openmetal

CUSTOMER SUCCESS STORY

convesio

Watch the Convesio Customer Success Video Series

Convesio has pioneered new innovations in the WordPress hosting space since its founding in 2018. Their trajectory, however, was being stifled by outrageous costs, lackluster support, and inflexibility via AWS and GCP. They set out to find cloud providers that they could work closer with to help them continue to revolutionize and grow their platform.

OpenMetal helped Convesio gain:

- **Control and Customization:** Convesio gained root access to their cloud infrastructure to customize for optimal performance.
- **Cost Reduction:** Convesio has cut their public cloud costs more than 50%.
- **A Cloud Partner:** Convesio has gained a partner that shares their values and vision.

> Your team is the kind of people we would dream of having on our own team. And the great thing about working with you is that it feels like they are part of our team. This quickly won over trust with us.

Tom Fanelli, CEO and Co-Founder of Convesio

ABOUT CONVESIO

Convesio is the first self-healing, autoscaling platform-as-a-service for creating and managing WordPress websites.

Convesio specializes in helping mission-critical business websites, including eCommerce, membership, publication, or online learning management sites (LMS), that are susceptible to web traffic spikes. This can happen when large news sites break an important story. eCommerce sites often have flash sales. Online schools can have thousands of students logging into and/or taking a class all at once. When this happens, Convesio scales resources to achieve the highest speed and performance available.

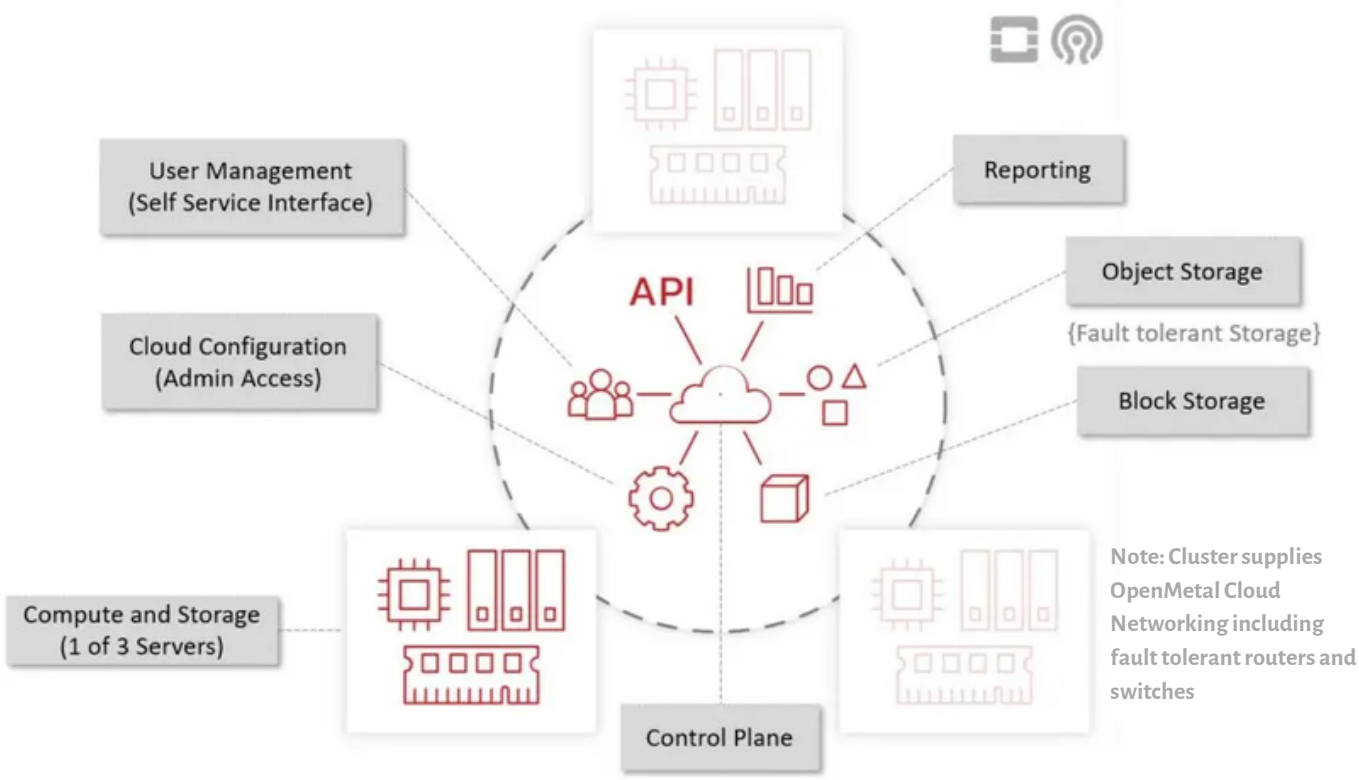
More than just a platform, Convesio also acts as a team of experts for customers. They help customers that want to focus on running their online stores – not spending time fine-tuning their infrastructure.

