



How CUBE Bikes Got to 100% Uptime With Only 5 Hours of Maintenance per Month

The Challenge

Release More Often at Less Risk

To keep up with their dynamic business landscape, CUBE Bikes' IT team wanted to increase the frequency of new releases for their business-critical services. They also needed a more automated, dynamic process for updates anytime, so they would no longer need to run these afterhours. In addition, they sought to eliminate unforeseen errors due to interdependencies between services. Essentially, what they needed was high availability of services 24/7/365.

The Solution

Build a Highly Available Kubernetes Infrastructure

Well aware that containers would help them achieve high availability of their services, the CUBE Bikes' team chose Kubermatic Kubernetes Platform (KKP) to deploy and manage Kubernetes on their premises. To ensure smooth implementation and ongoing support, they also decided to go for Kubermatic's Managed Service. After the deployment of KKP was completed within a short delay, they migrated their services one after another to their new highly available infrastructure.

The Impact

More Releases, No Day 2 and Day 3 Problems

CUBE Bike's IT team now delivers more releases and updates automatically, without the need for overnight staffing. They've eliminated errors due to interdependencies and, according to Helmut Joost, Technological Head of IT, "the whole environment is much more flexible, faster, very stable and easy to scale." This new world has encouraged Helmut to plan the migration of the remaining legacy services for better functionality and to provide all of the benefits of containerization throughout the organization.

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Setting the Pace for Business Innovation

CUBE Bikes is a global success story, employing over 1,000 people, producing 400 models of bikes and e-bikes with distribution in 67 countries. Its culture is very dynamic, employing a predominantly young demographic, so its IT department is driven to adapt to change and implement innovation quickly. The current boom in the bike industry due to the pandemic has demanded that the IT organization continues to respond to and safeguard the growth and innovation of this vibrant company. To ensure best adaptability to their business processes, CUBE Bike invests in-house to develop their own internal services, including enterprise resource planning, warehouse management and a customer web interface that all run on their own servers.

Warehouse management is a critical function for CUBE Bikes. To continually improve this application, IT needed to increase the frequency of releases without risking the service going down. In the past, rollouts had to be done overnight to avoid painful and costly downtime, which was very inconvenient. In addition, there were unforeseen interdependencies between the services which, when updating one service produced errors in another. Integrating their CI/CD pipeline to provide for automated releases was equally important. So their key objective was to turn their business-critical applications into highly available services that could be updated automatically at any time and without interruption.

Never Walk Alone – In Quest of the Right Strategic Partner

CUBE Bikes' Technological Head of IT, Helmut Joost, was already familiar with the popularity of containerization, and the external consultants that he had worked with on various projects confirmed his assessment. Initially, he considered installing Kubernetes on their hardware themselves. He was concerned, however, that even with a successful implementation, Day 2 and Day 3 problems could arise for which they had to count on the right people to quickly get things up and running again. Without the proper skillset, an in-house management of Kubernetes could backfire on them down the road. Furthermore, as software engineers they wanted to stay focussed on development and innovation.



So the search began for service providers that could deploy Kubernetes on CUBE Bikes' own hardware just like a cloud service, within minutes and ready to be consumed. At the end of the day, they decided on a Managed Kubermatic Kubernetes Platform. Once the decision was made, the deployment of the platform and the migration of services was straightforward and trouble-free.

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More Releases, Happy IT

With the Kubermatic Kubernetes Platform, the CUBE Bike team now benefits from a highly reliable and stable infrastructure. In case issues arise, they rely on Kubermatic's support specialists. The fact is that the overall maintenance support requirement has been quite minimal; only about 20 hours in the last two years, which Helmut points out is another benefit of the Kubermatic collaboration; "One quickly forgets the pains of the past: you don't notice when things are running well!"

In addition, CUBE Bikes' IT team has integrated their CI/CD pipeline with the new environment and automated their releases so they don't have to work after hours, which makes the team pretty happy. Moreover, by containerizing their services and migrating to Kubernetes, they are benefitting from the many additional advantages of this technology, like auto scaling and load balancing: These functionalities, which did not exist before or required a lot of effort from the team, are included and working out-of-the-box.

Looking back, the most important advice that Helmut would give is to, "work with experts right from the start; Kubernetes is comprehensive and without extensive knowledge of the platform, you risk getting lost and not getting the best of what containers and Kubernetes have to offer. He added:

“ Working with Kubermatic and the Kubermatic Kubernetes Platform has helped us kickstart the cloud native journey and make optimum use of our existing hardware.

Helmut Joost

As a next step, the team has planned to modernize their applications to a more distributed architecture and decouple the remaining interdependencies to further leverage the benefits of Kubernetes and container technologies.



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Kubermatic empowers organizations worldwide to fully automate their Kubernetes and cloud native operations across multi-cloud, edge and on-prem. As the #6 top committer to the Kubernetes project for over 3 years, Kubermatic develops enterprise-grade software solutions and provides professional services and support to safely navigate and accelerate the cloud native transformation.

Leading enterprises including Lufthansa, Bosch, Siemens, and T-Systems trust Kubermatic on their cloud native journey.



Originally founded in 1993 by Marcus Puerner in a small corner of his father's furniture factory, CUBE Bikes has grown from importing a small number of bikes to sell in the local area to a global front runner with over 1,000 employees. CUBE Bikes produces 4,000 bikes and e-bikes daily and distributes 400 models in 67 countries worldwide. Their product portfolio includes a broad range of bikes and e-bikes, as well as an extensive collection of clothing and accessories.

Want to Know More?

Contact our sales team at sales@kubermatic.com or visit our website at kubermatic.com