working with different platforms. We wanted to build a platform that served our needs as an agency, as opposed to DIY website building platforms that don't really meet agencies' needs in the best way.



Michael Reynolds,
Zephyr President/CEO

Zephyr's challenge: Outsmart the competition by creating the fastest CMS on the market

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Zephyr works in a relatively specific segment: they offer their CMS to web design and marketing agencies only. But regardless of the segment, the CMS market is a high-density one. There are plenty of solutions, from open-source to six-figure enterprise-level platforms. To stand out, Zephyr had to pay close attention to its clients' needs, including fast deployment and optimal web performance.

Instead of competing on the number of features, Zephyr focused on providing deployment efficiency and enabling their clients to make web design a breeze. They were looking for a technological partner that would ensure ultimate infrastructure performance and speed.

The biggest challenge for Zephyr was images. Proper image handling is a nuanced task, but people who manage websites often don't know all the fine points. They get the wrong sizing, choose the incorrect formats, and fail to compress images efficiently. For example, they might take large raw photos taken on their digital SLR cameras and post them directly on the website, which dramatically hurts the overall performance.

Zephyr strived to take these struggles away from their end users. They wanted agencies to stop overthinking websites and focus on their core value instead, which would also help Zephyr stand out in the crowded CMS market.

Images were the biggest challenge for Zephyr:

WRONG SIZING

RAW PHOTOS

HUGE FILES

BAD COMPRESSION

INCORRECT FORMATS

Goal: To adopt a smart CDN infrastructure that automates media handling

In its early days, Zephyr tried some different CDNs and server buckets, so each server and each website held its own assets. It turned out to be inefficient and not scalable enough, so they decided to go to a distributed system and become a truly cloud-based platform. That's why they were looking for a CDN partner to help them build a reliable product and scale its growth.

The Zephyr team was looking for these elements:

1 — Uptime reliability

Since Zephyr was to become a fully cloud-based CMS, having a reliable media handling solution was crucial for its performance.

3 — Image manipulation options

Zephyr required pre-processing options to be able to edit and manipulate files on the fly. They wanted their CMS to free up their customers from addressing image-related issues, such as size, shape, color, format, etc.

2 — Responsive images

Mobile devices make up a significant share of the market, so it was essential to be able to automatically create responsive image sets to fit each screen without extra effort.

4 — Simple integration

It was important for the Zephyr team to have comprehensive documentation on the solution and work within a comfortable tech stack (which was mostly JavaScript).

Solution: Uploadcare Media Pipeline

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With prior experience working within a web design agency, the Zephyr team had a clear vision of the perfect solution for a purpose-built CMS. Uploadcare met all their requirements and proposed flexible pricing terms, so Zephyr ran with the solution.

What the Uploadcare-based part looks like for Zephyr

Zephyr CMS has a microservice-based infrastructure, meaning it consists of building blocks that handle the specific tasks. Uploadcare works as one of these blocks and covers file uploading, processing, and delivery.

All media assets go to Uploadcare, where they are directed to separate projects linked to client websites.