The Convesio Cloud Wishlist

- Five worker VMs per cluster to host various customer sites and workloads.
- Large VMs to provide burst support.
- Reduce expensive bandwidth costs.
- Reliable primary/failover services.
- More access and control to their supporting infrastructure for:
  - Performance optimization.
  - Density control.
  - Needed assisted management and support for OpenStack.

THE INITIAL ENGAGEMENT

Convesio learned of OpenMetal through a mutual friend. OpenMetal offers an on-demand, hosted private cloud model delivered on a unique single-tenant Cloud Core. Each Cloud Core is made up of an initial cluster of three bare metal servers, with all cloud features built in, powered by OpenStack (an open source platform) and Ceph storage. These Cloud Cores can be deployed in less than a minute and offer an easy expansion path with the ability to add and expand additional nodes and resources to the Core.



The concept of a hosted private cloud model, delivered on-demand on OpenStack, intrigued them. However, private cloud was not something they had ever considered, as it is not a commonly used platform in the WordPress space. But as Convesio started digging into the idea of a private cloud model, they started to see potential. They saw an opportunity to get the true solution they were searching for.

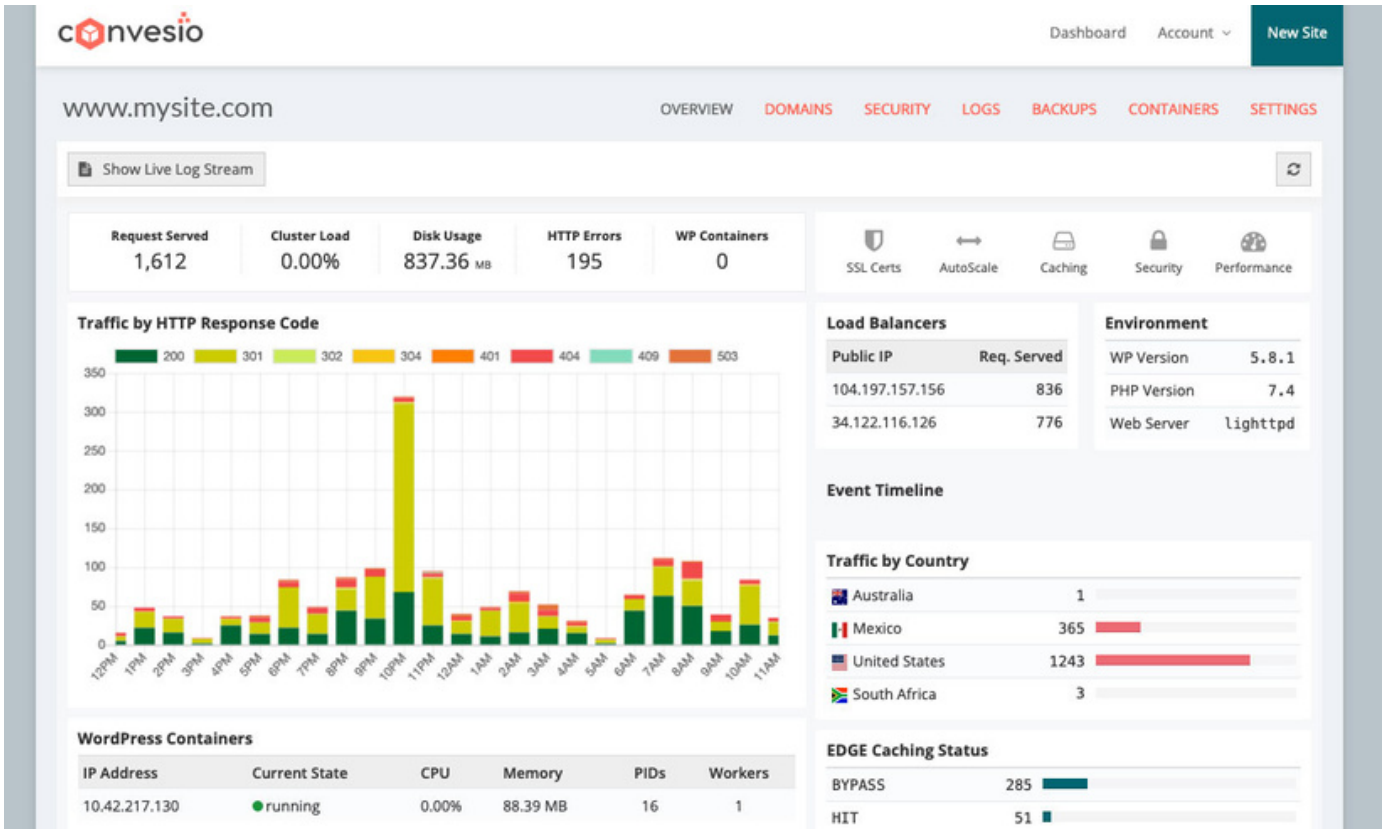
The OpenMetal platform offered them the same level of redundancy and structure as the large public cloud hyperscale options. However, the private cloud model gave them complete control and access to the individual server configurations to get the customization they wanted.

