DATACORE

MSP Supports Rapid Growth with
Software-Defined Storage

CHALLENGES

Rapid growth led to degradation in performance and response times for mission-critical application Infrastructure refresh needed to eliminate storage-related I/O bottlenecks, reduce costs, and extend life of repurposed hardware

SOLUTION

DATACORE | SANsymphony

USE CASES

Eliminate Performance Bottleneck

Data Center Modernization

INDUSTRY

Managed Service Provider

RESULTS

5X to 10X faster storage performance

4X faster application response times

2-node high availability

1 platform to support HCI and open architectures

No need to purchase additional hardware

Extended life of existing systems

LAW FIRM SUPPORTS 10X MORE USERS WITH SDS

A law firm serving the real estate industry grew to ten times its original size. This rapid growth had an averse affect on the firm's mission-critical vertical application. Users began to experience degraded performance and response times, often waiting up to 15 minutes for the unresponsive application, which brought businesses to a standstill.

The firm wanted to avoid a full hardware refresh by increasing available RAM. However, while they were able to double the RAM of the servers supporting their mission-critical application, they failed to solve the performance issues. They considered other upgrades such as new SSD drives but quickly determined that there were other limitations in the motherboard architecture and a full refresh of the existing infrastructure was most likely the right answer. They turned to LAN Professionals, an IT Consulting Firm located in the Salt Lake City valley area. The challenge for LAN Professionals was how to conduct an infrastructure refresh that would:

1 Eliminate storage related I/O bottlenecks

2 Improve application performance and responsiveness

3 Reduce the costs and complications associated with an infrastructure refresh

4 Extend the life of repurposed hardware

SOLVING PERFORMANCE ISSUES FOR CASE MANAGEMENT

LAN Professionals recommended a hyperconverged deployment option as an ideal solution, but they wanted to avoid being locked into a single vendor and a specific deployment option, plus they wanted to continue to use existing hardware. With this in mind, they decided on a two-node, synchronously-mirrored hyperconverged setup to support the case management software and its heavy workload using DataCore software-defined storage (SDS) software as the backbone storage layer.

> *After installing DataCore, the difference was night and day, the SDS software immediately and significantly improved the performance of Lundberg & Associates' case management software and made it screaming fast— and that is still true today. We have experienced a 5X to 10X performance improvement using DataCore software."*
>
> **- Andrew Bouwhuis, It Manager at LAN Professionals**

THE REASONS FOR USING DATACORE SDS INSTEAD OF A TRADITIONAL HARDWARE-CENTRIC HYPERCONVERGED CLUSTER WERE THAT IT PROVIDED:

The flexibility to support both hyperconverged and open architectures with the same platform

The reliability of a high availability (HA) mirrored environment that is achieve with only two nodes

Higher performance due to auto-tiering, parallel I/O, and advanced caching

Once DataCore SDS was deployed, the case management software used by the law firm went from being unresponsive to providing iometer response time test readings of 2.5 milliseconds to .7 milliseconds and it continued to improve the more it continued to run.

LAN Professionals plans to bring SDS technology to larger customers that need to replace complex hardware environments because of the flexibility it offers. "It's just easier and I don't have to buy costly hardware, there is no comparison in terms of cost and workability with hardware; I can add any hardware, any software, and build a system however I want to," said Bouwhuis.

BEFORE DATACORE SDS

LEGACY APPLICATION SERVER CONFIGURATION

OPERATING SYSTEM: Microsoft Windows Server 2012
PROCESSORS: 2x Intel Xeon E5-2650 v2 2.6GHz
MEMORY: 64GB
STORAGE: 5TB, 10K SAS, Raid5

AFTER DATACORE SDS

NEW APPLICATION SERVER CONFIGURATION POWERED BY DATACORE SANSYMPHONY

OPERATING SYSTEM: Microsoft Windows Server 2016
PROCESSORS: 2x 2 Intel Xeon E5-2630 v4 2.2GHz
MEMORY: 256 GB
STORAGE: 7.2 TB, 10K SAS, Raid 5 + RAID1 447GB SSD

SDS AS THE FOUNDATION TO PROVIDE MSP SERVICES

Like many IT consulting firms, LAN Professionals researched using publiccloud resources for their organization and their customers. However,they found offerings from AWS and Microsoft Azure to be expensive inthe long run, complex to run effectively, and somewhat inflexible. Theyalso determined it would limit their ability to provide the on-demand control they prefer, and to offer the personalized support their customers expect.

Private cloud services are one offering that many small and medium businesses would like to benefit from but lack the expertise and resources to implement on their own. In addition, many feel they may not have enough data to make such an investment worth the expense or prefer to avoid the possibility of having their data stranded in the control of a large cloud provider in an off-site repository they are unfamiliar with.

As a result, LAN Professionals began the process of repurposing and testing the older white-box hardware from the law firm for use in a virtual private cloud initiative supported by DataCore SDS for the storage layer. The environment will initially support

Microsoft Hyper-V, Terminal Services, Active Directory, Office 365, and Time-Clock software as well as flat files and limited database capabilities. The intention is to first provide MSP services to small business customers with 20 to 75 users, then refresh and modernize the cloud hardware and eventually roll the service out to larger customers with 100 users or more while migrating them off local storage when possible unless otherwise necessary.

By reusing hardware, the consulting firm eliminated the need to purchase additional hardware. The performance technologies in DataCore SDS extend the life of the system, while data services like thin provisioning allow them to make the most effective use of storage capacity across customers.

In the future, IT consulting companies like LAN Professionals can use DataCore Insight Services (DIS) to monitor storage environments across environments and geographies, taking advantage of predictive insights to solve issues before they become problems.

Like many other modern IT organizations, they are taking advantage of the power and flexibility of DataCore SDS to make the most efficient and most flexible use of storage while meeting the business needs for performance and agility.

REQUEST A DEMO

Discover the Ultimate Flexibility of DataCore Software

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DataCore software-defined & hyperconverged storage solutions reduce costs, eliminate vendor lock-in, and deliver ultimate flexibility in how organizations manage, build and modernize their storage infrastructures.

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