StarWind Virtual SAN® provides high availability for scientific data in AIDA (Aerosol Interaction and Dynamics in the Atmosphere) facility

In long-term research, high availability of scientific data is crucial, especially when it comes to world-class facilities, like AIDA. StarWind proved to be effective in that and easy enough not to make our researchers to waste their time on additional training.

Frank Schwarz, IT Administrator, KIT / IMK-AAF

KIT
Karlsruher Institut für Technologie

About the Company
Karlsruher Institut für Technologie
http://www.kit.edu/

Industry
Education

Contact Person
Frank Schwarz,
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Problem
Providing high-availability of scientific data in a world-class research facility 24/7 without spending the whole research budget.

Solution
StarWind Virtual SAN deployed instead of hardware NAS helped achieve a figure of 99.9986301% uptime with just two servers. All the downtime was basically planned maintenance, so problem is solved and 24/7 scientific data availability 365 days a year has been provided.

PROBLEM

In a research facility, such as AIDA (Aerosol Interaction and Dynamics in the Atmosphere), non-stop access to scientific data is very important, because researches from all over the world participate in the work. Finding a storage that would grant 24/7 data availability 365 days a year was quite a problem. Downtime during planned and unplanned maintenance has quite a high rate among typical shared storage and software-defined storage solutions.

"We had two QNAP NAS appliances and, well, let's just say we needed to replace them with something more satisfying for our current needs" - Frank Schwarz.

As the whole infrastructure was based on Microsoft products, one of the requirements was also complete compatibility with MS Failover Cluster. Basically, a simple, native to Windows, fault-tolerant and highly-available virtual storage.

SOLUTION

KIT / IMK-AAF deployed **StarWind Virtual SAN** on two servers with a RAID 10 array of 16 SAS HDD, 4 TB each. Thanks to synchronous replication resulting infrastructure hasn't failed even once. Approximately **99.9986301% uptime** achieved so far with total downtime due to planned maintenance equal to 1 hour per month.

Frank Schwarz said – *"I don't think I ever had less work than I have now with StarWind. It is easy to use, no one needs any help. Besides, it just does not fail. After what we have gone through with hardware NAS here in AIDA, StarWind VSAN is a relief."*

StarWind Virtual SAN maintains high performance with 24/7 scientific data availability, allowing all AIDA researchers from all over the world to continue their work whenever they need to. Achieving such a high uptime rate on just 2 physical nodes is nearly unprecedented, that is why **StarWind** is seen as the most rational choice at KIT / IMK-AAF.

To learn more, visit **www.starwind.com** ➔