

## Engineering Firm Chooses Microsoft HCI for Simplicity, Ease-of-Management and Cost

DEC upgrades to a DataON Integrated System for Azure Stack HCI with DataON MUST Pro



### The Challenge



- Refresh legacy software defined infrastructure with a streamlined, easy to update and manage hyper-converged infrastructure
- Get a good price and performance value solution
- Find a vendor that can address SMB needs with superior customer support

### Company

Founded in 1945, DEC has built a solid reputation as a premier civil engineering firm with expertise in public infrastructure, surface transportation, land development, hydrology and hydraulics, airports, ports, and harbors. Using GIS (Geographic Information System) to gather, manage and analyze data, DEC identifies and resolves potential engineering, environmental and planning problems well in advance. Headquartered in Houston, TX, DEC, employs 225 people among 7 offices throughout Texas

### Challenge

Adam Morris, Director of IT, DEC, was looking to update his legacy Microsoft Storage Spaces converged environment to a hyper-converged infrastructure (HCI). For him, it was important that his new solution provide similar or better performance to his current one, be easy to use, manage, and update, and be cost-efficient.

He also needed to find a vendor that could provide superior customer support and cater to the needs of a small company like his. "We're a small firm with seven offices and our requirements are fairly basic."

### The Solution



- DataON AZS-212 Integrated System for Azure Stack HCI in a three-node hybrid storage configuration
- NVIDIA/Mellanox ConnectX 25GbE RDMA networking
- Microsoft Windows Admin Center
- DataON MUST for Windows Admin Center
- DataON MUST Pro
- Azure Active Directory



### Solution

DEC was originally a VMware shop but had switched to Microsoft many years ago for its simplicity and cost. The company had Windows Server 2012 R2 licenses, which already included Hyper-V and Storage Spaces for virtualization and software-defined storage.

Morris liked the idea of a hyper-converged infrastructure (HCI). He could consolidate his infrastructure with a highly available, highly scalable virtualized solution that combined compute, storage, and networking on industry-standard hardware.



"When we heard about Azure Stack HCI, we're like, 'this is freaking awesome!'"

Adam Morris  
Director of IT  
DEC

## DEC workloads running on Azure Stack HCI

- SQL Server
- Large file server (20TB)
- SCCM/Endpoint Manager
- Web servers
- Active Directory
- DNS & DHCP
- Print server
- 3rd Party licensing services/ LMTTOOLS
- Dynamics SL
- ArcGIS Web server

He had looked at other HCI offerings from Nutanix, HP Simplivity, and Dell EMC. Their software included many enterprise features which a smaller company like DEC wouldn't use, and these solutions would have cost hundreds of thousands of dollars for just the software alone.

DEC had logged nearly a decade on its Storage Spaces deployment from DataON with great success. Morris turned once again to DataON and discussed potentially buying a Windows Server 2019-based HCI solution.

However, he found out that Microsoft was about to release a new Azure Stack HCI operating system. He was excited about the streamlined new offering because it focused on hosting virtualized workloads and delivered faster performance than a traditional server OS. Azure Stack HCI was also Hyper-V based so it would already be familiar, and Morris was confident about the reliability of Microsoft solutions.

“We looked hard at the price/performance value between DataON & Microsoft and the Nutanix solutions. DataON was way up here, Nutanix was way down there. Azure Stack HCI and DataON were just a better value.”

## Run your multiple IT roles on Windows Server Modernize datacenters with Azure Stack HCI

### Windows Server

Multi-roles server with enhanced security and a bridge to the cloud

Supports all traditional server roles such as Active Directory and identity management, file serving, print management, etc.

Can be used to run demanding workloads directly on the metal

Has built in guest virtualization rights

Will accrue all guest innovations

Support Azure hybrid benefit to simplify migration to the cloud

### Azure Stack HCI

Single focus Hyperconverged solution

Native Integration with Azure Arc:

- Self-service VMs
- Multi-cluster monitoring
- Auto-host management

Scalable virtualization and storage

Highest-performance for virtual workloads

AKS on Azure Stack HCI to deliver PaaS on-prem

Will accrue all HCI innovations (KSR, stretch cluster)

Free ESU for WS & SQL Server 2008/R2, 2012/R2 workloads

Morris chose a DataON AZS-212 Integrated System for Azure Stack HCI. He liked that it had a budget-friendly price point that would be attractive for small business such as DEC. It also featured a new subscription model for Azure Stack HCI, which was appealing, because it meant that DEC would always have the latest features and fixes. Also, ongoing support from DataON and Microsoft would be included.

