PURESTORAGE®

Chapman University ensures end-users across campus improved data-access performance since installing an all-flash array from Pure Storage, while its IT department enjoys dramatically simplified storage management.

CHAPMAN UNIVERSITY

BUSINESS TRANSFORMATION

Students, faculty and staff have faster access to the data and applications they use regularly; software development teams complete their work more quickly; and database administrators spend far less time on time-consuming storage management.

GEO

North America

INDUSTRY

Higher Education

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>
> James Kelly,
> *Oracle DBA and Storage Administrator*

CHAPMAN UNIVERSITY GIVES LEGACY STORAGE A PERMANENT SABBATICAL IN FAVOR OF PURE STORAGE

Chapman University is a private university serving more than 8,300 students with over 900 faculty in a variety of fields, most notably film and television, fine arts, business, and health sciences. Located in Orange, California, its roots can be traced back to 1861.

The school operates two data centers on campus, with a disaster-recovery site at a co-location facility in Nevada. Virtually all university activities, with the exception of research, are supported by PeopleSoft® CRM for Higher Education, backed by Oracle® databases. A data warehouse runs on Microsoft® SQL Server.

The PeopleSoft applications and Oracle databases are hosted on a FlashStack™ configuration consisting of Cisco UCS blade servers, a Pure Storage FlashArray//M20, and VMware vSphere software.

PURE STORAGE SELECTED FOR NEW STORAGE PLATFORM

When a new director of infrastructure arrived at Chapman in 2015, one of his early priorities was to introduce solid-state storage technology. "We were glad to hear that, as we knew the performance benefits that solid state provides, so we were eager to participate in the search for a provider," recalled John Carver, a database and storage administrator at Chapman. After extensive research, the choice came down to the university's incumbent storage vendor and Pure Storage.

"Pure Storage was the better choice across the board," Carver noted. "Its business model is unique, it's simple to manage and easy to expand, and the performance is unmatched."

During the decision-making process, "the Pure Storage team really stood out," said James Kelly, the other database and storage administrator at Chapman. "It was clear whom we wanted to work with."

PERFORMANCE IMPROVEMENTS SEEN IMMEDIATELY

"I can't imagine storage faster than the Pure Storage array," Kelly said. "As an Oracle DBA, I am totally focused on getting the lowest latencies possible. Pure Storage makes our databases run faster than they even need to. And the availability and reliability are a '10 out of 10'."

COMPANY:

Chapman University
www.chapman.edu

USE CASE:

- Database – Oracle®, Microsoft® SQL Server

- Virtual Server Infrastructure – VMware® vSphere®

CHALLENGES:

- Routine management of legacy storage system consumed dozens of hours a week.

- Extensive time and effort were required to deliver cloned databases needed by development teams.

IT TRANSFORMATION:

- All-flash storage delivers sub-millisecond latencies for core applications and accelerates server virtualization.

- Automation slashes time allocated to routine storage functions.

- High data-reduction rates allow unlimited cloning of databases with virtually no impact on storage capacity.

"The shift to working with Pure Storage is just night and day."

James Kelly,
Oracle DBA and Storage Administrator

An early example of the impact from installing Pure Storage came when Chapman's data warehouse was moved onto the new storage platform. Every night, data from the production Oracle databases is moved into the data warehouse for processing. Consultants from the educational software provider Blackboard "said they had never seen nightly pulls run at the speed they were seeing with Pure," Kelly said. "And that is with both the Oracle and SQL Server databases running simultaneously on the all-flash array."

A side benefit of installing the Pure Storage array was that the superior performance allowed Chapman to accelerate its plans to virtualize its production database servers, which is now underway. "I don't know if I would have felt as confident with virtualizing our production servers if we were still on the legacy storage," Kelly said.

In turn, the virtualization is moving Chapman toward another important goal — automation. "We spend all day every day making copies of our Oracle databases for development and test operations," Kelly noted, "and that process is far too manual. Pure Storage is helping us move toward greater automation by providing tools such as snapshot replication and active clustering. What's more, the expertise they bring, both in technical support and on their blogs, is a huge help. The resources Pure provides are just unmatched in terms of helping us build out new environments."

Automation is making an impact with the cloning of databases Kelly said. Previously, this process took as long as eight to 12 hours to complete. With automation tools in place, that time has been cut by at least half.

Kelly noted that the APIs between Pure Storage and other environments — such as VMware and Cisco UCS servers — simplify system management and further advance the automation process.

EFFORTLESS MANAGEMENT EASES IT STAFF'S WORKLOAD

Kelly said the experience of managing the Pure Storage array is "a totally different animal" than that of legacy storage systems. "We have gone through three generations of traditional arrays, and while they have gotten easier to manage over time, the shift to working with Pure is just night and day."

He said that his colleague, Carver, has "an alarmingly large spreadsheet" that tracks the complex configurations and settings of its legacy storage arrays. "Now, with the Pure Storage environment, I just provision a large number of volumes and can forget about it for another five years."

With legacy storage systems, Kelly noted, "you have to pay attention all the time. With Pure Storage, it just sits there and provides amazing high-speed storage whenever you want it. And you just forget that it's there."

The de-duplication and compression features of the Pure Storage array also have impressed the IT team at Chapman. "At the beginning, we didn't know what to expect for de-duplication, and we weren't certain we could put our entire production databases on the Pure array," Kelly recalled. "But we just kept adding more and more data until we reached the point that everything we had was on the Pure array — and it was still only at one-third of capacity."

Two years later, the array is at 62% of capacity, with an overall data-reduction ratio of 5.2:1, which was even better than promised. "We didn't know you could believe what a storage vendor told you, until we met Pure Storage."

Carver recalled another promise from Pure Storage that sounded too good to believe. "They said installation and setup would take only about an hour. But it took even less than that. This is in sharp contrast to the 1½ months it took to get our legacy system working."

WORKING WITH PURE STORAGE A UNIQUE EXPERIENCE

Kelly said the best aspect of the Pure Storage experience is working with the company itself. "I have never dealt with a support organization that is as seamless and effective as the people at Pure. I have been incredibly happy with everyone," he said. "We had an incident where a defective SFP fiber interface was causing some databases to reboot at random. The Pure support team — using the phone-home data and analytic capabilities of the Pure1™ tool — recognized the root cause before we even saw the problem, and they were in our hallway in 15 minutes, letting us know that the part would be there as soon as possible."

Another highlight of the Pure Storage experience for Chapman is the Pure Evergreen™ Storage program, which guarantees customers upgrades to the latest technology with no disruption to operations and complete protection of past investment. "I have gone through many forklift upgrades in my career, and it is always a painful experience," Carver noted. "The promise of the Evergreen program is that there will be no disruption and zero dollars wasted."

Added Kelly, "As a mid-size university, budget is always a huge issue, so the fact that upgrades are built in as part of Evergreen is a big benefit."

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