The only problem was that Convesio felt that the private cloud model was too complicated. It was new to them. They felt that setting up a private cloud and running production workloads was beyond their level of technical expertise and comfort. However, the OpenMetal team was ready to support them through the entire process.

CONVESIO'S VISION

While true fans of WordPress, Convesio had become frustrated by the lack of innovation in the space. The majority of WordPress users still overwhelmingly host their sites on shared servers. It is a low-end, but inexpensive solution for low-traffic sites. Owners of higher-end sites with heavy traffic demands could build and rollout highly scalable infrastructure on public cloud hyperscalers, but this required time and investment to hire developers and engineers. This made scaling feasible for larger sites, but created a gap for mid-market site owners.

To remedy this, mid-market sites began looking to eCommerce platforms like Shopify to solve their scaling challenges. This concerned Convesio, as Shopify is not open source or part of the WordPress space. This trend could mean the loss of high-value companies from those two communities.



Convesio knew they wanted to architect a highly scalable system for WordPress. But what they envisioned was not yet developed in the market. Convesio spent the next three years in research and development working with customers. They tested and validated ways to host WordPress using Docker and microservices to scale containers effectively until they achieved their goal. Finally, with positive feedback and with actual applications in use, they rolled out the service and began selling their product commercially in January of 2020.

With their service rolled out, Convesio immediately jumped into pursuing platform performance improvements by identifying and testing services from different cloud providers.

THE CHALLENGE

Convesio's intention was never to be a one-cloud shop. Their infrastructure was built with the idea of being cloud agnostic. They believe in the benefits of running solutions on multiple clouds for the same site and taking advantage of the ultra redundancy that comes with having a presence with different infrastructure providers.

Convesio deployed services on Amazon Web Services (AWS) and then Google Cloud Platform (GCP). Notably, they broke the norm used by their competitors in choosing not to adopt the internal services, giving them the agility to partner with many different providers.

