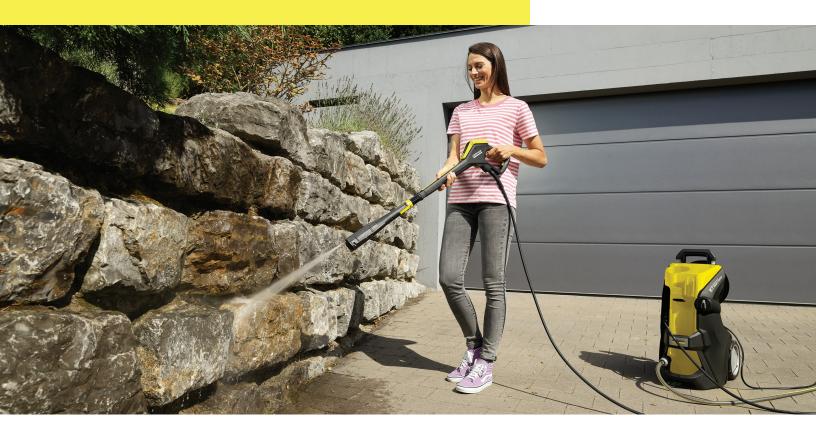# Kärcher innovates in the cloud to clean the world

∏ NetApp

NetApp Cloud Volumes ONTAP runs critical file services on AWS. NetApp FabricPool keeps costs low with intelligent tiering.

What do Brandenburg Gate, the Colossi of Memnon, and Mount Rushmore have in common? They're all famous landmarks that shine in renewed splendor thanks to Kärcher.

Cleanliness is big business for Kärcher, a manufacturer of a broad range of innovative cleaning products, including pressure washers, vacuums, and other devices. Nonstop innovation to create products that make life easier and better is the focus of the German company. A clean switch to cloud data storage is making new innovations possible.

Switching the data of 14,000 users from on-premises appliances to cloud-native NetApp® ONTAP® was another milestone in Kärcher's cloud-first strategy. With NetApp, critical file workloads meet high demand in a public cloud. Spotless performance pays off.

KÄRCHER

> "With 20% less storage costs, we can now hold backups longer and support users better."

Leonhard Kerscher
Senior Director IT & Digital Transformation, Kärcher

Mission cleanliness
Home and garden, trade, industry—Kärcher is active wherever cleaning is required. This German family-run business has more than €2.7 billion in annual revenue. More than 13,500 employees in 73 countries keep the brand going strong.

Kärcher keeps breaking new ground with innovations. For them there is no problem without a solution, and every solution can be improved. Data, the Internet of Things, and the cloud enable state-of-the-art functionalities like fleet control, predictive maintenance, and Bluetooth apps for operating high-pressure cleaners.

From CAD to SAP, files are best in the cloud
Innovation at Kärcher is fast-paced—9 out of 10 of their products are at most 5 years old. From office documents to design drawings and simulation results, data files are often key to success. Formats like SAP IDocs keep countless systems, from the shop floor to SAP, communicating and the supply chain going.

Kärcher had a hosted NetApp ONTAP system to run their file services, but they wanted a fresh approach and greater transparency. "IT must add value. Flexibility, scalability, and new technologies help us to serve our business more stably and faster. In the end, it's all about innovation and cost reduction," said Leonhard Kerscher, senior director IT & digital transformation at Kärcher.

Transformation expert and Kärcher partner Zoi brought the right people together. "We discussed concepts and costs intensively in workshops with NetApp. Finally, Cloud Volumes ONTAP for AWS perfectly fit our cloud roadmap, up to data tiering and local caching," Kerscher said.

Cloud Volumes ONTAP unites proven ONTAP data management with cloud flexibility; more than 70% of Kärcher's workloads are already in the public cloud, primarily using AWS as the provider.

Kärcher manages with a few ONTAP instances: a highly available cluster made up of two instances at AWS in Frankfurt and additional instances for geographically redundant backups. Cloud Volumes ONTAP replicates data between the regions in an automated and efficient way. In case of a disaster, operations can start from another region within minutes.

"NetApp knows how the cloud works, has true cloud products, and understands the business context. Combining the innovative with the classic and matching it with customer needs is a NetApp core strength," said Malte Brodersen, managing consultant at Zoi.

"Kärcher is a company with a history and business-critical use cases. That requires a mature solution with full connectivity like Cloud Volumes ONTAP. LDAP integration or synchronizing groups for 14,000 users has to work. Using just cloud-native storage wouldn't have been an alternative."

Flawless migration
File services never stop. On this project, migration had to be done live and within 3 months. A successful test run, the right technology, and tight teamwork made it happen.

More than 30 ONTAP 7-Mode volumes were mapped to storage virtual machines. Kärcher, Zoi, and NetApp Professional Services set up a step-by-step plan and worked through it together. Drives, authorizations, and connectivity had to be aligned worldwide. Because the source and target are both ONTAP flagged, the process was easy and fast. Because data was transferred in blocks, the size of the files, including gigabyte-heavy ZIP files, didn't matter.

"Thanks to the pre-work with NetApp Professional Services, migrating 190TB to Cloud Volumes ONTAP went without a glitch. Free weekends, no rollback, hardly any rework. We also moved volumes ourselves," said Andreas Vogel, infrastructure architect at Kärcher. "Cloud Volumes ONTAP ran from the very first minute and ever since without a noise, just like we're used to from NetApp. For our users, nothing has changed, except for faster access from the home office."

Now, Cloud Volumes ONTAP provides 100% insight into the systems and helps the team quickly detect unbidden guests on the storage.

Clear conditions
NetApp presented detailed considerations on economic efficiency. Among others, it proved that the bring-your-own-license (BYOL) price model cost approximately 15% less than a pay-as-you-go model.

Operative tasks are clearly defined. AWS is in charge until the software level. Zoi takes care of all parameters up to the Kärcher perimeter, as well as the daily business, including the help desk. NetApp supports Zoi with professional services and maintains the ONTAP software. And Kärcher? Their team can focus on core tasks and optimization.

Kerscher said that the close and ongoing collaboration with NetApp is part of the whole success. "Even after the project we are still in direct contact and discussion with NetApp and appreciate that very much."

ONTAP in the cloud pays off
Unlike before, the volumes stay slim using intelligent tiering. NetApp FabricPool automatically moves files that are unused for 30 days to S3 storage; 80% of the data is currently onS3. The more data is offloaded, the greater the savings. This data movement helped to expand the backup horizon from 30 days to 6 months.

ONTAP in the public cloud delivers flexibility and performance. New projects quickly get the required storage capacity. Because the files are now also on AWS, the access paths are shorter. Distributed data storage and disaster recovery have increased security.

"With 20% less storage costs, we can now hold backups longer and support users better," said Kerscher.

Global and local in one
Access times are never short enough. Kärcher is exploring using NetApp Global File Cache between its Winnenden and Obersontheim locations and AWS Frankfurt. The software accelerates remote file loading. It streams a file from the cloud to a local site and makes it available there for future use. The technology allows a user to run CAD simulations with 10s of gigabytes of data easily in a home office. Kärcher can also employ the concept globally, for example with AWS in Northern Virginia for its companies in the United States and Mexico, or wherever data is needed.

"NetApp helped Kärcher make a big and painless change to a new provider and operation model," said Malte Brodersen. "Employees can use and consume data from NetApp storage just as before, but now based on modern cloud technology."

NetApp products

Cloud Volumes ONTAP
FabricPool data tiering
ONTAP 7-Mode transition tool
SnapMirror® data replication
Professional Services

Partner
Zoi

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