Fsas Technologies
a Fujitsu company

Bergbahn AG Kitzbühel

Proxmox VE for Maximum Availability and Flexibility

The Proxmox VE virtualization solution, implemented with PRIMERGY servers, enables Bergbahnen Kitzbühel in Austria to achieve maximum operational reliability and scalability. Fsas Technologies has realized a customized solution that meets high demands for availability and cost efficiency.

Challenge

The customer needed an renewal of their existing VMware infrastructure. As a long-standing partner that has been providing KitzSki's server infrastructure for over two decades, Fsas Technologies was once again commissioned to meet the growing demands for a more flexible and future-proof infrastructure. Essential was the uninterrupted operation across multiple distributed locations, especially during the critical winter season.

Solution

A highly available multinode Proxmox Ceph cluster was implemented on PRIMERGY RX1440 M2 servers. The servers were strategically distributed across multiple locations, supplemented by a dedicated tiebreaker node. A Ceph configuration and dedicated fiber optic connections for communication ensure maximum data availability and performance.

Results

The new solution ensures maximum availability in continuous operation, optimizes operating costs, and increases flexibility through an open-source platform. It also guarantees optimal performance, easy scalability for future growth, and reliable local support.

What truly distinguishes our long-standing partnership with Fsas Technologies is the personal contact and the certainty of always having a local contact person. This direct line was crucial to implementing such a robust and reliable solution.

Stefan Niedermühlbichler, IT Team Lead, Bergbahn AG Kitzbühel

KitzSki relies on Fsas Technologies and Proxmox VE for a future-proof IT infrastructure

The customer
KitzSki (Bergbahn AG Kitzbühel) is a leading cable car company in the Alps and operator of one of Austria's most renowned ski resorts. A reliable IT infrastructure is crucial for the smooth operation of cable cars, the control of snowmaking systems, online ticket sales, processing weather and piste data, personnel management, and many other operational processes that enable guests to enjoy year-round mountain experiences.

Industry
Winter Sports Infrastructure

Location
Austria

Website:
www.kitzski.at

Employees
Approx. 300 (annual average)

Growing Demands for Availability and Flexibility

KitzSki required a modernization of its IT infrastructure and the assurance of maximum operational reliability. The existing VMware infrastructure needed to be renewed and adapted to growing demands. Uninterrupted, cross-location operation was of paramount importance, especially during the critical winter season. The new solution had to be cost-efficient, flexible, and capable of seamlessly continuing operations even in the event of an entire site downtime.

The Solution: A highly available Proxmox Ceph cluster based on PRIMERGY

Fsas Technologies, together with partner Cibex IT Solutions, developed a highly available multinode Proxmox Ceph cluster based on five PRIMERGY RX1440 M2 servers. The servers were strategically distributed across multiple locations, with a dedicated "tiebreaker" ensuring system integrity in case of failure.
For maximum data security and availability, Ceph stores each data block four times on different physical hard drives, with at least two copies always located at different sites. This guarantees continued operation even if an entire site fails. Dedicated fiber optic connections (LWL) for Ceph and Corosync, as well as fast NVMe hard drives and redundant 100Gbit/s site networking, ensure excellent performance.

Optimized Operation and Future Scalability

Building on a partnership that has grown for over two decades, the migration of the hypervisor platform was also seamlessly realized. The transition took place in several phases: After successful tests and trials of various failure scenarios, the migration of virtual machines began in late autumn, before the winter season. The majority of systems were successfully migrated, ensuring a seamless transition to main operations.
The main advantages at a glance:

- **High Operational Reliability:** Continuous operation is guaranteed at all times through extreme redundancy and site distribution.
- **Cost-Effectiveness:** Optimized operating costs by switching to a flexible open-source solution.
- **Strong Performance and Scalability:** Powerful hardware and cluster design enable optimal performance and uncomplicated expansion for future growing demands.
- **Reliable Service:** Proven Fsas Technologies hardware quality and local support ensure fast assistance.