

UNIVERSITY OF ARIZONA

EMC information infrastructure helps university deploy its largest IT initiative while reducing the IT management burden



ESSENTIALS

Challenges

- Rollout of major Oracle PeopleSoft infrastructure
- Reduced budget, limited staffing

Solutions

- EMC CLARiiON CX4 networked storage
- EMC Avamar backup and recovery with source data deduplication
- EMC Data Protection Advisor software
- EMC NetWorker software
- VMware ESX virtualization solution

Key benefits

- Super-fast data access for 58,000 Oracle PeopleSoft users
- Improved utilization of university resources
- 99-percent-plus data deduplication
- Daily backup windows cut from 24 to 10 hours
- 21:1 server consolidation ratio in overall VMware environment

The University of Arizona (UA) is a public research university serving 38,000 undergraduate, graduate, and professional students at its 388-acre campus in Tucson. According to the National Science Foundation, UA is the top-ranked institution in its region for overall research funding and leads the nation in attracting funds for physical sciences research.

This cutting-edge institution decided to take on the single largest IT project in its history: replacing all its enterprise resource planning (ERP) applications. UA required better enterprise planning and new business intelligence (BI) tools to make better information available to the administration for data-driven decisions and offer new agility in meeting student needs.

In addition, a tough economy led to lower budget allocations from the state. The cutbacks brought 10-15 percent annual reductions in UA's departmental budgets. That increased the urgency to apply all of UA's resources, including instructors and classrooms, to the best use possible. The pressure was on to implement ERP and BI in the most efficient way possible.

Derek Masseth, UA's senior director for Infrastructure Services, says, "This initiative is a strategic investment in our future and in the responsiveness and decision-making ability of the university. We needed a high-performance, scalable infrastructure that would meet the demands of our new ERP and BI applications while reducing the time we spent on IT administration."

UNIVERSITY GRADUATES TO ORACLE PEOPLESOFT ERP

UA selected EMC® CLARiiON® CX4™ storage to support the Oracle PeopleSoft suite, which includes human capital management and student information, and the Kuali suite, which includes financial systems and research administration, as well as the Oracle BI suite. This 40-terabyte environment requires high throughput, especially when handling peak workloads such as online class registrations. To maximize performance and availability, the EMC CLARiiON CX4 connects to 4-gigabit Cisco MDS fibre switching and takes advantage of Oracle's Real Application Clusters.

UA relies on EMC Avamar® backup and recovery with source data deduplication to further protect Oracle PeopleSoft. Avamar provides data deduplication that reduces the size of backup data at the source, or client, and enables fast daily full backups of UA's Oracle PeopleSoft physical and virtual servers to Avamar Data Stores, which are replicated to the remote site.

EMC Data Protection Advisor software is used to manage and report on status of Avamar backups. EMC NetWorker® software automates the export of Avamar deduplicated data to tape for long-term storage.

“The scalability, agility, and efficiency we’ve gotten from EMC have allowed us to roll out an initiative of this magnitude while staying within our tight budgets. With more management simplicity and automation, we’re able to support this infrastructure with minimal staffing resources on the ground. EMC is helping meet our needs in so many ways that other solutions simply couldn’t.”

DEREK MASSETH
SENIOR DIRECTOR FOR INFRASTRUCTURE
SERVICES

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To learn more about how EMC products, services, and solutions help solve your business and IT challenges, contact your local representative or authorized reseller—or visit us at www.EMC.com.

UA also has virtualized its Oracle PeopleSoft development and test environment with VMware® ESX® Server. Four VMware ESX Servers run 170 virtual machines, which are stored on EMC CLARiiON.

RAPID DATA ACCESS DELIVERS COMPETITIVE ADVANTAGE

Top system performance is paramount to UA’s PeopleSoft Oracle environment, which supports 58,000 staff, faculty, and students.

Masseth explains, “Our new ERP and BI infrastructure is empowering our staff with super-fast access to realtime data so they make better, more informed decisions. As student course registrations flow in before each semester, we link this data with instructor and classroom availability. Now we have quicker access to data related to student registration, course availability, and number of seats. With this data, the institution can then make decisions ‘on-the-fly’ to minimize bottlenecks.

“Because the CLARiiON system’s speed helps our users get their data very quickly, we’re much more responsive and agile. This is a critical advantage in today’s competitive university world.”

BETTER DATA PROTECTION, DRAMATIC SAVINGS

With EMC, UA is efficiently managing significant data growth resulting from the Oracle PeopleSoft rollout. Data volume is expected to grow by six to seven terabytes annually as the IT team brings application modules and functionality online.

With Avamar data deduplication, UA has achieved a 99 percent reduction of daily full backup data, so full data protection is possible using less backup storage. Compared with UA’s prior tape backup system, Avamar compressed the backup window from over 24 hours to less than 10 hours.

“One of our favorite things about Avamar is that our backup windows have been phenomenally reduced,” Masseth says. “We also reclaimed the efforts of two full-time employees because we no longer have to monitor backup administration with kid gloves.”

“EMC is addressing our full range of data protection needs for Oracle PeopleSoft with data dedupe, backup, and remote replication,” Masseth adds. “And we’re able to centrally and efficiently manage it all with EMC’s Data Protection Advisor and NetWorker.”

In addition, UA is achieving savings through virtualization of its Oracle PeopleSoft development and testing servers. The Oracle PeopleSoft test environment is part of a larger VMware deployment at UA that has achieved a 21:1 server consolidation ratio. Over three years, the overall VMware environment has enabled UA to reclaim data center space, reallocate five full-time equivalents (FTEs), and reduce carbon emissions equivalent to taking 122 cars off the road.

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