Bandwidth
usage

≈ 200 GB/month

Storage

≈ 70 GB/month

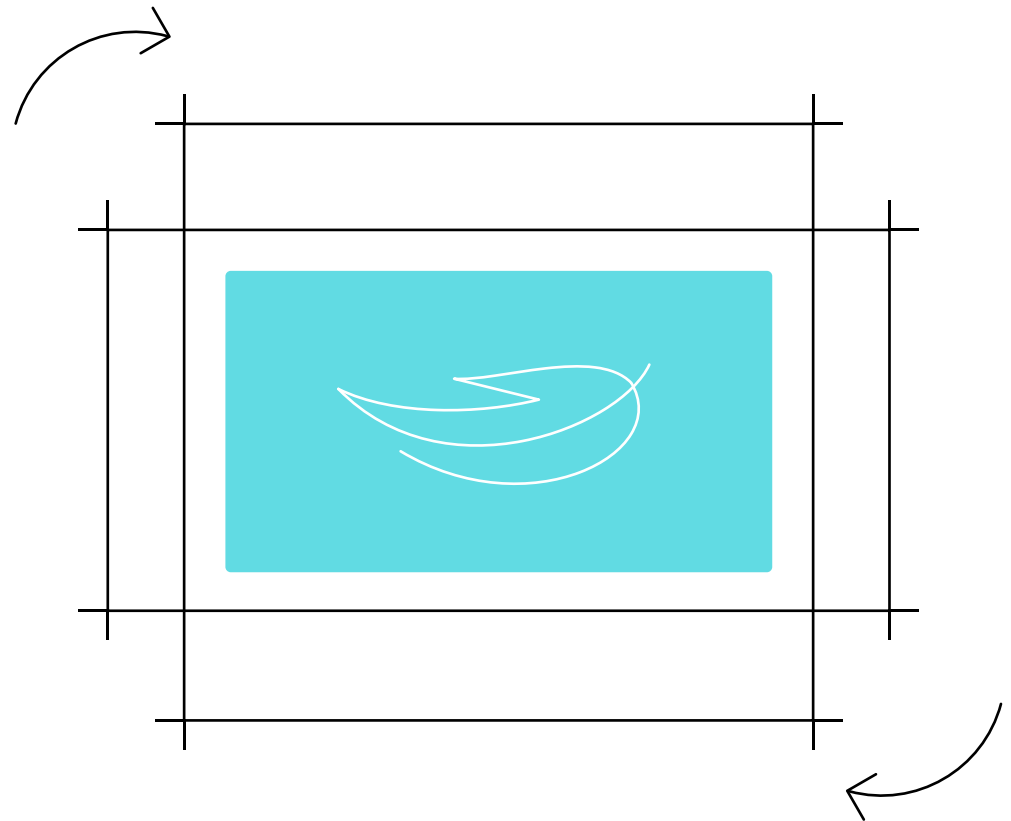
Websites using
Zephyr CMS

300+

The value the Uploadcare pipeline brought to Zephyr CMS

— Optimized images in a snap

Uploadcare enables Zephyr to relieve its end users of the need for painful manual image tweaking. The CMS automatically turns all the user-generated media assets into high-quality, lightweight files in the right format. End users don't even notice this is happening: they upload images, choose the images they want to use, and Uploadcare does the rest on the fly.



— Those simple image manipulations are our heaviest used feature, mostly because we built them everywhere in our platform to make sure everything is falling into best practices with the web. Everything loads so much faster on mobile devices.



Sam McKinney,
Director of Agency Services at Zephyr

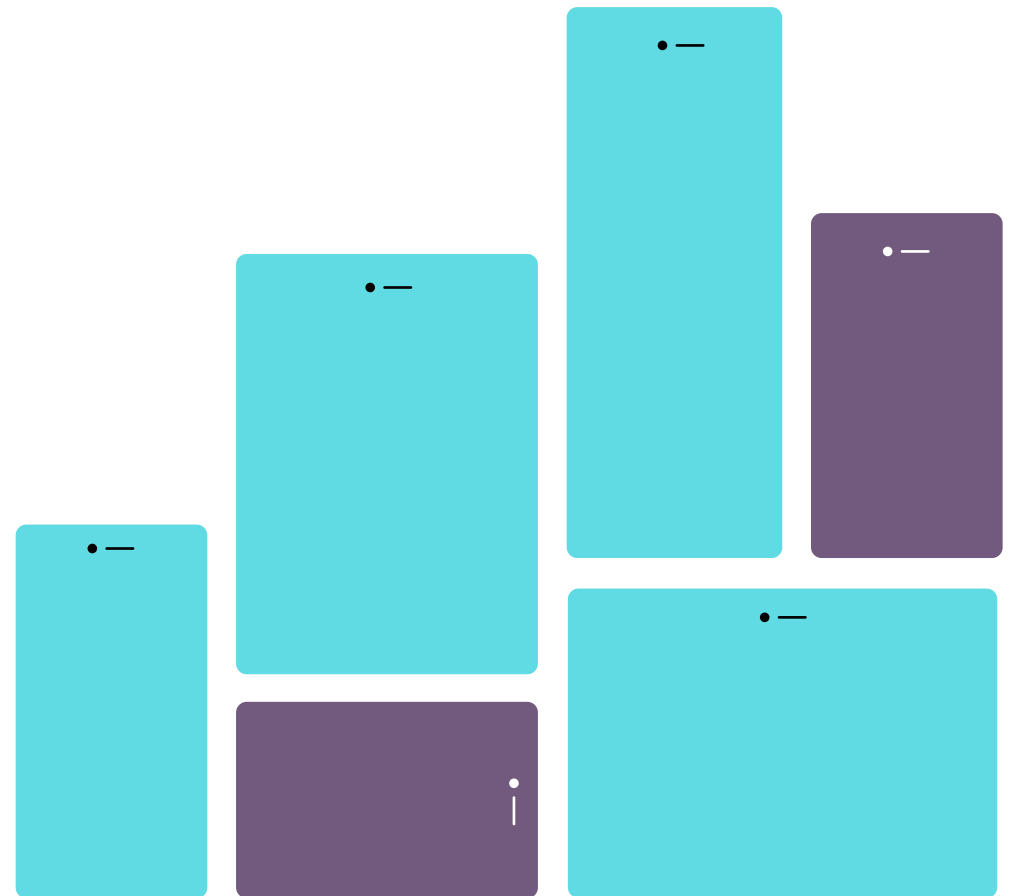
The value the Uploadcare pipeline brought to Zephyr CMS

