

# YP Simplifies Host Exchange Storage Infrastructure with Microsoft Server 2012 R2 Storage Spaces



DataON SoFS, JBODs, and Windows 2012 R2 optimize YP's Microsoft Exchange deployment and reduces exchange server by 4x

## The Challenge



YP wanted to refresh a legacy SAN in order to simplify its storage infrastructure, reduce costs, and improve performance of its business-critical high I/O applications.

## Customer Background

YP<sup>SM</sup> is a leading local marketing solution provider in the U.S. dedicated to connecting local businesses with consumers. YP's flagship consumer brands include the YP<sup>SM</sup> app, yp.com and The Real Yellow Pages<sup>®</sup>, which are used by nearly 60 million visitors each month in the U.S. With roots in the legacy Yellow Pages, the more than 100-year old company re-branded itself in 2012 as it expanded into digital advertising. The company had to grow its IT services to support thousands of new marketing consultants and customer service professionals across the country, who, together, are servicing nearly half a million advertisers. More than 60TB of data and up to 10,000 corporate users forced YP to re-engineer its storage infrastructure, which included moving from a traditional SAN to a cluster-based Microsoft Windows-based storage environment.

## The Solution



- Microsoft Windows Server 2012 R2 Storage Spaces
- 8 DataON Scale-out File Servers (SoFS)
- 8 DataON DNS-2660 (JBOD) HDD and SSD storage enclosures

## IT Challenge – Replace a Legacy SAN to Simplify Storage, Reduce Costs, and Improve Performance of Business-critical Microsoft Applications

The criticality of YP's I/O processes became paramount as the company grew its services beyond simple cataloging of local information into driving connections between merchants and customers. With billions of events processed every day, the company needed high availability with a scale-out storage concept that wouldn't smother the budget. A Microsoft software-defined storage file system seemed to be the answer.

YP's goals in moving to Microsoft Storage Spaces included:

- Simplify the Microsoft infrastructure
- Reduce the costs of running a proprietary SAN environment
- Eliminate ongoing bugs and technical challenges inherent in the legacy SAN
- Replace multiple vendors with one vendor
- Improve scalability and application availability

## The Result



- A 75% improvement in efficiency by offloading CPU traffic to the NIC with RDMA
- A reduction in Exchange servers from 32 to 8
- Better performance and a longer shelf life with low-cost commodity hardware
- Reduced costs and simplified management over proprietary SAN environment
- More control with existing Microsoft infrastructure

## The Solution: Microsoft Windows Server 2012 Storage Spaces

YP found that the benefits of moving to Storage Spaces far outweighed the benefits of staying with its traditional SAN. It replaced an iSCSI SAN with Microsoft Windows Server 2012 Storage Spaces using hyper-converged cluster appliances from DataON. This allowed YP to use Windows Server 2012 R2 as the infrastructure for a complete, end-to-end compute, storage, networking, and management stack.

"Microsoft has shifted the game," said Eric Pritchett, Lead System Administrator at YP.

"With Storage Spaces, we no longer have to spend a premium on features typically found in many SANs. Most features we need are now included in a single Microsoft Windows license. Hence, our support contracts and product licensing with various vendors is simpler now. Overall, this provides much more control over our infrastructure."

YP implemented the DataON certified and validated Scale-out File Servers (SoFS) platform with DataON DNS-2660 (JBOD) SSD and HDD storage enclosures to run its Microsoft Exchange environment. YP also expanded its DataON CiB platform with DataON all-flash arrays to scale its Microsoft SQL Server workloads.



*"Together, Microsoft and DataON have helped to make our Exchange environment as simple as possible, virtually eliminating the complexities that come with scaling to a large number of users. We have fewer servers and better hardware—all significantly cheaper than what we paid five years ago. We're already familiar with most Microsoft products, we know the Windows architecture, and Microsoft provides training as needed. The change to Storage Spaces was a non-issue."*

**Eric Pritchett,**  
Lead Systems Administrator, YP

## Microsoft Exchange 2016 Deployment

YP upgraded to Windows Exchange 2016 with the DataON deployment. Exchange servers were reduced from 32 to eight in a JBOD, saving on Windows and Exchange license fees. Mailbox sizes increased from 5Gb to 25Gb. "By working with Microsoft and DataON, we have created a more robust Exchange environment for YP. We have eliminated many of the complexities that come with scaling a large number of users while improving performance dramatically," Pritchett said. "Additionally, we have fewer servers supporting more users—all significantly cheaper than what we paid five years ago."

## Why DataON SoFS Platform?

As a pioneer of Microsoft clustered storage platforms, DataON has delivered resilient, high-performance and scalable Microsoft-certified solutions for hundreds of scale-out software-defined storage enterprise deployments. For companies like YP that have already made the "Microsoft choice" for its data centers, the DataON SoFS platform is a key component to automating and optimizing existing Microsoft applications.

Before its decision to move to DataON, YP also considered additional server hardware, in addition to SAN providers. Pritchett said YP chose DataON because cost savings were higher and service was a hot point. "We were invited to DataON so they could help us set up a POC to demonstrate their hardware capabilities. We ran our own code on a server they built for us and we performed our own tests. At that point, the data made sense and we were convinced. One thing that stood out for me was that they took their time with us and offered the kind of personal support and flexibility that we wanted."

The DataON POC showcased 1.3 million IOPS with performance that convinced the YP team it could support all YP corporate services, which include SharePoint, Exchange, SQL Server, file services and VMs.

The YP team found additional benefits to using DataON appliances that were not anticipated. "In addition to being less expensive, the DataON hardware has a longer shelf life than what we used in our previous SAN," said Pritchett. "We can reuse the DataON hardware, including the hard drives, in the future when we do another upgrade. They will still be useable because they aren't saddled with custom firmware as on some proprietary storage appliances."

## The Results

According to Pritchett, the transition to Storage Spaces was painless because the YP IT team is committed to the Microsoft environment. "We're already familiar with most Microsoft products, we know the Windows architecture, and Microsoft provides training as needed. The change to Storage Spaces was seamless."

YP is now delivering extremely high levels of storage performance and resiliency similar to a traditional SAN, but using a Microsoft Windows Server 2012 Storage Spaces solution with inexpensive Microsoft-certified storage appliances from DataON. "Best of all, we are buying commodity hardware, but outputting incredibly high performance," concluded Pritchett. "Why would we pay more for something that isn't meeting our needs?"

## About DataON™

DataON is the industry leading provider of hyper-converged cluster appliances (HCCA) and storage systems optimized for Microsoft® Windows Server environments. Our solutions are built with the single purpose of rapidly and seamlessly deploying Microsoft applications, virtualization, data protection, and hybrid cloud services. Our company is focused on customers who have made the "Microsoft choice" and we provide the ultimate platform for the Microsoft software-defined data center (SDDC). DataON is a division of Area Electronics Systems, Inc.

