Opus Interactive gives customers petabyte-scale storage

HPE Scalable Object Storage with Scality RING delivers a secure, durable data storage solution

Opus Interactive, a Portland, Oregon-based hybrid cloud computing and infrastructure provider, saw a growing customer need for affordable petabyte-scale storage that could securely store unstructured data such as photos and videos, as well as backups and archives. Challenged by the need to price themselves competitively against leading public cloud providers, Opus implemented a software-defined solution from Hewlett Packard Enterprise and Scality—HPE Scalable Object Storage with Scality RING deployed on HPE Apollo 4000 storage servers plus HPE Synergy composable infrastructure.

Founded in 1996, Opus Interactive offers its customers custom hybrid cloud and co-location solutions that fit unique requirements for security, scalability, cost, and future growth. As a trusted advisor specializing in high-performance, high-security industries, they do a significant amount of work in the healthcare, finance, and government sectors—arenas that often have particularly demanding needs when it comes to reliability and security.

The woman- and minority-owned enterprise operates from tier III+ data centers in Oregon, Texas, and Northern Virginia. With past performance that includes more than 20 years of proven results and current compliance with PCI DSS, HIPAA, and SSAE 18 SOC 2, Opus is well positioned to advise customers on how to reduce costs and optimize resources.

In 2005, Opus launched OpusCloud, a robust private cloud offering built on HPE’s award-winning server and storage hardware combined with VMware’s virtualization software. They offer OpusCloud as single virtual machines (VMs), multiple VMs, or entire virtual data centers, giving customers the flexibility to build and scale as needed.
HPE Apollo 4000 series storage systems gives Opus a competitive edge in high performance, high security industries with a way to provide cost-effective Big Data storage solutions to their customers.

### Massive scale-out capacity, serious security, and lower cost per TB

One of the main challenges customers face, including Opus customers, is how to keep up with explosive data growth. Organizations that try to keep up with data growth using traditional file and block storage solutions are finding that both the cost and complexity of managing and operating them has grown significantly. Meanwhile, many organizations that moved their object storage to a hosted cloud environment have encountered cost and data control issues.

“The data sphere is growing,” says Brady Wilson, Opus’ CTO. “Consider MRI technology: GE Tech offers 8 image contrasts from a single MRI. The number of MRI exams is expected to reach 45 million worldwide this year. Each is about 8 to 32 MB in size and will not only need to be processed but stored and accessed cost-effectively. Also, body cams usage is increasing—about half the nation’s law enforcement agencies are implementing body cams every day and storing the data for an average of 190 days.”

With cost as a priority when designing a petabyte-scale storage solution for customers, Wilson, initially looked at open source as an option. But when he learned that HPE was strengthening its partnership with Scality, a leading software-defined object storage company, Wilson felt that Opus’ long-standing relationship with HPE made it a natural to put at the top of the evaluation list.

Scality RING (RING) is a software-defined native file and object storage solution for large-scale on-premises storage of unstructured data. The software is designed to be straightforward and simple to deploy and manage, with a UI that provides an intuitive experience that helps users complete tasks in the most time-efficient manner.

With RING running on HPE Apollo 4000 servers, the system can seamlessly expand to thousands of nodes as the need for storage capacity or performance grows. In addition to virtually unlimited scaling, the software-defined architecture of RING is designed for the highest levels of data durability, and provides broad support for a large mixture of customer storage workloads.

According to Wilson, “With RING, we get all the benefits of a fully packaged solution with great support, and this platform is advanced enough that we don’t have staff sitting around just doing this one platform.” Shannon Hulbert, Opus’ CEO, adds, “Working heavily in fields like healthcare, finance, and government, we also have to consider security. Security, reliability, scalability, and affordability in one solution was really important.”

“Our goal is to provide a solution that can store a lot of data—petabyte-scale data such as video, images, enormous files—and do it affordably. We were looking for a solution that could directly compete with our largest competitors or public clouds, but at a lower price point than primary- or block-storage options.”

– Brady Wilson, CTO, Opus Interactive
The high efficiency of HPE Scalable Object Storage with Scality RING also helped Opus when it came time to price the product to customers. According to Eric Hulbert, President of Opus, “If you look at public cloud providers like Amazon with its S3 and Azure with its Blob storage offering, they charge for all the lists, gets, puts, and delete-type commands. They also charge ingress and egress fees. That’s where our value comes into play. We don’t charge those fees; we just charge a nominal rate for the storage, so it can be a more cost-effective long-term object storage platform.”

Egress fees are important to consider because if you’re transferring large amounts of data, even though transferring data to the cloud is free, many providers charge on a per-GB basis for outbound data transfers over the basic monthly allowance.

According to Hulbert, Opus used HPE Pointnext Services to help with the initial installation stage of the implementation before bringing the support in-house to maintain 24x7x365 with their customers. They also rely heavily on HPE OneView with HPE Synergy for management of the physical equipment across all of the platforms—including over 200 blade servers.

HPE OneView with HPE Synergy enables Opus to centrally manage all of their HPE server infrastructure and related networking across their facilities—from a single UI that is easy for all systems administrators and engineers to access and use. This provides programmatic access via API to infrastructure management not available via single, direct management utilities.

With its ability to create and control templates in server profiles, HPE OneView also provides uniformity in configurations across servers even when created by different engineers and avoids the need for manual configurations directly on the servers and network gear.

**Better price/performance for Opus and its customers**

Now that the solution has been implemented, Opus is very happy with the result, and so are Opus customers who are reaping both cost and performance benefits.

Third-party testing shows that Opus Interactive’s solution using HPE Scalable Object Storage with Scality RING, built from HPE Apollo 4000 servers, was dominant over Amazon AWS and Microsoft® Azure. This was particularly true in their multicore performance, with smaller machines occasionally outperforming rival VMs configured with double the available resources (for example, vCPU and RAM). Also, Opus’ customers experienced improved overall performance and ROI payback since implementing the HPE solution.
“With HPE Apollo (4000) and Scality (RING), we have a very tightly unified, engineered solution both on the hardware and software side. I know everything is going to work well together. We get both hardware and software support, and the tight integration between the two made it easy for us to choose this solution.”

– Brady Wilson, CTO, Opus Interactive

Customer at a glance

Solution
HPE Scalable Object Storage with Scality RING lets Opus lower the cost of petabyte-scale storage while maintaining the highest performance, security, reliability, and scalability.

Hardware
- HPE Scalable Object Storage with Scality RING, built on HPE Apollo 4200 and 4510 servers
- HPE Synergy composable infrastructure
- VMware vSphere® 6.7 clusters built on HPE blade servers
- HPE SAN clusters
- RAID 10 and Network RAID 10

Software
- HPE OneView
- VMware vSphere

Services
- HPE Pointnext Services

“That’s our strength: high performance, high security, and high compliance,” Hulbert concludes. “And when you layer on the overall reliability of the equipment, the backup capabilities support we receive, Scality on HPE Apollo provides a nice story for us to share with our customers.”

Learn more at hpe.com/storage/apollo