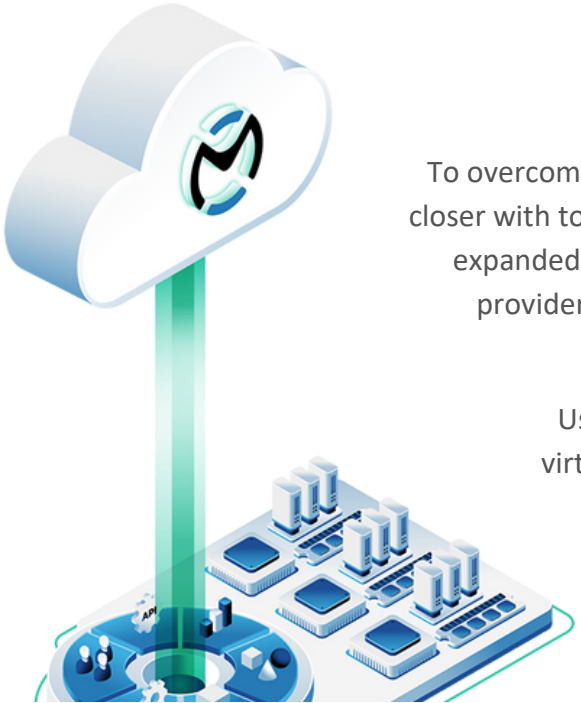
No Differentiation

Yet, a problem persisted. Convesio realized they were using the same cloud providers as all of their competitors. As a result, they were using the exact same cloud instances and hardware as Kinsta, WP Engine, and a dozen other hosting providers. This made it extremely difficult to differentiate their service.

Convesio knew that to stand out, it would need to deliver exceptional performance. Achieving this, however, required working closely with each cloud provider to customize their hosting services.

This was a concern because Convesio's experience with AWS and Google was in stark contrast to their own culture and mission to deliver a white glove, hands-on experience for their own customers. They had grown increasingly frustrated by the lack of attention that they received, especially unanswered support requests that would stretch hours and days without a response.

Feeling more like an insignificant number than a valued customer, Convesio felt that customization on AWS or Google was not a feasible option.



Needed a Cloud Partner

To overcome this, they set out to find cloud providers that they could work closer with to help them continue to innovate and grow their platform. They expanded their reach to hosting providers one level down, engaging with providers like DigitalOcean, Vultr, and other smaller independent cloud providers.

Using these services, Convesio realized they were simply offering virtual private clouds (VPCs) provisioned on a hyperscale provider. Once again, not the innovation they were seeking.

THE SOLUTION JOURNEY
PHASE ONE

Consultation and Proof of Concept (PoC) Build

With agreement on the scope, the team proceeded to build out an initial proof of concept (PoC). This PoC was a development cluster with 60 to 96 vCPU VMs on a XL Cloud Core for testing and learning purposes. It was all built on OpenStack, with half Ceph storage and half Ephemeral storage, as well as integration to a full suite of service capabilities, load balancers, etc. It was a feature rich environment built to give Convesio a complete bench test of the capabilities of OpenMetal.

The PoC was a measured success. Convesio found confidence in the private cloud solution. The hardware infrastructure gave them a path to achieve the levels of customization, innovation, performance, and resiliency they had envisioned. And they found the collaborative partner relationship that they had been looking for. Convesio saw OpenMetal as a partner aligned culturally to serve its customer with the same level of commitment and excellence with which Convesio serves its own clients.

The result that sealed the deal for them, however, was the cost. Early indications demonstrated a 50% reduction from the costs they were paying to GCP for each clusters they were deploying.

With a successful PoC and service agreement, OpenMetal and Convesio began building a full production build together.

The Specs

Three XL V2 Private Cloud Cores (Four x 3.2 TB NVMe) with Half Ceph / Half Ephemeral

> If we hit capacity on disk but still have CPU capacity, we wanted to tap into that. OpenMetal has been extremely collaborative with us to work that out, even building out spreadsheets to model out how many clients and what the density was based on CPU usage and disk usage.

THE SOLUTION JOURNEY
PHASE TWO

First Production Build

To make the investment with OpenMetal financially successful, Convesio needed to be able to deploy a minimum of two large clusters on OpenMetal, similar in capacity to what they had been deploying with GCP, individually. The end goal was to achieve two large clusters protected by triplicate data storage redundancy on Ceph storage.

OpenMetal began by expanding their original PoC design from three to five physical bare metal servers. Convesio wanted to spread out the VMs on their first production cluster, so adding two additional servers allowed for individual VMs on each of the five servers.

It was important to Convesio to deploy large VMs, as they would often have clients that needed resources on standby to allow for bursts of traffic. When bursts happen, they can only burst up to the amount of available resources to the operating system without causing performance slow-downs. Because Convesio was chiefly interested in ensuring performance, this meant that they needed resources available to handle any bursting that may happen.

When you operate in a shared environment, you are still required to pay for these resources that are just sitting idle waiting for the possibility of a burst to happen. As an example, Convesio was paying GCP for approximately 60 vCPUs per VM, when they rarely needed more than five or six vCPUs. But they needed them, just in case they needed to burst. These types of deployments result in wasted resources.

