




Energy Management Leaders Trade Up to HCI with Storage Spaces Direct

The Energy Authority deploys a DataON Kepler 2-Node HCI appliance for its regional office

The Challenge

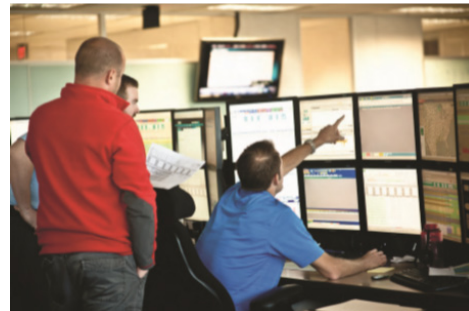


TEA's goals in updating its data center in its regional office:

- Deploying a hyper-converged solution as a test case for an eventual main data center SAN phase-out
- Deploying a highly resilient storage solution at an affordable price
- Increasing performance with all NVMe flash solution and increasing storage capacity
- Integrating Storage Replica and Azure Site Recovery for disaster recovery

Company Overview

The Energy Authority (TEA) provides public power utilities with access to advanced resources and technology systems so they can respond competitively in the changing energy market. TEA offers portfolio management, Regional Transmission Organization (RTO) marketing management and trading, natural gas management, bilateral energy trading, power supply management and advisory services to over fifty public power clients.



IT Challenge: Find a robust, yet affordable, hyper-converged solution for its regional branch office and use as a test case for an eventual main data center SAN phase-out

TEA needed to update the aging storage solution in its regional office. For the past several years, TEA had deployed a Windows Server 2012 R2 Storage Spaces converged solution with Hyper-V servers and a DataON Cluster-in-a-Box (CiB).

Their data demands increased for workloads such as file server, domain control and analytics applications. TEA sought a highly resilient, highly available storage solution that could simplify and replace its converged network.

Lorenzo Hamilton, Enterprise Infrastructure Architect, TEA, said, "In the regional office, we don't need a huge SAN like we do with the main data center. We've been running Storage Spaces out there because SAN storage is too expensive. It's worked well, but we believe hyper-converged is the future. Storage Spaces Direct delivers the same performance and resiliency as a SAN without the cost or complexity."

For TEA, deploying Storage Spaces Direct in its regional office would be its first foray into hyper-convergence. With a successful deployment, TEA plans to phase out its main data center storage area network (SAN) and replace it with a hyper-converged solution.

TEA's goals in updating its IT infrastructure included:

- Deploying a hyper-converged solution in its regional office and use as a test case for an eventual main data center SAN phase-out
- Finding a solution with SAN-like capability and reliability, but without the cost
- Finding the right hardware vendor with whom to partner
- Increasing performance with all-NVMe flash solution and increasing storage capacity
- Integrating Storage Replica and Azure Site Recovery for disaster recovery

The Solution: DataON Kepler 2-node (K2N-108) hyper-converged appliances with Windows Server 2016 Storage Spaces Direct

"We chose Storage Spaces Direct," Hamilton said, "because we had spent five years moving from VMware to Microsoft. VMware wanted to charge us twenty-five thousand dollars for a 2-node vSAN license. Why would we choose them when Storage Spaces Direct is already included in Windows Server 2016?"

Because the regional office deployment was a test case, TEA didn't want to invest in a typical 4-node Storage Spaces Direct deployment. Initially, TEA considered another vendor, but Hamilton said, "there were too many choices, and nothing was certified." He continued, "We were already DataON customers and decided to look into their Kepler 2-node solution."

The Solution



- Windows Server 2016 Storage Spaces Direct
- Windows Server 2016 Storage Spaces Direct for software-defined storage at a fraction of the cost of traditional SAN or NAS arrays
- DataON DataON Kepler 2-node (K2N-108) hyper-converged appliance designed for ROBO & edge, optimized for performance

The Result



- Satisfied with a hyper-converged infrastructure, plans to replace legacy SAN with HCI
- Increased performance and storage capacity with all NVMe flash solution
- In final testing phase with Storage Replica and Azure Site Recovery integration before going into production

DataON K2N-108



- Hyper-converged appliance designed for ROBO and Edge
- Utilizes all-NVMe storage to accelerate workload performance
- Leverages 25/10GbE SMB3 RDMA fabric to connect the nodes
- Certified Microsoft Windows Server Software-Defined (WSSD) premium hyper-converged solution
- Certified Intel Select Solution for Windows Server Software-Defined Storage

DataON's Kepler 2-node hyper-converged appliance, designed for smaller, remote office/branch office (ROBO) deployments, was the perfect fit for TEA. TEA finalized on a DataON K2N-108 appliance with all-NVMe flash SSDs and 25GbE RDMA networking.

