



CUSTOMER SUCCESS STORIES

advact Achieves Complex Database Migration to CloudNativePG with Support from EDB





CUSTOMER: advact

EDB customer since February 2024

Markus Helfer
Cofounder, Co-CEO
advact

CHALLENGE: After migrating its applications, this Swiss email security specialist needed a high-performance database solution to support both PostgreSQL and Kubernetes.

EDB SOLUTION: On-prem Community 360 Plan with production support

RESULTS: With help from EnterpriseDB (EDB), advact was able to execute a successful migration to CloudNativePG in less than six months, enhancing the company's capabilities and providing the scalability to support additional growth for the future.



OVERVIEW

Modernizing by moving to the cloud

As advact's cofounder and co-CEO, Markus Helfer had recently completed a migration of the company's applications to the cloud with Kubernetes. This was a significant upgrade needed to improve the delivery and management of information security solutions for advact's growing customer base. However, despite the enhancements achieved from this initial transition, the company was still leveraging a single external server for all its database needs and faced the core challenge of aligning its capabilities with the new cloud-based applications.



"We really wanted to integrate the database into our DevOps way of working," Helfer says. "After migrating all of our applications, one after the other, to Kubernetes, the developers and engineers got used to being able to quickly spin up an application. But they were never able to do that with a database."



After serious consideration and plenty of research, Helfer concluded that migrating the company’s database to PostgreSQL would be the best option, based on the comprehensive functionality of Postgres® and its popularity and strong community of developers in the open source space. In order for a Postgres solution to be successful, Helfer knew that advact needed a provider who could meet a variety of additional criteria, including point-in-time recovery, high availability, scalability, and infrastructure-as-code capabilities to match those provided by Kubernetes in the realm of applications.

“I was researching quite a lot of products and tools, and they were either too expensive or didn’t feel mature,” says Helfer. “Then we tried to use the official Postgres container, which is publicly available on Docker Hub. That worked fine for testing but didn’t have the high availability and backup we needed.”

After an exhaustive search, Helfer discovered CloudNativePG, EDB’s Kubernetes-based operator designed for both high database availability and integration with PostgreSQL. Although not entirely sold at first, due to a lack of experience with the platform, Helfer was impressed by EDB’s wealth of documentation on the solution and reached out to learn more. After meeting with EDB’s Postgres experts, Helfer chose EDB and CloudNativePG to support advact’s migration efforts.

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Markus Helfer
Cofounder, Co-CEO, advact

Filling in the knowledge gaps

While advact had landed on the right solution in CloudNativePG, the early stages of its migration still posed considerable challenges. More specifically, due to their lack of knowledge and experience working with Postgres at the time, Helfer and his team needed to simultaneously integrate and adapt to an entirely new set of tools and infrastructure.

"We really weren't Postgres experts," explained Helfer, "so we quickly discovered that was an area we were lacking in a little bit. Not just in terms of CloudNativePG but with Postgres in general, and that's where we had to build up some knowledge."

“*And that's also where EDB and its support team were an advantage. They really helped us fill in some gaps, and that was great.*”

Markus Helfer
Cofounder, Co-CEO, advact

In fact, advact's journey revealed a DevOps team that was eager to leverage this complex migration as a learning opportunity. Helfer says that working with databases for the first time in Postgres and Kubernetes allowed his developers to realize that they had been overlooking the importance of storage in database performance.

"We quickly discovered, based on documentation provided in EDB's presentation, that storage is maybe the most important factor to ensuring a database runs properly," Helfer says. "So we really had to look at our storage solution in Kubernetes and adapt or configure it to work best for databases. For example, we changed from using several replicas to one single replica of the storage, because the CloudNativePG operator takes care of high availability and replication. It was a learning curve, yes, but it ultimately worked out."



An invaluable boost in confidence

After overcoming some initial challenges, advact was able to execute a successful migration to CloudNativePG in less than six months, with help from EDB. Helfer says the migration marks a significant improvement for advact, in terms of both enhancing the company's previous capabilities and providing the scalability to support additional growth.

"When we started, we had one external database server, which was very static and had no high availability, point-in-time recovery, or infrastructure-as-code. That has changed a lot with CloudNativePG," he says. "Today we're much more flexible, and while initially growing from five to 70 customers was a challenge, I'm sure that between our new infrastructure, operating knowledge, and the databases we have now, we could easily go from 70 to 700 customers and it wouldn't be a big deal."

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Cofounder, Co-CEO, advact



An improved database architecture for an accelerating business

The improved functionality and capabilities achieved from the migration have been transformative for advact as the company embraces digital transformation and accelerates its business. However, the most important thing Helfer and his team have gained from the process is a newfound sense of conviction in managing current operations and driving the development of new products and services down the line.

“Even though integrating our database into Kubernetes was challenging for the reasons I mentioned earlier, it was also a huge success,” says Helfer. “So I think it will give us much more confidence to approach other complex or difficult system migrations and upgrades in the future.”

In terms of what, more specifically, lies ahead for advact, the company is currently in the process of leveraging the new tools and infrastructure to hone the anti-phishing features associated with one of its core information security solutions.

“This is another reason we changed our infrastructure, to allow us to change and add another layer of security to our product around phishing emails,” says Helfer. “Whereas our analysts could previously only evaluate and flag potential phishing emails, we’re now working on a feature that will catch, delete, and block these communications automatically.”

As advact continues to build new features and upgrades, EDB and Postgres will be there to help support the workloads of the future.



EDB provides a data and AI platform that enables organizations to harness the full power of Postgres for transactional, analytical, and AI workloads across any cloud, any time. For more information, visit www.enterprisedb.com.

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