

# Wine Country City Entrusts Microsoft as IT Backbone

The City of Napa transitions to a DataON switchless solution for Azure Stack HCI and backups with Veeam Availability Suite



## The Challenge



- Find a cost-effective solution to meet the city's performance and budgetary requirements
- Choose a solution that can last beyond a typical five-year lifecycle
- Find a solution that ensures zero downtime service for its emergency services and 911 call centers
- Simplify data center management for its small IT staff

## The Solution



- **Primary production server** – DataON K3N-216 switchless solution for Azure Stack HCI with Intel® all-NVMe flash storage
- **Backup server** – DataON HCI-212 solution for Azure Stack HCI with hybrid storage solution and Veeam Availability Suite
- **Edge solution** – DataON K2N-108 switchless solution for Azure Stack HCI with Intel® all-NVMe flash storage
- DataON MUST monitoring and management software tool for Windows Admin Center

## Organization Overview

The City of Napa is the second largest city in California's prestigious wine country with over 80,000 residents. Known for being one of the World's Great Wine Capitals, the City of Napa employs a small IT professional team that manages services for seventeen departments, including emergency services that serve the entire County of Napa.

## IT Challenge

Like many state, local and education (SLED) government agencies, the City of Napa Department of Information Technology works on a tight budget. When looking to refresh its IT infrastructure, the team needed a high performing and resilient solution that would ensure little to no downtime for its emergency services and 911 call centers. The solution needed to be reliable, as the team anticipated that it would be used past a typical five-year hardware life cycle.

## The Solution

In 2015, the City of Napa's IT department became interested in Storage Spaces, Microsoft's first entry into software-defined storage. Storage Spaces was designed to provide an affordable, resilient and high-performance solution to get the density that was cost-prohibitive in a SAN. The team was already using Microsoft Hyper-V and wanted to standardize on an all-Microsoft platform for its data center.

The city's first foray into Microsoft storage-defined storage was a DataON Cluster-in-a-Box (CiB) storage solution running Windows Server 2012 R2 and Storage Spaces. During the DataON CiB's life cycle, the City of Napa saw the value of choosing DataON when the team faced a significant service disruption in its 911 call center and emergency services. "DataON loaned us a JBOD so we could maintain service," said Owen Hershey, Systems Administrator, City of Napa. "This helped us avoid service disruption to our residents and proved DataON's commitment to us as a customer."

When it came time to refresh its infrastructure, the City of Napa again chose DataON. "Our on-premises system needs to be fast, because it supports our public safety functions," said Garrett Brown, Network Systems Analyst, City of Napa. "The solution had to be all-flash for the computer-aided dispatch (CAD) software we run in the 911 call and dispatch centers and for emergency services."

For its primary data center, which handles the bulk of the workloads for nearly all its departments, it chose a DataON Kepler switchless solution for Azure Stack HCI. The solution consisted of two DataON K2N-216 server nodes with Intel® NVMe flash storage. Azure Stack HCI allows the two nodes to be directly connected, eliminating the need for a new backup solution, the team chose a DataON DCS-5212 with hybrid storage. Its high-capacity HelioSeal® hard drives from Western Digital provide scalable capacity to handle the City of Napa's growing amount of data. The solution was coupled with the Veeam Availability Suite, which they used to migrate data from their legacy infrastructure to the new Kepler switchless solution. DataON solutions are validated as Veeam Ready, guaranteed to work with the Veeam Availability Suite for backups and data management.

For water and sanitation departments, the City of Napa chose a DataON Kepler switchless solution for Azure Stack HCI with two DataON K2N-108 server nodes. The platform would be dedicated mostly to running its supervisory control and data acquisition (SCADA) software that monitors and manages the City of Napa's water and sewage systems.

## The Result



- Stayed on budget without incurring extra fees for virtualization, software-defined storage and networking
- Ensured critical systems stay running with a redundant, three-way mirror solution
- Improved overall performance by 3x with all-NVMe flash and RDMA networking
- Received outstanding support from DataON



“The way DataON integrates everything, it was a turnkey solution that just works. I know that it’s just going to keep working for our 911 dispatch system.”

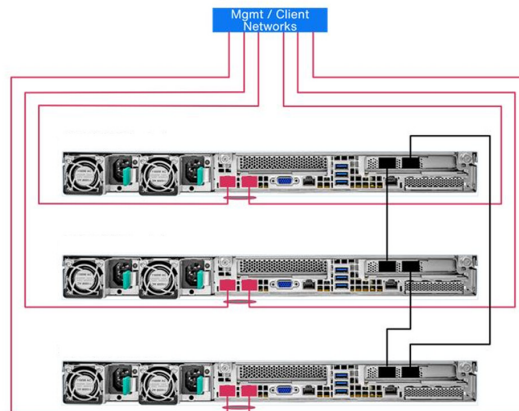
Owen Hershey  
Systems Administrator  
City of Napa

## The Results

Configuring, migrating onto and implementing a new infrastructure can be stressful, especially with a lean IT team. According to Hershey, “DataON provides an ideal turnkey on-premises solution that just works. DataON’s team goes above and beyond to support us.”

“With an Azure Stack HCI solution, it’s easy to spin up VMs. It doesn’t cost anything extra, and we can ensure our workloads have high performance,” Hershey said. “After migrating to the new DataON and Microsoft infrastructure, we noticed a 3x increase in performance. Using the Veeam software also made simple what could have been a difficult migration.”

### DataON Kepler 3-Node Switchless



The City of Napa is in the process of adding another DataON S2D-5216 server node to its primary DataON K2N-216 cluster. According to Brown, “Server downtime can bring down a call center. That’s why a shared infrastructure is important. You need redundant systems sitting on redundant systems.” The additional node will increase resiliency by moving from a two-way to three-way mirroring configuration. Because their DataON K2N cluster is an Azure Stack HCI solution, the team doesn’t have to buy a switch to connect the nodes, which saves them money. The process is simple and straight forward and consists of copying and deleting volumes from a two-way mirror configuration and transferring to a newly created three-way mirror volumes.

## Advice for Refreshing Your Infrastructure

“Choose a Microsoft infrastructure,” Hershey and Brown said. “Microsoft’s Windows Server enterprise agreement for government agencies provides significant cost savings.” Because many government IT departments already use virtualized deployment models with Microsoft Hyper-V, they’ve already paid for a hypervisor platform. In addition, software-defined storage and networking are also included at no extra cost. VMware and Nutanix charges extra fees for software-defined storage and networking.

Hershey and Brown also said, “Choose DataON. The support they’ve provided us is unparalleled. Small IT departments like ourselves are always busy working on many projects. If we have a hardware or Microsoft problem we can’t immediately solve, we can call the DataON support team and get a quick answer.”

## About DataON

DataON is a hybrid cloud computing company focused on delivering Microsoft Azure Stack HCI, on-premises storage systems, intelligent edge appliances, and cloud-based Microsoft Azure Services. Our company is helping enterprises and customers who have made the “Microsoft choice” to modernize their IT with Microsoft applications, virtualizations, and data protection through a complete and turnkey experience. With over 650 HCI clusters and 150PB of storage deployed, DataON enterprise-level solutions 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.

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