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CUSTOMER TESTIMONIAL

Penn State Supports Critical Course Platform with JetStor[®] RAID Arrays



Fast Storage for Testing Penn State's Academic Platform

Penn State's Load Test Environment



THE ORGANIZATION

The Pennsylvania State University (Penn State) has exemplified academic excellence since its founding in 1855. Today, it is one of the nation's very finest public universities and a leading research institution. Remarkably, Penn State maintains its educational standards despite also being one of the country's largest universities with some 94,000 students and 24 campuses across Pennsylvania.

THE CHALLENGE

Penn State deployed the ANGEL Learning Management Suite from Blackboard, Inc. several years ago, which enabled University courses to be made available to students online. The comprehensive ANGEL platform continues to allow University faculty to develop, manage, and deliver curricula, and supports tools like wikis, blogs, podcasts, whiteboards, and instant messaging for students.

"ANGEL is an essential part of learning at Penn State," said Lowell Smith, systems administrator at the University. "As the infrastructure for delivering instruction, it is critical in supporting our faculty in providing Penn State students with a quality education."

However, although ANGEL's functionality can be customized (enabling it to support evolving curricula and social networking tools), between routine upgrades and deployments of new features, the system is continually changing. "ANGEL is too vital to release new functionality without first validating the changes in a test environment," explained Smith. "We can't permit any changes that might disrupt the application and, as a result, course work."

To ensure ANGEL's functionality after modifications are made, IT staff subject any proposed new features to a battery of tests that simulate usage equal to thousands of users—using a system automated by SQL Server Workflow. Only when the new functionality passes these tests are they placed into the live campus environment. Yet every load test requires substantial bandwidth and generates up to 50 large reports and logs for analysis. Moreover, the databases, which total over half a terabyte, must be reset to pre-test states before another test is run.

"We conduct one test after another, which puts tremendous pressure on storage due to the data produced and the need to reset the databases quickly," said Smith. "We required solutions that economically ingest and stream data very rapidly."

THE SOLUTION

JetStor[®] SAS 516F 16-bay RAID Array & JetStor SATA 516F 16-bay RAID Arrays from Advanced Computer & Network Corporation (AC&NC)

