

School District Deploys Datrium Automatrix – Gains Effortless Management, Boosts Oracle and Minecraft Performance, and Reduces Costs



SAN LUIS COASTAL UNIFIED SCHOOL DISTRICT CASE STUDY



SAN LUIS COASTAL
UNIFIED SCHOOL DISTRICT

Education
www.slcsud.org

Challenge

Loss of a major funding source resulted in a 10% budget cut, requiring innovative approaches to maintain performance and protect student data.

Results

- VM creation in 1/4 the time
- 10 hours/week reduction in management time
- 2-3x performance gain in Oracle and Minecraft performance
- Half the cost of Dell Compellent upfront and in the future

“When we saw a demo of Datrium Automatrix, we were blown away. Not only can we utilize existing hardware, but with compute and storage in the same platform, Datrium gives us a more sustainable economic model as we head into budget cuts. It’s not just half the cost now, but half the cost for anything we do in the future as well.”

Joe Miller
Network Specialist

Company Challenge

Facing a 10% Budget Cut

For three decades, the San Luis Coastal Unified School District (SLCUSD) has kept class sizes small, offered rich programs, and paid faculty and staff very competitively. That was thanks in part to property tax revenue from the local Diablo Canyon nuclear power plant – approximately 10% of the district’s budget came from the plant. So when SLCUSD learned that the plant would close by 2025, with revenue starting to decline in 2019, officials were understandably concerned.

“Losing that revenue will mean we have approximately \$2000 less for each student per year,” said Joe Miller, Network Specialist, SLCUSD. “To maintain the high level of services we currently deliver, we have to reach outside the box.”

Given the impending budget hit, the network team faced tough choices. When Oracle-based applications became sluggish, and Minecraft-based gaming for history and geography curriculum began to scale beyond the infrastructure capabilities, the team reluctantly anticipated a six-figure storage upgrade.

Results

New VMs in One-Quarter the Time

The move to Datrium Automatrix has allowed a resource-constrained network team to shift valuable time from managing storage to more innovative development activities. Instead of managing storage, VMs are created dynamically at the hypervisor level as needed for various school applications. “With Automatrix, it takes much less effort to manage our infrastructure. We create VMs in about a quarter of the time, and we spend 10 fewer hours a week managing our infrastructure,” Miller said.

By eliminating tedious storage-specific tasks from VM management and equipping the team with powerful VM analytics, Datrium has also eased planning for the district’s Network Specialists. The team now easily monitors performance and capacity utilization at the VM-level, allowing them to adjust as needed. “Why didn’t someone think of combining storage and the VM hypervisor a long time ago? There really is nothing like Automatrix,” Miller said.

“With Datrium Automatrix, we were able to reduce costs while getting amazing performance, easier management, and a way to protect our Oracle data going forward. Every dollar that we spend on Datrium products will save our district down the road as we get closer to that financial cliff.”

Joe Miller
Network Specialist

2-3x Faster Application Response

After deploying Automatrix, the network team noticed an immediate boost in performance, approximately 2-3x faster than the Dell solution. Instead of users experiencing thousands of milliseconds for applications to respond, they come up instantaneously. End users notice that speed on applications, including the student information system, learning programs, games, and online testing.

Administrators now access information on tablets anywhere within the school – which was not possible previously. If they encounter students in the halls, they immediately tap into the Oracle-based student information system to learn which classes they should be attending. “With a click on their tablet, district staff now has near-instantaneous access to PowerSchool and other applications,” Miller said. “That server-powered flash is far superior to anything we’ve experienced before.”

Increasingly Minecraft gaming is used by staff to teach students about history and geography. Computer labs at multiple schools compete against each other in a single, distributed Minecraft game. Previously, the District was able to host about 60 or 70 students at a time. With the game now hosted on Automatrix, more than double the students play simultaneously without any limitations.

The Network Specialists are accustomed to explaining technology benefits to the administration, but Datrium has made it easy. With faster response across all applications, the students, faculty, and staff have experienced the gains every day.

Automatrix Cut Costs in Half

SLCUSD found a way to ease management and increase performance and capacity for about half the cost of incumbent Dell Compellent. With Automatrix, the district has leveraged its existing servers and now adds capacity for new VMs using commodity SSDs (solid-state disks), rather than premium-priced array-based SSDs.

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Ready for the Future

The network team is relieved to have found a solution that achieves multiple goals at once: easing management, increasing application responsiveness, and reducing cost. Also, with Automatrix, the district is planning to replicate Oracle-based student data between its San Luis Obispo and Morro Bay sites.

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About San Luis Coastal Unified School District

San Luis Coastal Unified School District schools are dynamic, student-centered learning communities where all children are expected to take risks, explore new opportunities, and discover their unique potential. Maintaining small schools reflects the district’s educational philosophy of knowing students on a very personal level. The district includes 10 elementary, 2 middle, 2 comprehensive high schools, and 1 continuation high school. SLCUSD success as a district is reflected by numerous California Distinguished School Awards, National Blue Ribbon Awards, and many other honors.

Learn more about Datrium at www.datrium.com.