The Need for Bare Metal

Moving to bare metal servers would resolve this. **When the Cloud Core servers are idle, Convesio can maximize their existing resources to house more clusters, add more clients, and scale vertically on-demand, without adding additional costs.**

The OpenMetal team then reinforced their build footprint with PCLe 4.0 NVMe SSDs to deliver high performance on the latest version of the Ceph storage. The OpenMetal team also helped to customize the size of disks that Convesio was using to maximize space, based on what they thought they needed.

To address early storage issues, OpenMetal helped Convesio enable operating system features such as TRIM to free up space when VM files are deleted. After a number of workload retrospectives, the two teams worked together to determine the optimal ratio of CPU to RAM to DISK, maximizing the density of Convesio's production build to increase performance and capacity.

The Specs

Three XL V2 Private Cloud Cores (Four x 3.2 TB NVMe) + Two XL V2 Storage and Compute (Four x 3.2 TB NVMe) Half Ceph / Half Ephemeral

THE SOLUTION JOURNEY
PHASE THREE

The Final Production Build

As Convesio moved into a third phase of their journey, the teams began a second production build. Rather than using the fastest direct NVMe storage, they opted to fully configure the disks for Ceph block storage.

Their platform optimization solution already enabled reliable caching for their customers and the direct storage was not adding enough significant boost to performance after many tests. All of the disks were now part of Ceph storage, which gave them even more capacity, while being extremely performant.

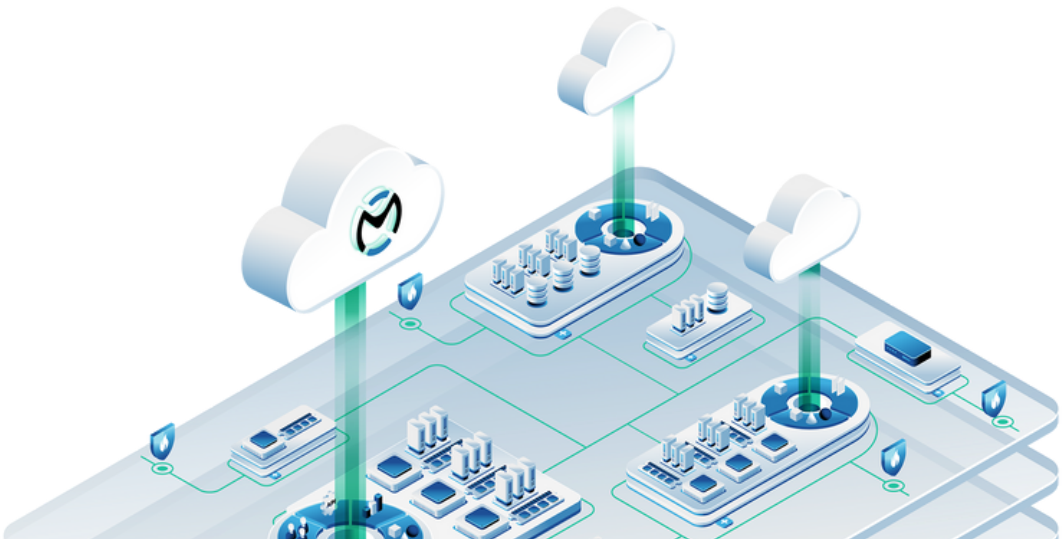
Another benefit is that it increased their resiliency (and ability to quickly recover in case of hardware failure, which is not possible with direct storage). OpenMetal also upgraded their hard drives from 3.2 TB to 6.4 TB, making the total Ceph capacity around 116 TBs.

Their original footprint was five server hosts to support a single cluster with five worker VMs per cluster. So they felt that if they could achieve two clusters (double their current footprint) deployed on the proposed XL Cloud Core it would be a successful ROI. **The result showed the capability to support between 10 and 12 clusters with XL Cloud Core, significantly exceeding their ROI expectations.**

OpenMetal also put Convesio into its upstream bandwidth model that gets billed at the 95th percentile and enables more flat billing rates to prevent unpredictable fees. This allows Convesio more control over data transfers and significantly lowers costs vs the public cloud fees that they were paying to GCP.

