

# EXCELLENCE IN EDUCATION USING REDUXIO STORAGE

Industry: Education | Location: North America | Use Cases: Databases, Dev/Test

## KEY HIGHLIGHTS

### Challenges

- Slow Database Recovery
- Scaling existing storage was complex and expensive

### Solution

- Instantaneous recovery from database failures using Reduxio BackDating™
- Expand capacity and accelerate application performance by deploying Reduxio HX550 enterprise flash storage

### Benefits

#### 60X Faster to Recover Developers Environments

- Shortened VMs and databases recovery to-the-second, replacing long snapshot-based recovery procedures

5 Hours



Past

5 Minutes



Today

#### 3X More Capacity

- Expanded disk space using in-line, in-memory dedupe and compression



#### 50% Lower \$ per GB



## CUSTOMER PROFILE



28,000 K-12 students



6,000 Staff



2 Community colleges



67 Schools



10 were honored as California Distinguished Schools



15 School districts

## EDCOE'S ENVIRONMENT

El Dorado's County Office Of Education (EDCOE) located in the heart of the historic Gold Country, is one of California's most innovative education offices. It operates like a service provider to its school districts and various agencies, providing a wide range of IT services – anywhere from Internet connectivity, IT outsourcing, disaster recovery solutions and web development for its network of schools.

To improve the overall utilization and simplify the administration, the environment has been fully virtualized using VMware vSphere running on tens of physical servers and blades, and centralized storage from traditional iSCSI and Fibre-Channel based storage systems.

## SCALING INTO THE 21ST CENTURY

At EDCOE, a major focus is being put on expanding the use of technology to provide an up-to-date collaborative and innovative education environment following its mission statement: Excellence in Education for the 21st Century.

The drive towards technology-aided education means more applications, databases, and websites. However, its legacy storage systems were designed to handle a relatively small number of applications and servers.

Looking for alternatives, the IT leadership at EDCOE found that upgrading the current storage systems would be too complex and very expensive to scale. In addition, such an upgrade would not provide the expected transformation either. VM and application recovery was performed using snapshots, with IT staff constantly busy with long recovery projects for developers since snapshots do not provide the required restore granularity.



## IT WAS ABOUT TIME FOR SOMETHING NEW

As innovation runs in its core, the EDCOE team thought out of the box, and searched for a solution that would transform the existing workflows and reduce the strain on the storage team. Logan Lemming, EDCOE's Senior Director of IT has found the answer in the form of a new storage architecture.

**"We do lots of in-house application development. When databases failed, it used to take hours to get them back to work. Now with Reduxio it's immediate. The fact that we don't need to use snapshots anymore sealed the deal for us"**

*Logan Lemming, EDCOE's Senior Director of IT*

## THE SOLUTION: Enterprise Flash from Reduxio

EDCOE has deployed a Reduxio HX550 system to replace the old storage infrastructure. The many workloads, virtual desktops and the private cloud hosting for school districts are all moving to Reduxio. The new environment serves more than 200 virtual machines primarily running a large Microsoft® based development environment consisting of Microsoft® SQL Server database clusters, web application development tools (both for Win32 and ASP.Net), WordPress sites and various Linux Red Hat VMs running the LAMP web development platform.

Using Reduxio NoDup™ in-line in-memory dedupe and compression, EDCOE is observing 66% savings in physical capacity consumption.

Combined with Reduxio BackDating™, Veeam® Backup & Replication™ running on physical servers with local storage are used to provide an overall cost-effective to-the-second data recovery and site-level replication.

**"I am amazed by the overall savings of the system, and the super low latency we're observing. This allowed us not only to expand capacity beyond what we could previously afford, but also to provide better service to our growing amount of users"**

*Logan Lemming, EDCOE's Senior Director of IT*

### SOLUTION COMPONENTS

#### Reduxio Products

Reduxio HX550 storage system  
Reduxio Storage Manager for vSphere

#### Environment

Windows, Linux  
Veeam® Backup & Replication™