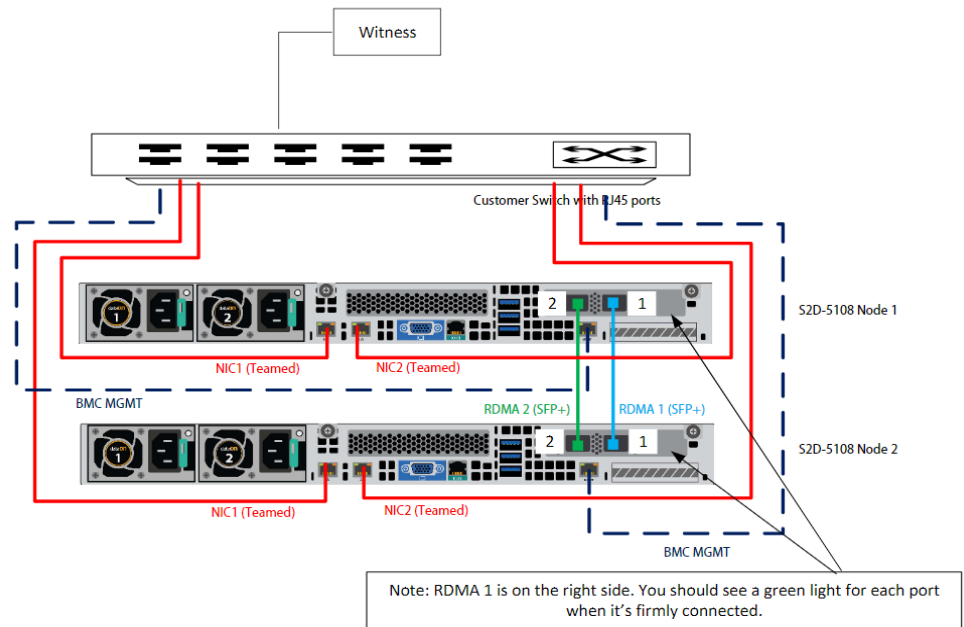
"We chose DataON," Hamilton concluded, "because their hardware was Windows Server Software-Defined (WSSD) certified, the highest certification Microsoft has for software-defined solutions."

The Results

"The migration to Storage Spaces Direct was clean. We used DataON's deployment scripts and also created our own." Hamilton said. "Automation is in the DNA of our company and we used those principals to simplify our deployment and management. It made all the difference and we are extremely satisfied with the results."

When asked about performance, Hamilton said, "The Kepler 2-node solution with Storage Spaces Direct blows away our SAN performance. An all-NVMe solution is simply the way to go," Hamilton said. "It's not just performance either. Two-way mirroring in Storage Spaces Direct offers the redundancy and resiliency we didn't have in our previous deployment. We also plan to utilize Storage Replica and Azure Site Recovery, providing better resiliency if our on-premise and off-site data centers go down."

"Once we've thoroughly tested Storage Spaces Direct, we want to replace the SAN in our main data center and deploy a complete Microsoft hyper-converged solution," said Hamilton.



www.dataonstorage.com

dataon_sales@dataonstorage.com

1.714.441.8820

Copyright © 2018 DataON. All Rights Reserved. Specifications may change without notice. DataON is not responsible for photographic or typographical errors. DataON, the DataON logo, MUST, and the MUST logo are trademarks of DataON in the United States and certain other countries. Other company, product, or services names may be trademarks or service marks of others.

About DataON

DataON™ is the leader in Microsoft® Windows Server software-defined solutions. Our company is focused on customers who have made the "Microsoft choice" to deploy Microsoft applications, virtualization, data protection, and hybrid cloud services. Our enterprise-level solutions are designed to provide the highest level of performance, manageability, and security offered, delivered as a complete, turnkey experience. DataON is a division of Area Electronics Systems, Inc.