

The Next Evolutionary Stage

How Konmedia Realized a Highly Scalable Cloud-Native Platform with CLYSO

From hardware-centric legacy structures to a hyper-converged Kubernetes cluster: A success story about independence, technological excellence, and the performance of brandbox.



OVERVIEW

The Transformation of Konmedia's Infrastructure

For over two decades, Konmedia has been supporting customers in digitizing their brand communication. However, the technological foundation that had sufficed for a long time eventually reached its limits. The vision of founders Christoph Schmid and Dirk Münker was clear: to eliminate dependency on major hyperscalers and build a fully automated, scalable private cloud for their core platform, brandbox, powered entirely by open-source technologies. Together with the experts at CLYSO, they successfully transitioned to a full cloud-native architecture, replacing the previous NFS-based environment with a high-performance, hyper-converged platform built on Kubernetes and Ceph.

 THE INITIAL SITUATION**Fragmented Meets Rigid Hardware Constraints**

Before the pivotal switch in 2017, Konmedia's IT infrastructure was characterized by traditional web hosting and a heavy reliance on hardware providers. Given the extremely diverse customer requirements ranging from online shops with highly seasonal fluctuating traffic to MarTech applications processing terabytes of data, a separate server had to be rented for almost every project.

With complex bare-metal server environments, the architecture became not only maintenance-intensive, but also difficult to scale efficiently. Every update, monitoring adjustment, or programming language change had to be implemented manually across each individual customer environment. Early on, Konmedia recognized the potential of modern orchestration and took the first pioneering steps toward Kubernetes. Initial benefits in scaling and flexibility quickly became apparent. However, to fully exploit the technology's potential and achieve a 100% cloud-native environment, the existing setup, which until then relied on NFS storage and a 5-node cluster, had to be technologically advanced. The goal was to securely handle the growing load of brandbox instances with maximum performance and deep operational know-how.

 THE CENTRAL CHALLENGE**Increasing Cloud-Native Maturity**

Although Konmedia had already created a scalable foundation with their Kubernetes cluster 1.0, the actual challenge lay in the maturity of the configuration and the application architecture, which was not yet fully aligned with cloud-native principles.

Factors such as the use of NFS as central storage and architectural dependencies, such as a central, non-distributed database server, hindered the system's full agility. Many applications were not yet conceived as 100% "cloud-native" at their core. In practice, this meant that while the infrastructure could theoretically grow, the application structures and specific configurations still required too many manual adjustments during every expansion. To fully leverage the SaaS platform brandbox, it was necessary not only to professionalize the infrastructure but to consistently transition the entire environment to cloud-native principles.

 THE SOLUTION**Hyper-Convergence and Cloud-Native Strategy**

In close collaboration with CLYSO, an architecture was designed that consistently focuses on resilience, flexibility, and the transformation into a fully cloud-native-ready environment. The goal was a hyper-converged setup where storage and compute are efficiently managed on the same nodes to permanently eliminate architectural bottlenecks.

THE NEW ARCHITECTURE IN DETAIL:

- Kubernetes & Ceph** The heart of the system is an expanded 6-node Kubernetes cluster. Instead of relying on inflexible NFS shares, Ceph was implemented as the storage backend (orchestrated via Proxmox). This enabled the high-performance provision of persistent volumes (PVs) for brandbox and allowed for dynamic scaling of storage capacities.
- Maximum Data Security** Through an intelligent retention policy in Ceph, deleted volumes are not physically removed immediately, allowing data to be recovered for up to 30 days. This significantly reduces the risk of data loss caused by misconfigurations or accidental deletion.
- Optimized Workloads** Today, the platform hosts critical applications such as the image-processing solution Callas, GitLab-based application development, and the entire brandbox infrastructure, all operating within a fully cloud-native architecture.

 THE PATH TO SUCCESS**Driving Transformation Together**

A key technological milestone of the new solution is the capability for rolling upgrades. While updates previously involved maintenance windows and downtime, the new setup now enables major version upgrades during live operation. The load is automatically shifted between nodes while individual components are updated, ensuring uninterrupted operations for brandbox customers at all times.

The migration was carried out gradually, customer by customer, ensuring a controlled and stable transition throughout the process. Equally critical was the transfer of operational knowledge. While Konmedia brought strong development expertise, CLYSO complemented the team with deep operational and infrastructure experience. Through collaborative review sessions and hands-on guidance, the Konmedia team was empowered to independently operate, manage, and further develop the environment according to modern cloud-native standards.

✓ RESULTS & CONCLUSION

Through the partnership with CLYSO, Konmedia has achieved the next stage of evolution. The system is now fully optimized for cloud-native principles, runs with high availability, and is significantly more performant due to the Ceph backend.

No Vendor Lock-in Full control and sovereignty through a consistent open-source setup.

Zero Downtime Seamless major upgrades without service interruption.

Future-Proofing The architecture delivers the stability, scalability, and operational maturity required to seamlessly expand into the petabyte range and support the long-term growth of brandbox.

“**CUSTOMER STATEMENT**

"We wanted to move away from dependency on major hyperscalers and toward a solution as individual as our customer projects. CLYSO not only elevated us to the next technological level but also returned sovereignty over our infrastructure through intensive knowledge transfer. Especially the ability to perform major updates without any downtime for our brandbox customers is a true game-changer for us."

Christoph Schmid & Dirk Munker
Founders of Konmedia

**konmedia**

 KEY FACTS

01. Product

brandbox (MarTech solution)

02. Setup

6 Kubernetes Nodes (Hyper-converged)

03. Storage

Ceph with 30-day recovery option

04. Features

Rolling Upgrades (No-downtime)

05. Focus

CI/CD, Image Processing, Scalable Customer Shops

06. Project Approach

Iterative migration & enablement of the customer team

 CUSTOMER PROFILE

About Konmedia

Konmedia GmbH was founded in 2002 by Christoph Schmid and Dirk Munker. Following its beginnings in cross-media publishing, the company developed the brandbox brand in 2009, which today functions as a modular SaaS platform for marketing and sales processes. With the apps pim, dam, ai, portal, and publish, Konmedia optimizes the communication of globally active companies. Customers include renowned brands such as Acer, Bosch, Dormakaba, La Biosthétique, and WeberHaus. Konmedia stands for the combination of technical innovation and highly efficient workflow solutions.



CLYSO

Facing a similar challenge? We would love to hear from you and support your transformation.

 [+49 89 215252730](tel:+4989215252730)

 sales@clyso.com

 www.clyso.com