The Specs

Three XL V2 Private Cloud Cores (Four x 6.4 TB NVMe) + Two XL V2 Storage and Compute (Four x 6.4 TB NVMe) Full Ceph



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ESTIMATED COST SAVINGS

By moving to an OpenMetal Cloud Core with the two additional XL servers, Convesio found that they are able to support somewhere between six to 10 clusters, with each cluster delivering the same VM and resource capacities that they were experiencing from their individual GCP clusters. This exceeded Convesio's goal of two clusters on OpenMetal by more than three times. But financially, it has allowed Convesio to conservatively deploy six+ clusters on one OpenMetal production build for approximately $9,500 a month versus having to purchase six or individual GCP clusters for $23,778 or more per month.

While the first cluster on OpenMetal is more expensive than the first GCP cluster, it is easy to see how quickly the advantage of adding multiple clusters on OpenMetal adds up to significant savings over the addition of individual clusters on GCP.

When combined with OpenMetal bandwidth costs that are 50% to 80% lower than public cloud costs like GCP, the financial advantages quickly added up.

Cluster Specifications	Google Cloud Platform (GCP)	OpenMetal
Cluster Capacity	One Cluster Per	Six+ Clusters Per
Size of VMs	Large	Large
Number of VMs per Cluster	Five	Five
Monthly Pricing Per Cluster		
Cluster 1	$3,963	**$9,500**
Cluster 2	$3,963	**$0**
Cluster 3	$3,963	**$0**
Cluster 4	$3,963	**$0**
Cluster 5	$3,963	**$0**
Cluster 6	$3,963	**$0**
Total Monthly Cost	$23,778	**$9,500**
Bandwidth	Est. $0.02/GB	**Est. $0.01/GB**

THE RESULTS

Through collaboration, OpenMetal has been able to help Convesio fulfill its goal and create something new and innovative for the WordPress community. But for Convesio, this journey to OpenMetal has also provided them three key advantages:

A Cloud Partner

Convesio has found a team that complements their culture and mission to deliver high touch services and provides ongoing collaboration to build new solutions.

Control and Customization

Convesio now owns their cloud infrastructure, giving them the power to optimize performance and build new innovations for platform and the WordPress community.

Cost Reduction

Convesio has achieved new levels of cloud resource and operational efficiency that have cut their cloud spend more than 50% to use for new business development.

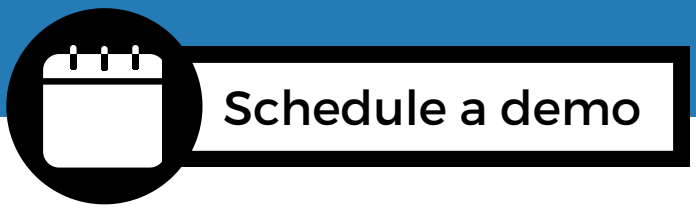
The Next Phase?

For its next phase, Convesio is already working on replicating their current OpenMetal footprint to deploy additional production builds in OpenMetal data center sites that include Los Angeles, California, and Amsterdam in Europe.

At the end of this case study, Tom Fanelli, Convesio's Chief Executive Officer and Co-Founder, was asked what advice he would give to others also considering a move from their public cloud providers. The following is his response.

"Public clouds are really too expensive. You don't have to spend that level of investment with a public cloud. The answer to that is a private cloud. But you need a trusted expert that you can rely on, and that trusted expert is OpenMetal. With OpenMetal you're going to have huge savings, but you need an expert to navigate the waters because this technology is very different from the public cloud. So that's why I would tell people to go with OpenMetal."

Did this resonate with your business needs? Contact our team to find out how OpenMetal can optimize your infrastructure and help you break away from exorbitant public cloud costs and restrictions.



ABOUT OPENMETAL

OpenMetal is a leading provider of open source cloud and infrastructure-as-a-service (IaaS) solutions. By combining the strengths of traditional public cloud, private cloud, and bare metal fused into an alternative cloud platform (powered by OpenStack and Ceph), OpenMetal eases accessibility to highly complex open source systems and allows companies of all sizes to realize new opportunities in performance, productivity, and profitability. A strategic member of the Open Infrastructure Foundation (OIF), OpenMetal is committed to empowering individuals – by themselves or within teams – to meaningfully contribute to the larger open source community to foster innovation that benefits all.

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