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— Automated responsiveness

Mobile is a huge part of traffic today, so that was a huge area of focus for Zephyr. Thanks to Uploadcare, the CMS automatically serves images that fit any screen: they're resized automatically and look good on both smartphones and larger devices. Since the images are tailored to each user's context, it results in an excellent user experience for websites built with Zephyr.



— We really wanted something that could look at the device that is requesting that web page and then adjust all of the assets that we serve. This way, we get the absolute most speed we can when loading our web pages across mobile devices.



Sam McKinney,
Director of Agency Services at Zephyr

Results: More client-centered product, less pressure on the support team

Uploadcare Image CDN automated and streamlined Zephyr's media pipeline, so the best web performance and file handling practices are built right into the platform. That resulted in:



75% fewer support tickets



100 ms page load time



2x less bandwidth usage

Enhanced infrastructure reliability resulted in 75% fewer support tickets

— Hey, I uploaded this image, and it's breaking my website because it's taking over the homepage/slowing down my site.

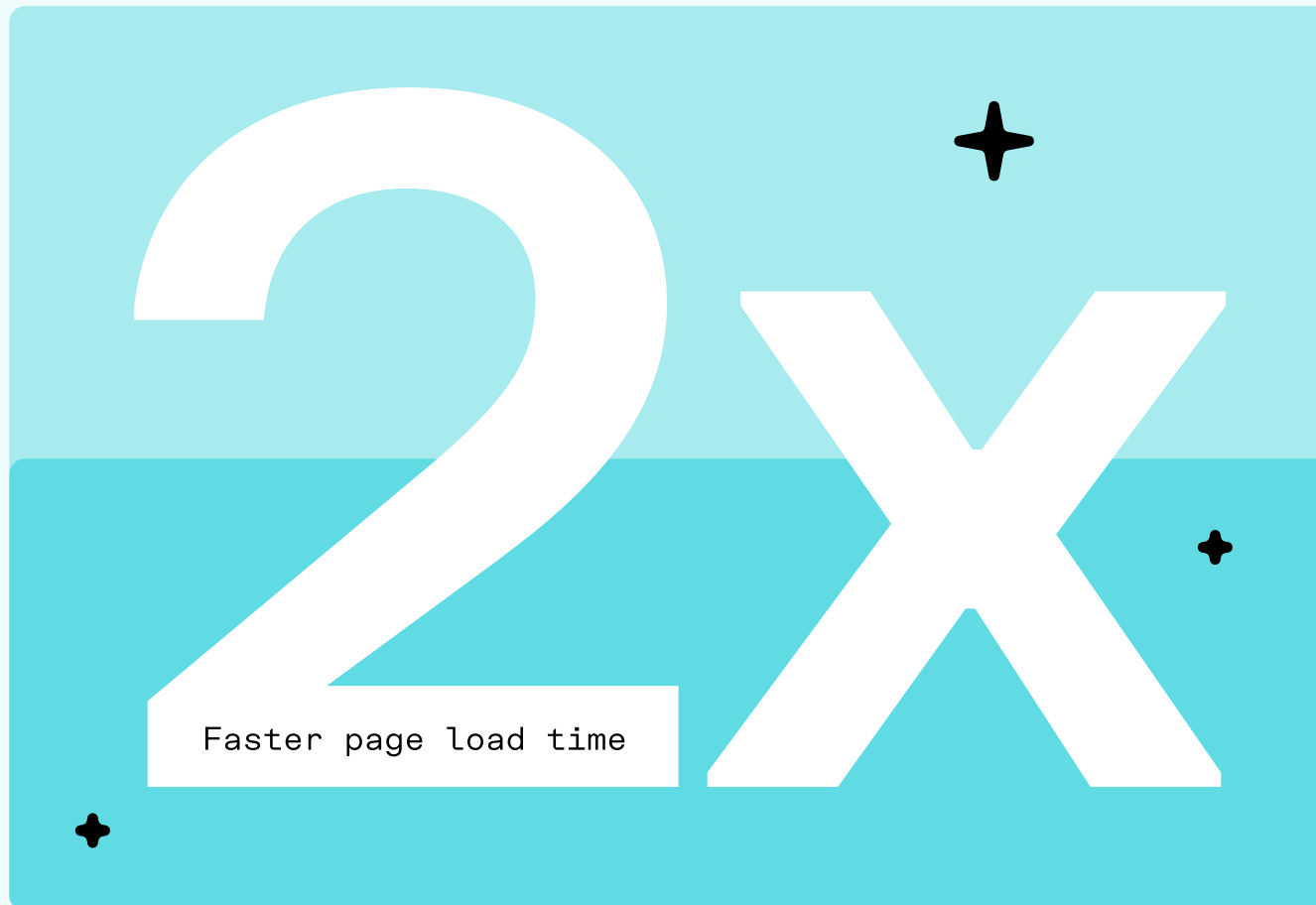
Zephyr uses a ticketing system for support to handle customer care. In the early days, almost half of the support tickets for agencies were related to images: wrong sizes, wrong dimensions, slowing down the website, and other problems.

