



Case Study

ACCELERATING ARRAY NETWORKS WITH REDUXIO STORAGE

Industry: Technology | Location: North America | Use Cases: Virtualization, Databases

KEY HIGHLIGHTS

Challenges

- Existing iSCSI storage array unable to handle the workload.
- Administrative overhead of data protection for VMs.

Solution

- Improved email and database performance with Reduxio HX550 enterprise flash storage.
- Accelerated engineering workflows for product development, test and build.
- Reduced data protection administration.

Benefits

50% Less Time Spent on Backup Administration

 Reduced frequency of traditional backups by half. Planning to replace traditional backup management completely with BackDating.

3X Faster DB Performance

 Improved Exchange and Oracle performance with Reduxio's flash-based architecture.

2.6X More Space for VMs

 Expanded capacity for VMs through NoDup™ in-line, in-memory dedupe and compression.



CUSTOMER PROFILE

-  Founded in 2000
-  Over 5,000 deployments worldwide
-  Over 250 employees
-  HQ in Milpitas, CA

The Array Networks Environment

Array Networks is a leader in the application delivery networking space. Array's 64-bit SpeedCore® architecture is a software-centric approach to application delivery, purpose-built to extract maximum performance from commercially available multi-processing technology and industry-standard cloud and virtual environments. Array's application delivery controllers - both virtual and physical, provide load balancing, acceleration and security, and help thousands of customers worldwide to efficiently and securely deliver end-user applications.

Array's corporate IT is predominantly based on VMware® vSphere virtualized infrastructure. The environment is used for core IT services, as well as services to their engineering team to support development and test activities.



No Space (or Performance) Left

As Array's business expanded into new countries, with a growing number of customers and products, their existing storage arrays could no longer meet their capacity and performance requirements. As the number of VMs increased, so did the load, increasing latency and impacting end users. Data protection was implemented using traditional backup and replication software, and as the size of the infrastructure increased, the overall administration time and complexity increased with additional backup jobs and monitoring requirements.

This is when Hao Sam, IT Manager at Array Networks, set out to look for alternatives. The main requirement was for a solution that could provide a significantly higher level of performance and capacity, and would reduce the administrative overhead for data protection, while improving his RPO (recovery point objective). After researching alternatives, Hao realized that a storage system with advanced data recovery capabilities built-in would be the optimal solution.

"I selected the Reduxio HX550 for its great data protection technology and its greatly simplified management."

Hao Sam, IT Manager at Array Networks

Hassle-free Performance and Data Protection

The Reduxio HX550 iSCSI flash storage solution was implemented in Array's main data center in Milpitas, CA. A cluster of ten VMware ESXi 6 hosts with over 150 VMs running a mix of Windows Server 2012 R2 and Red Hat Linux 7 operating systems was migrated to the Reduxio system. The cluster was connected to the Reduxio using a pair of 10GbE switches using ESXi native multipathing with minimal configuration.

The Reduxio system also provides storage for all the applications running on the VMware cluster. These include

various Oracle databases that host the company's CRM and ERP system, the Microsoft Exchange email server, the CVS and Subversion source code repositories used by the engineering team, the Bugzilla bug tracking database, and the build and test sandboxes.

BackDating now provides instant data recoverability with an RPO of one second for all tier-1 applications. For disaster recovery, VMs are backed up using traditional backup software with a daily incremental and weekly full backup schedule. For tier-2 application, the VMs were removed from the backup schedule, and only BackDating is used if a recovery is needed. This significantly reduced the operational overhead for data protection.

"After implementing the Reduxio system we observed significant performance improvement with our Microsoft Exchange and Oracle databases. In addition, I haven't had to log in to manage or reconfigure anything since initial setup - it just works."

Hao Sam, IT Manager at Array Networks

SOLUTION COMPONENTS

Reduxio Products

- Reduxio HX550 storage system

Environment

- 10 VMware vSphere 6.0 hosts
- Windows Server 2008 R2/2012 R2
- Red Hat Enterprise Linux v7, CentOS 6/7, FreeBSD 7/8/9/10
- Oracle® databases
- Microsoft® Exchange
- Development tools - SVN, CVS, Bugzilla