

Case Study

**JetServer** ACCELERATING WEB HOSTING WITH REDUXIO

Industry: Technology | Location: EMEA | Use Cases: Internet hosting

KEY HIGHLIGHTS

Challenges

- Inconsistent VM performance with existing legacy NAS systems.
- Constant need to monitor performance and migrate VMs between systems and RAID groups.
- Website backups that are long, infrequent, and require an operator.
- Ongoing costs of rack space due to space inefficient storage systems.

Solution

- Accelerated overall VM performance with Reduxio HX550 enterprise flash storage.
- Eliminated the need to manually migrate data between disk and flash using Reduxio Tier-X™ automated, active tiering.
- Reduxio BackDating™ for always-on to-the-second website recovery.

Benefits

10X Lower VM Latency



Reduced virtualized web servers latency with flash-first architecture.

3X Faster cPanel Backups

Faster sequential read and write with Tier-X™ active tiering.



20X Less Rack Space



Replaced existing systems filling up a full 42U rack with a single 2U system.



CUSTOMER PROFILE



Serving thousands of customers



Hosting tens of thousands of web sites



Operating since 2006

The JetServer Environment

Founded in the early 2000s, JetServer is a hosting and managed service provider. Using a team of dedicated engineers it offers a wide range of services - from shared IP hosted web servers, to virtual private servers (VPS). Thousands of customers trust JetServer with their hosted web sites and Internet services. JetServer is also a member of RIPE NCC, the Regional Internet Registry (RIR) for Europe, the Middle East and parts of Central Asia.

As part of its expansion into new markets, the company decided to innovate the web hosting market. A new software suite is marketed internationally under a new brand name called JetApps, which operates as a daughter company with the same name. JetApps is essentially a set of new hosting applications - JetBackup, JetMigrate and JetClone. JetBackup is a backup solution for cPanel, the leading panel for hosting providers, JetMigrate enables the migration of websites between cPanel accounts, and JetClone provides failover of cPanel-based websites from one server to another. All three are developed in-house by a team of JetServer engineers and web hosting experts.

The web services and development environments were implemented on vSphere ESXi hosts running hundreds of virtual web servers. The entire setup was consolidated on four legacy NAS systems.

## Growing Challenges

As JetServer faced dramatic growth in the number of customers and websites, problems started to arise. VM latency spiked at random times during the day. In some cases this caused unbearably high HTTP response time for end users, forcing the operations team at JetServer to constantly monitor performance and migrate noisy VMs between the NAS systems and RAID groups.

**“We found ourselves having to constantly monitor our storage systems and migrate VMs all day long. The automated migration mechanisms available in VMware did not really provide a relief, since the data migrations themselves created even more load, making the problem only worse.”**

*Eli Alum, CEO, JetServer*

In addition, customers started asking JetServer for improved data protection services. Recovering websites is as good as the frequency of cPanel backups and their backup windows. Typically, websites are backed up every night, and backup jobs run for hours. This provides the end customer only a single recovery point a day. This means that an entire day of website updates may be lost in case of a disaster, and the service will be down for hours during the recovery. Storage side snapshots, being limited in number and frequency, could not be practically implemented in a large-scale web hosting environment.

In addition, the storage infrastructure required a significant amount of rack space. Since JetServer uses external space providers, as business increased, the cost of space was becoming significant.

## Looking for Alternatives

Storage is a critical component of the services offered by the company, so a team led by JetServer's CEO started to review and evaluate alternatives. Although replacing the system with an all-flash model would address performance issues, JetServer found costs to be significant. In addition, this would still require the configuration of RAID groups, and would only offer partial reduction in rack space. In addition, other systems reviewed did not provide improvement to the data protection challenges. After testing a system in-house, the JetServer team selected the Reduxio HX550 as its new storage platform.

**“We looked at different options, but only Reduxio offered us a solution to all of our problems in one product - performance, reduction in data recovery times and reduction in rack space.”**

*Eli Alum, CEO, Jetserver*

## Next-Generation Hosting

The Reduxio HX550 was installed and configured as data storage for the large VMware ESXi cluster. All production VMs were migrated to the system.

In total, hundreds of VMs were migrated from the previous storage system in use. A full rack of the old NAS systems was consolidated to the Reduxio HX550 2U array. This enabled JetServer to reduce its monthly hosting expense.

VM performance improved immediately after the migration. In addition, websites backup was accelerated as well. However, not long after the system was in production, one of JetServer's customers formatted their web servers by mistake. Unfortunately, that customer was not using one of JetServer's standard website backup plans so there was no readily available current backup. Nevertheless, JetServer was willing to help. Using BackDating, they were able to recover the server back to an operation and up-to-date state within a few minutes.

**“The customer called us, expecting an immediate resolution. Obviously, when there's no backup, there is not much we can do. We turned to the Reduxio system for salvation, and surely enough, we recovered the web servers back to the last working state, just before the formatting occurred. The customer was amazed.”**

*Eli Alum, CEO, Jetserver*

### SOLUTION COMPONENTS

#### Reduxio Products

- Reduxio HX550 storage system
- Reduxio StorApp for VMware vSphere

#### Environment

- VMware® ESXi clusters
- CentOS, CloudLinux
- MySQL Server, MariaDB
- WordPress, Joomla, Drupal, Magento
- cPanel / WHM panel management
- Virtualization: KVM, OpenVZ, VMware
- WHMCS billing