*“We looked hard at the price/performance value between DataON & Microsoft and the Nutanix solutions. DataON was way up here. Nutanix was way down here. We just couldn't justify buying Nutanix. Azure Stack HCI and DataON were just a better value.”*

*Adam Morris, Director of IT, DEC*

## The Result

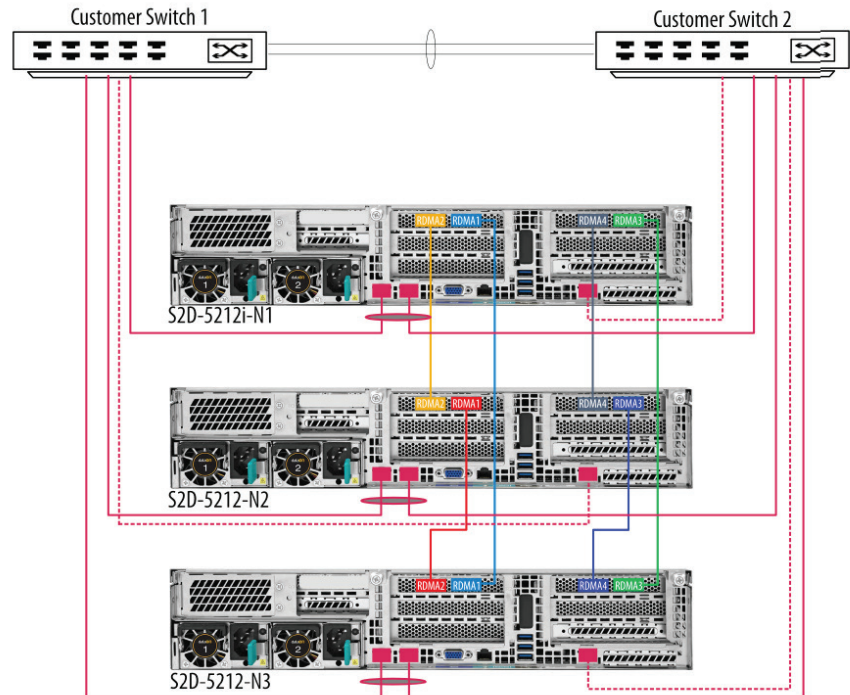


- Refreshed legacy software-defined infrastructure with a streamlined, easy to update and manage DataON Integrated System for Azure Stack HCI
- Migrated legacy infrastructure within three hours and only a minute of downtime with new faster networking
- Got a good price/performance value solution without paying for extra features it didn't need
- Simplified cluster updates, saving hours with Windows Admin Center and DataON MUST Pro
- Found a vendor that provided superior customer support, valued input, and addressed its SMB needs

## Results

The migration from the legacy infrastructure to the DataON AZS-212 Integrated System went smoothly for DEC. Morris created a migration process and replicated his Windows Server 2012 R2 cluster onto the new Azure Stack HCI cluster. He completely migrated a couple of volumes within three hours, with only about a minute of downtime.

Morris noticed right away that his new solution was noticeably faster. “We’ve noticed quite a bit of performance increase just in the responsiveness of the interface. SMB traffic seems to be a little faster and our file server transfers seem to be more responsive.”



*New Azure Stack HCI delivered as an Azure hybrid service*

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Morris also likes the management of his Azure Stack HCI solution through Windows Admin Center. While he’s disappointed that it doesn’t have all the features from Cluster Manager, he feels that he can use it for all of his basic tasks.

Windows Admin Center now included cluster aware updating (CAU), a feature that was extremely important to Morris. Microsoft’s CAU automated the software updating processes on DEC’s cluster, while maintaining availability, something his previous infrastructure was not able to do.

In addition, DataON included MUST Pro with DEC’s new Integrated System. MUST Pro integrates with Windows Admin Center to ensure that servers have the same OS version, drivers, firmware, BIOS, and BMC, and checks the drivers and firmware for network cards, host bus adapters, and SSD and HDD drives.

## Tips

- Take the deployment slowly. Do the homework. If you don't have a lot of experience with Hyper-V, take it extra slow
- Build test machines and do test migrations to know what happens when you click different buttons
- Learn Windows Admin Center and save time, because you can do most of what you need using it

Morris is excited about having automated software updating that actually works. "It only took a few clicks to start the process. It took a while before it finally finished and then poof, it's done."

*"I really like Azure Stack HCI. And I like the management through Windows Admin Center. And the automated update procedure through Windows Admin Center and MUST Pro really worked."*

*Adam Morris, Director of IT, DEC*

Morris had enjoyed his experience working with DataON. "I love the fact that I can get on meetings with you guys and talk to you. And it really helps know that you guys are willing to talk to customers like us that are on the small side. And value our input."

## Tips

When asked, Morris offered a few pieces of advice. He said, "Take the deployment slowly. Do your homework if you don't have a lot of experience with Hyper-V. One the main reasons [our] deployment was painless was because I've been working with Hyper-V.

He also suggests learning Windows Admin Center because you can do most of what you need with it, "and build test machines and do test migrations. I would do all of those multiple times over to make sure [you] know what happens when you click all the different buttons, before you get into production. That's probably the biggest thing."



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## About DataON

DataON is a hybrid cloud computing company focused on delivering Microsoft Azure Stack HCI, on-premises compute and storage systems, intelligent edge AI/ML appliances and Microsoft Azure hybrid cloud services. Our company is helping enterprises and customers who have made the "Microsoft choice" to modernize their IT with Microsoft applications, hybrid cloud workloads, Hyper-V virtualization, and data protection. DataON has deployed over 850 HCI clusters and 150PB of storage. Our enterprise-level solutions, delivered as a complete, turnkey experience, are designed to provide the highest level of performance, manageability, and security offered. DataON is a Microsoft Gold Partner, Microsoft Cloud Service Provider (CSP), and an Intel Platinum Partner.