



# Going off-road with unified shared storage for flexible scalability.

Kässbohrer Geländefahrzeug AG's PistenBully snow groomers deliver powerful technology to get tough jobs done in difficult-to-access locations. But the iconic red PistenBully seen in ski regions everywhere isn't the only implement Kässbohrer sells. As the leading supplier of all-terrain vehicles for the environment, nature and recreation, the group, based in Laupheim, Germany, also provides beach cleaners and track carriers.

**Starting point.** As the leading supplier of all-terrain vehicles, Kässbohrer Geländefahrzeug AG not only requires the highest product quality, but also continuous optimisation and innovation. Paired with its specialised know-how, this is how the company continues to cement its market position. New technologies undergo stringent testing and extensive trials before they are implemented in vehicles, while the company itself is continually enhancing its internal processes. To this end, Kässbohrer wanted to replace its existing servers and local storage with a flexible, scalable and redundant solution to be installed in its own data centre. The goal was to optimally distribute workloads and extend the company's established data centre strategy to the storage environment.

**Project objectives.** While strategically planning its IT overhaul, Kässbohrer Geländefahrzeug AG was looking for a powerful, high-availability system that would provision synchronously mirrored data in each section of the data centre. In addition, the group sought to ensure that its storage investment would last well into the future, able to handle the rising data volumes to be generated over several years. By introducing a unified shared storage solution, Kässbohrer also aimed to consolidate its existing storage system while reducing data and simplifying management.

**Process.** In a joint workshop, Bechtle and Kässbohrer Geländefahrzeug AG drew up a catalogue of requirements, which Bechtle specialists used to propose a solution after comparing vendors. In addition to optimising performance, this solution also consolida-



“While we were already impressed by the preparations leading up to the project, we were blown away by how perfectly this complex project was pulled off – on time and in budget – without interfering with running applications.”

**Matthias Rausch,**  
Head of IT and Organisation,  
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ted the Windows file systems on the storage system's NAS components. After demonstrating the performance of the proposed solution through comprehensive testing, Bechtle was entrusted with implementing and managing the project. Implementation took place without impairing the current infrastructure or disrupting user productivity.

**Solution.** To consolidate storage infrastructure, Bechtle – a Dell EMC expert – implemented a storage solution with two Dell EMC VNX systems using SSD media for maximum performance in Kässbohrer's data centre. This unified storage solution mirrors block data synchronously, making it available for server and client virtualisation at all times. File data, on the other hand, is consolidated on the Dell EMC system and periodically replicated to the second data centre. This enables Kässbohrer to benefit from file and block data services on a single platform. Performance is optimised through the use of Dell EMC Fast Suite and flash drives. Dell EMC's multi-tiering solution FAST VP (Fully Automated Storage Tiering for Virtual Provisioning) enables first-rate data provisioning as well as automatic, efficient management. It does so by determining, in the background, which data is used most often and moving it automatically to the most suitable storage tier based on policies – requiring no manual intervention by administrators. This allows the most active business processes to always take advantage of optimal system performance and significantly streamlines administration. Consolidating the existing Windows file systems through the Dell EMC VMX system's NAS technology further simplifies administration as this offers a single unified management interface enabling unified file, block, object and replication management. In addition, Dell EMC VNX storage is managed through pools thanks to storage efficiency technology, allowing new storage to be provided instantly and without downtime as data volumes grow, providing a high level of investment protection for the future. Dell EMC's deduplication feature also significantly reduces the amount of data in the file system environment, reducing overall storage requirements.

**Business benefits.** By implementing the Dell EMC VNX system, Kässbohrer Geländefahrzeug AG has optimised I/O performance for its data workload. FAST VP makes the most of storage resources, deduplicating files to accommodate more data with the same capacity. As a result, storage investment and operating overhead are both reduced. Automating multiple processes also cuts down on the amount of IT administration required. Dell EMC's powerful unified storage optimised for virtual applications with unsurpassed ease of use and efficiency now provides Kässbohrer with higher performance, availability and less manual intervention.

## CUSTOMER PROFILE

**PistenBully®**



**KÄSSBOHRER GELÄNDEFahrZEUG AG**

Kässbohrer Geländefahrzeug AG, headquartered in Laupheim near Ulm, produces special vehicles for use on rough terrain. Founded in 1994 after a buyout of the all-terrain vehicle division of Karl Kässbohrer Fahrzeugwerke GmbH, the company is the market leader in vehicles used to maintain slopes and tracks, construct terrain parks and prepare steep slopes. It delivered its 20,000th PistenBully snow groomer in September 2014. If there's a need to tame snowy landscapes, PistenBully is there to do it – even in Antarctica, where international researchers rely on research vehicles which are now also delivered with tailor-made navigation and snow depth measuring systems. Kässbohrer Geländefahrzeug AG develops and sells its own slope and fleet management system under the brand name SNOWsat. The company also manufactures special vehicles for beach cleaning or agricultural use, e.g. for bringing silage to biogas plants, working with peat or mowing and mulching on soft terrains.

For more information, please visit:

[www.pistenbully.com](http://www.pistenbully.com)

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