



DataCore Software Virtualizes FusionIO Solid State Disks (SSDs) and HP Storage Arrays into a High Performance and Energy Efficient SAN for Niedax Group

Performance plus Green Savings: DataCore Storage Virtualization Software takes high performance and energy efficiency to a new level

Linz (Rhine), Munich – DataCore Software, today reported that its storage virtualization software has enabled the NIEDAX GROUP to combine traditional storage arrays – already installed – with new high-speed Solid State Disks (SSD) to create a Storage Area Network (SAN) to meet their growing data center needs. DataCore virtualization software combined with FusionIO NAND flash memory SSD technology has achieved a new level of performance, high availability and energy efficiency – running in production at 100,000 IOPS and 600 MBs per second of throughput, while only consuming 15 Watts of energy versus 4000 Watts with hard disks alone.

The NIEDAX Group, one of the largest electrical installation manufacturers worldwide, needed to upgrade its systems to meet the growing demands of its ERP system which is based on Microsoft Dynamics. In addition they wanted to migrate their base of over 40 VMware VMs onto a more reliable SAN infrastructure. The major requirement, however, driven by the ERP requirements was for a new SAN storage solution that could deliver higher performance, capacity and availability than the existing hardware SAN. NIEDAX utilized a consultancy firm to calculate and assess its data requirements and found out that if it continued to use a traditional hardware SAN it would need to add and invest in at least another two storage systems, each with a minimum of 40 Fibre Channel disk drives, to achieve the required performance and high availability. This would be a significant investment and greatly add to the ongoing space and energy costs – so alternatives were sought.

The Challenge: Having already seen the value of using VMware for servers, NIEDAX wanted to know if there was virtualization solution that could do the same for their SAN storage. Additionally, it also had to meet the ERP performance requirements that were critical.

The company understood the value of virtualization – having evaluated the use of VMware ESX to virtualize a number of machines and realizing the benefits of going green by reducing power consumption and heating costs with servers. So, NIEDAX asked what they could do similarly for their storage. DataCore partner S&L Netzwerktechnik evaluated the requirements and then suggested and developed an alternative plan that could build on the company's existing investment and reduce their ongoing costs. The solution consisted of:

- DataCore SANmelody 3.0 software providing virtualization, performance- accelerating caching software and high-availability mirroring across the pool of storage arrays and SSDs;
- Integration of the existing HP EVA Storage Array;
- Integration and additional disks to the HP MSA Storage Arrays;
- The addition of high-speed FusionIO SSDs with NAND flash memory to boost performance and lower overall energy requirements.

The Solution: DataCore SANmelody 3.0 virtualization software runs on standard servers and enables cost-effective high availability via synchronous mirroring to occur between the



heterogeneous mix of SAN hardware. The DataCore solution facilitated NIEDAX GROUP using its existing hardware in combination with the required expansion and new SSDs in order to obtain higher performance and to grow capacity. In a similar manner to what VMware had done for their servers, DataCore virtualized and made their storage hardware more efficient and cost-effective.

"We are happy with our DataCore investment and we are benefiting from the many functional and financial benefits of putting it in use," stated Oliver Bauer, Team Leader Administration / IT. "The SAN now enables flexibility in administration, ease of expansion and the ability to dynamically allocate storage where and when we need it. DataCore caching accelerates overall performance and delivers a much higher data throughput. The software approach ensures the ease of transfer and the ability to use SAN-wide features on different hardware arrays and devices. Thus it is a very cost-effective way to mirror data. For our demanding ERP application, the fact that we could run FusionIO Solid State Disks under the DataCore virtualization and management solution was critical. We gained tremendous performance from adding FusionIO SSDs and overall we reduce energy and cooling costs." In terms of background, it is important to note that the demanding databases that support ERP systems, especially in manufacturing applications such as at the NIEDAX Group, often do not consume very large amounts of storage. Instead, however, they do require extremely high performance. With the Fusion IO NAND SSD flash memory technology in place, the NIEDAX Group was able to achieve 100,000 IOPS (Input/Output Operations Per Second) and rates of 600 MB/s with only 15 Watt power consumption, when running in production. By comparison, if they had used conventional Fibre Channel storage disks alone to achieve these levels of performance, they would have consumed somewhere around 4,000 Watts.

"With the implementation of DataCore's virtualization storage software we were able to meet all of the customers technical requirements," said Alwin Kohl, consultant at S & L Network Technology Ltd. "In addition, with the combination of DataCore's virtualization software and FusionIO's SSD NAND flash memory we were able to protect NIEDAX's current investments in their SAN and extend it – making it green and significantly reducing long-term costs for our customer."

Through the successful completion of the NIEDAX Group deployment and other customer projects, S&L Core Data Network GmbH has gained the status of being a DataCore "Gold" partner in addition to its certifications as Microsoft Gold Partner and Citrix Gold Partner. With DataCore's storage virtualization certification, S&L Network Technology Ltd. Has proven it has the expertise to implement virtualization technology across servers, storage and desktops.

"We are pleased that S&L Network GmbH has earned its designation as a Gold partner through its professional implementation of virtualization projects with DataCore," said Siegfried Betke, Director of Central Europe at DataCore Software. "We know the value that our customers place on having experienced experts that they can rely on, and this is particularly important with virtualization projects since many customers have realized the benefits of a comprehensive 3-dimensional approach to virtualization covering desktops, servers and storage."

About the NIEDAX GROUP

The successful history of the company started back in February 1920, when Alexander NIEDergesäß and Fritz AXthelm founded NIEDAX. They identified early on the growth of electricity and the rising need for a product range of solutions to cover distribution and management from cable systems to installations.



Today the famous name NIEDAX also represents important subsidiaries Kleinhuis, RICO and Fintech. Together they form the NIEDAX GROUP, which now have been in business for over 10 years. The company is a modern holding company and among the biggest electrical installation manufacturers worldwide. With more than 32.000 products, the NIEDAX GROUP offers almost everything that is needed for the modern, forward-looking electrical installation. For more, go to

<http://www.niedax.de/page/index.php?page=niedax-group&lang=eng>.

About DataCore Software

DataCore Software develops the storage virtualization software needed to get the highest availability, fastest performance and maximum utilization from storage resources in physical and virtual IT environments. It provides the critical 3rd dimension on which the success of server and desktop virtualization projects hinge, regardless of the models and brands of storage devices used. For more information, call (877) 780-5111 or visit www.datacore.com.

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