

# Limitis

INTERNET **SERVICE** PROVIDER



**High Availability in the High Mountains**



The Internet service provider Limitis GmbH has a competent and service-oriented team that supplies over 5,000 companies with its internet solutions every day. The company is located in Merano, Italy. It is focused on providing IT and managed service models for e-mail as well as Microsoft Office 365, online back-up, cloud storage and WLAN support for small companies that do not have their own IT departments. Its main customer base is located in the South Tyrolean area, a flourishing economic region mainly driven by family businesses and small enterprises.



## Challenge:

To survive in the competitive market segment and differentiate itself from the larger, international competition, Limitis aimed **to be the distributor** as well as **the owner of their own products** which were based on their hardware and IP addresses. "As an Internet service provider, we want to do as much as possible ourselves so that we can act freely in this niche" reports Markus Gufler, technical director and one of Limitis' two managing directors.

In regards to data storage, the QSAN AegisSAN LX460 storage system had served Limitis well for years but, due to changing requirements, had gradually **reached its performance and capacity limits**.

With the new system, Limitis wanted to:

- **Use the backup plan and the primary system in an active-active mode** to ensure the best possible use of the purchasing power available.
- **Divide the new system in the data center into two fire compartments** with separate power supplies.
- **Find a balance** between, on the one hand, **reliability** and **scalability** as well as **speed** and **performance** and, on the other, the **price**.
- **Replace existing data storage capacities** and **have the option to create additional ones** if needed.

# Customer Feedback

"To offer partners and customers a good and reliable basis, we needed our own solution with which we can fulfill the partners' requirements. We never add any services from third parties, as we always want to freely dispose of the customization options and control them. We didn't want to buy a system that would just barely meet our needs. We also wanted to be flexible when a big order comes in: planning, commissioning, and implementing a new system can take too long. The best option for us is just to add new hardware and change the configuration in such a scenario."

Markus Gufler, technical director

## Solution:

After exploring the market, Limitis decided to collaborate with N-TEC. The close cooperation between N-TEC and Open-E also inspired Limitis to take a closer look at Open-E JovianDSS, which was shortlisted a few years earlier. Back then, Limitis eventually opted for a different solution.

However, due to their new acquisition, the experts from Limitis had a chance to become reacquainted with Open-E's software and decided to give it a go. *"First of all, a few years later, I was convinced by the functions. And the high availability solution's price looked attractive for us as well."* - recalls Gufler.

## Hardware:

The selected solution consisted of two rapid NAS JSS 224 - 8 servers, each with two 8C Intel Skylake CPUs, 128GB RAM, and six 10 GbE 10GBASE-T ports. The connection was established by two NETGEAR ProSA-FE type XS716T switches. The data is currently on 19 Seagate Nytro SSDs with 1.92 Tbytes of storage capacity each.

The system itself is currently at 50 to 60 percent full. As was requested, there was room for improvement as this solution could easily be expanded given that every rapid NAS JSS 224 - 8 server had 24 2.5-inch slots. The built-in SSDs also improved the performance of the system which justified the high surcharge compared to HDDs at the time of purchase.

The data storage was located entirely on the boxes from N-TEC. Expansion of the **data storage capacity** can be done quickly and easily at any time.

# Software

To ensure high availability at two locations over a long distance, Open-E JovianDSS was chosen as the operating system. Open-E JovianDSS Advanced Metro HA Cluster Feature Pack licensing was chosen specifically as it supports a connection of up to 80 kilometers. Limitis used this system in its configuration in two different fire compartments. As for the offsite backup, Limitis first saved the data inside the building on its own system and then stored it asynchronously in a well-protected, secure location about 30 kilometers away.

The upstream portion of the storage system consisted of four servers, trimmed for high performance, with powerful processors and RAM. The servers use the Proxmox virtualization solution and unite around 80 virtual machines. Some of the VMs included web servers with 1,000 or more pages while others only ran single projects.

In order to know how and what has been set and configured as well as to be able to control the system in the future, the Limitis technicians implemented the entire system themselves with the support of N-TEC. Now, a few months after its implementation, the system has met all the expectations and customers' satisfaction levels have also risen due to the services offered running smoother than before.

Limitis is now considering setting up an additional system in parallel, which would function more like a long-term server for data archiving and, given that it'd be an archive, concerns about failure, safety and speed wouldn't be as significant. That being said, at the moment, this is all just in the planning stages of their next project.

## Customer Feedback

"We sleep much better now than with the previous solution. As the system works consistently and quickly, we have significantly fewer support cases than previously when the system was reaching its performance limits."

Markus Gufler, technical director

# Technical Details

Total capacity:	32TB
High Availability:	Advanced Metro HA Cluster Feature Pack
Disk type:	SSD
Hypervisor:	Proxmox
License:	Open-E JovianDSS
Features:	Advanced Metro HA Cluster Feature Pack
Support:	3 years Standard Support
Network Configuration:	6x 10 GbE ports 10GBASE-T







# LIMITiS

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# About Limitis

Limitis has a competent and service-oriented team that supplies over 5,000 companies with its internet solutions every day. Their business is offering customers high-quality first-hand services whilst at the same time being a reliable and trustworthy partner. Limitis' server infrastructure is housed in a state-of-the-art South Tyrolean data center. It is personally looked after and monitored 24 hours a day, 7 days a week. As a quality provider, Limitis wants to impress with maximum availability and outstanding service.

For more informations about Limitis, visit [www.limitis.com](http://www.limitis.com)

# About N-TEC

As a German company, N-TEC has acquired an excellent reputation in the past few years due to its comprehensive management functions, service friendliness, scalability and, last but not least, the reliability of its systems. N-TEC is the manufacturer of Direct Attached Storage (S-ATA, SAS and SCSI RAID solutions with SCSI, SAS and FC host connection), NAS (Linux OPEN-E and MS Win Storage Server 2008 R2), iSCSI and SAN solutions. N-TEC's systems cover a broad range of requirements starting with the entry-level system with 500 MB memory capacity through the medium-sized models and up to the 150 TB model. N-TEC also offers high availability clustered server and NAS concepts. When N-TEC develops its products, it places great emphasis on being able to guarantee the user a high degree of investment protection for continuously and rapidly growing data quantities.

For more informations about Limitis, visit [www.n-tec.eu](http://www.n-tec.eu)

# About Open-E

Open-E, founded in 1998, is a well-established developer of IP-based storage management software. Its flagship product, Open-E JovianDSS, is a robust, award-winning storage application that offers excellent compatibility with industry standards. It's also the easiest to use and manage. Additionally, it is one of the most stable solutions on the market and an undisputed price performance leader. Thanks to its reputation, experience, and business reliability, Open-E has become the technology partner of choice for industry-leading IT companies. Open-E accounts for over 30,000 installations worldwide. Open-E has also received numerous industry awards and recognition for its product, Open-E DSS V7.

For further information about Open-E, its products and partners, visit [www.open-e.com](http://www.open-e.com)

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