Uploadcare helped Zephyr build a CMS that has guardrails for clients. They programmatically put in best practices for images, so they don't have to worry about

any technical issues or layout sizes. Over four years after implementing Uploadcare as a core feature set of the platform, the flow of the image-related issues dramatically decreased—the team has 50 to 75% less support load.

Having eliminated image issues for themselves, Zephyr also eliminated much of the support load for marketing agencies that use the CMS. They spend significantly less time troubleshooting and explaining to the clients that they need to resize their 6,000 pixel-wide image to be shown on a normal human device. Now, images are something they never have to worry about, and their end users don't have to worry about them either.

Accelerated media pipeline brought 2x faster page load times



One of the most prominent benefits of using Uploadcare as part of a CMS infrastructure is speedy content delivery. Zephyr made their web pages lose some weight: they scale everything down and resize everything on the fly.

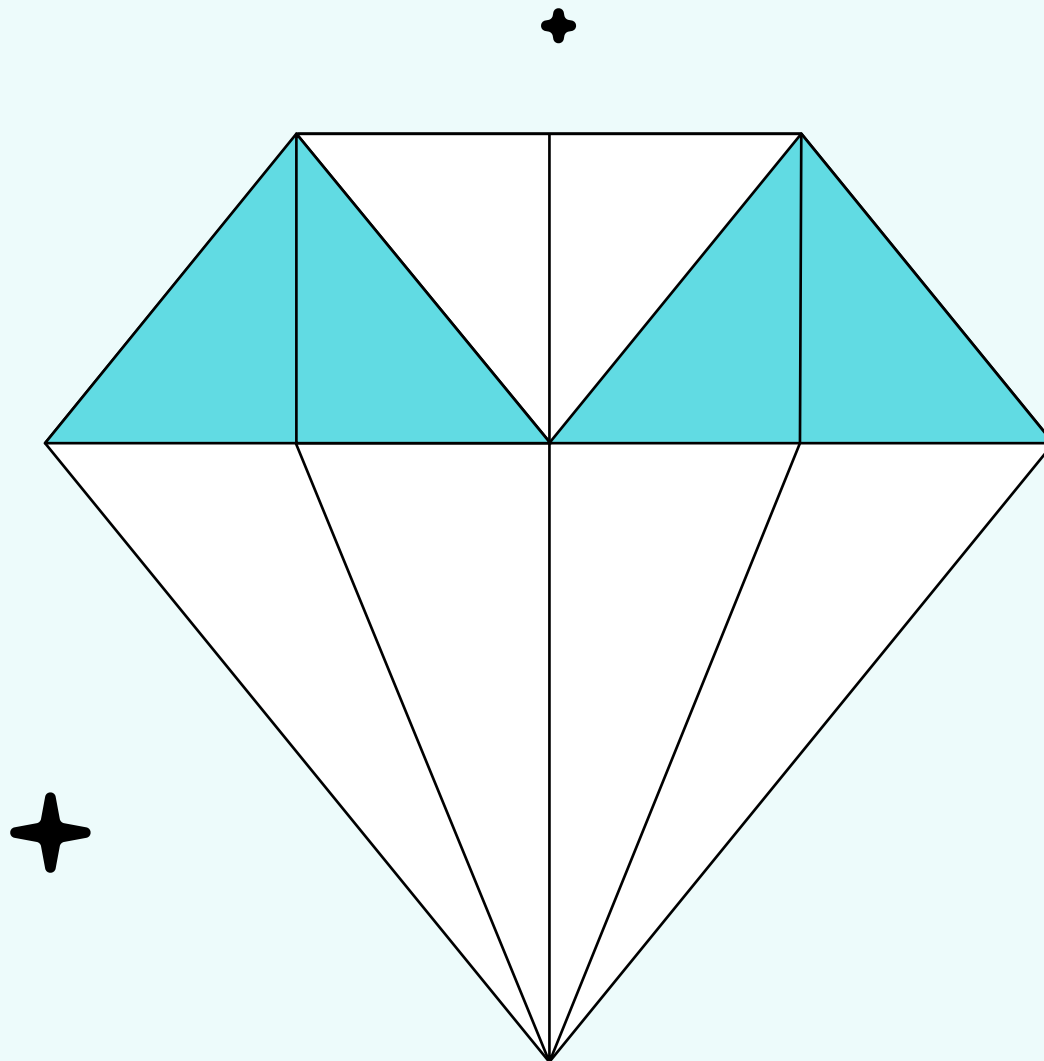
The change was particularly noticeable for mobile website versions: Uploadcare was able to cut over half the weight of pages meant for mobile devices, making everything much faster.

Previously, Zephyr's internal benchmark showed that the CMS-based pages were rendered in less than 200 ms; right now, they're under 100 ms on average. Not only does this make Zephyr a super-fast CMS, but it improves the search engine positions of websites built with Zephyr and enhances the overall user experience.

Zephyr's infrastructure is a selling point

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— Here's my WordPress site.
It performs terribly. Please
help us.

