

University of Colorado

Micro Focus® Silk Performer ensures a smooth start to university for 60,000 new and continuing students each year.



Overview

Founded in 1876, the University of Colorado prepares nearly 15,000 new graduates each year and offers over 300 degree programs. Life-changing research and technology originating at the University of Colorado's four campuses have landed the university system a high ranking—No. 29 in the world—on the Reuters annual list of the World's Most Innovative Universities.

Challenge

Each fall, 60,000 new and continuing students start the new university year. All of them need system access immediately to select and register for classes, seek financial assistance, and

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LU SILLAS

IT Assistant Director
University of Colorado

interact with faculty staff and fellow students through a sophisticated student portal. Faculty staff needs access to applications managing HR, finance, grant applications, and student registration. The Quality Assurance (QA) team is responsible for ensuring that these supporting applications are ready for the influx of new users at the semester start.

Lu Sillas, IT Assistant Director for University of Colorado System, recalls how one year it didn't all go to plan: "In preparation for the Spring semester start, we'd performed functional testing that showed all was well, but when the volume of new students logged onto the system, we experienced a major outage, due to overloading our Storage Area Network (SAN). It was all hands-on deck and eventually the issue was resolved, but it was clear to our management team that more robust testing was needed to ensure the system can perform at peak load."

Solution

Silk Performer was introduced to help test the business-critical services provided from the System office. Sasi Sunkari, Senior QA Engineer, produced Silk Performer test scripts to simulate load tests of up to 60,000 users: "We analyse the test results on the server and client side and share these with the application owners and the infrastructure team. This way



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UNIVERSITY INFORMATION SYSTEMS

At a Glance

- **Industry**
Higher Education
- **Location**
Colorado, USA
- **Challenge**
Provide smooth access to 60,000 new and continuing students at the start of each semester.
- **Products and Services**
Micro Focus Silk Performer
- **Results**
 - + Increased application availability through load test simulations of up to 60,000 users
 - + Early detection of performance issues
 - + Comprehensive performance reporting for management and service owners
 - + Streamlined testing processes and test script maintenance

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SASI SUNKARI

Senior QA Engineer
University of Colorado

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we are able to identify potential performance issues, as well as some functional issues, before they can affect our users.”

The QA team engaged Micro Focus in a week-long training session to gain maximum benefit from Silk Performer. An existing test script was used as a training baseline and updated and enhanced throughout the training, resulting in a much more efficient final script. The QA team also learnt how to reduce test script maintenance and make the test scripts easy to understand and efficient to deploy.

Silk Performer’s main role is to ensure that the university’s key applications are ready for the arrival of new students, at the start of the spring and fall semesters. Silk Performer also contributes in other ways, as Sunkari explains: “We use Silk Performer for select regression testing after upgrades; to ensure the application has not been negatively affected at all. We have scheduled a weekly automated load test, which includes the testing of batch bundles and small upgrades before they are deployed in main production. The test runs early morning and by the time I get into the office I have a full status report which I share with the application owners and the leadership team. The Silk Performer reports are easy to understand for our senior managers and they detail average page load times, number of transactions processed, click rates, and other performance

indicators. This regular proactive testing ensures issues are identified as early as possible and we deliver the highest quality service to our audiences.”

Silk Performer is also used for network simulation to ensure applications will run as expected in different mobile environments, such as Edge, LTE, and HSDPA. With a large user population, this load testing capability is invaluable when introducing new platforms for applications access.

Results

Testing efforts now simulate load from users on all four campuses to ensure applications are ready for semester start-up activities. Since the implementation of Silk Performer, no major load-related system outages have been experienced and the feedback from the user community is very positive.

Sillas concludes: “We receive excellent support from Micro Focus. Whenever we encounter an issue we get an immediate response and the team will not rest until our problem is resolved. We have increased visibility into how our systems perform at peak load and can deal with issues before they negatively affect our user community. We are very pleased with Silk Performer and can see much more potential for it going forward.”