Delivering a Digital Campus Experience

Improving Graduation Rates—While Saving Millions of Dollars—at the Nation’s Largest 4-Year Public University

CSU The California State University
California State University looks to Delphix to drive data transformation that accelerates their move to AWS and streamlines app development to serve more than 500,000 students across 23 campuses.

Traditional academic institutions are globally competing against for-profit schools, online universities, and specialized programs, while new learning platforms, such as Udemy and Smartly, are offering faster and cheaper alternatives to college; not to mention, digitally sophisticated students want the best return on their investment—all disrupting and reshaping higher education.

But California State University (CSU) is using software to deliver quality experiences to students and lead as a digital university of tomorrow. The California State University system is made up of 23 campuses across the state of California, serving nearly half a million students and employing over 50,000 faculty and staff.

For the past several years, CSU has made a massive shift towards digital by investing heavily in its IT systems and activating programs to provide better student experiences and support initiatives, such as Graduation Initiative 2025.

CSU embarked on digital transformation with its Common Management System (CMS)—an Oracle/PeopleSoft software application environment critical to delivering everything from student enrollment, management, scheduling and registration to human resources, financials, and employee compensation—for all of its campuses geographically spread out in one of the largest states in the U.S. Simply put, the CMS is the heart of the entire university system infrastructure.
There were three major challenges when it came to migrating CMS to the hybrid cloud to power digital transformation:

1. Pressure to reduce costs
2. Demand from campuses for greater and faster access to data
3. Rigorous security requirements

To make this massive IT system accessible and actionable across its highly distributed campus system, CSU embraced a hybrid cloud strategy to extend its existing infrastructure using AWS all while safeguarding its mission-critical information that exists both on-premises and in the cloud.

The university’s technology leaders understood that the cloud would help them achieve greater agility to support the campuses and faster delivery times for application development, and that new opportunities would emerge if they had better and faster access to information. CSU wanted to leverage access to CMS data and maximize delivery of that data to better serve the campuses and support campus programs that would ultimately drive better graduation rates, all while saving the university time and money along the way.
Changing the Economics of Data in Higher Education

Delphix was brought in as the driving force behind the hybrid cloud migration coupled with the necessary data masking technology to safeguard critical data. Working together with leading IT company Unisys to implement a DevOps strategy, CSU leveraged Delphix’s DataOps platform with integrated data virtualization and masking technologies as well as self-service tools.

This allowed CSU to achieve the following:

1. **Game-changing operational outcomes**

   Delphix provides virtual copies of masked CMS production data on-demand, in minutes using just a fraction of the resources that the university was using before. This gets the necessary data to developers in order to deliver their applications quickly while protecting sensitive data. As a result, the university automates data delivery more quickly and frequently to application teams across campuses.

   Prior to Delphix, the CMS IT teams handled around 200 data cloning requests per month over a number of days to service individual campuses. Today, a smaller team executes more than 2,000 requests per month in minutes—all in an automated fashion.

   **With self-service access to data, CSU has the ability to move almost 15TB of data on a daily basis to serve all 23 campuses, dramatically improving campus productivity.**

   “In a virtualized world, data is much more portable, so CSU was able to deliver data from our private cloud to AWS for various purposes, including data cloning and data masking as well as using AI to identify students who are at risk of dropping out. Every campus now has data on-demand for their own needs with self-service capabilities.”

   **Rudy Gonzalez**
   Managing Director, Unisys
The university system significantly reduced physical storage consumption while still allowing the campuses to clone data faster and having self-service capabilities along the way.

$7.5M per year in savings

Pursuing a hybrid cloud approach typically involves slow, complex, and repeated transfer of data from on-prem to the cloud as well as concerns about the environments in both the private and in the public cloud for development and testing.

Data masking helped increase the security posture of the university by replacing sensitive fields (social security numbers, emails, credit card information, etc.) with fictitious yet realistic data in the virtual data copies, without affecting the usefulness for application development and testing in the cloud while staying compliant with mandates, such as HIPAA, PCI, GDPR, and CCPA. CSU no longer has to rely on the individual campus’ custom scripting, security policies, and practices for data masking.

“Delphix’s DataOps is truly changing the economics of data. CSU was able to avoid almost $7.5 million per year on major application projects and growth because we no longer had to invest in storage infrastructure—we’re working in a virtual landscape instead.”

Rudy Gonzalez
Managing Director, Unisys
In partnership with Delphix and Unisys, this journey took CSU nearly 24 months from inception to completion. As a result, the university has achieved a more financially sustainable infrastructure while realizing significant cost savings, so it can create efficient and high-quality services that accelerate students’ success beyond their academic experience.

CSU has positioned itself at the tip of the digital spear with its overhaul of the student experience. This massive undertaking was only made possible through harnessing the underlying data encompassing all of their universities. Delphix played a critical part in enabling the necessary speed and security to make this transformation successful, and ultimately, spur positive outcomes that lead to higher graduation rates and an innovative campus experience to faculty and staff across the 23-campus system.