Uploadcare, as implemented in Zephyr CMS, provides better performance and reliability, so Zephyr can easily convey those benefits to their customers, and even their customers' end users.

Zephyr's customers also don't have to handle things like plugins, security, or maintenance because Zephyr is a fully managed cloud platform. Everything is scaled correctly, compressed, and delivered in a snap through a reliable CDN. Web design and marketing agencies appreciate that they no longer have to deal with image-related issues, and it helps Zephyr retain more clients.

— Since we don't have to spend time creating any of the features that Uploadcare delivers, this has increased our ability to roll out new features faster. The same goes for our clients. Instead of having to spend hours on editing and resizing images, they can really focus on their market, target audience, and strategy.

”



Sam McKinney,
Director of Agency Services at Zephyr

About Uploadcare

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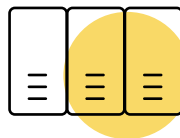
06/09/2020

Uploadcare is an end-to-end cloud platform that provides a next-gen infrastructure for file handling. It can cover any part of the media pipeline or all of them at once:

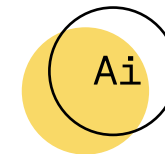
Suitable for both startups and enterprise-grade projects, it was battle-tested in the most demanding large-scale projects, yet it won't cost you an arm and a leg if you're just getting started.



One of the world's fastest File Uploaders



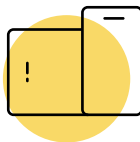
Automated secure Smart Storage



AI-driven Image Transformations Engine



Proprietary designed Visual Intelligence Algorithms



Adaptive Delivery solution

Get a competitive edge with Uploadcare

Uploadcare 

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