

Case Study

Application Delivery Management

The Student Loans Company

Using Micro Focus LoadRunner Enterprise and LoadRunner Cloud helps the Student Loans Company deliver responsive online services to learners throughout the UK.



Who Is the Student Loans Company?

The Student Loans Company (SLC) is a non-profit making Government-owned organization set up in 1989 to provide financial loans and grants to students in universities and colleges in the UK. SLC employs more than 3,300 people and offers more than 50 products, including tuition fee loans, maintenance loans, allowances for students with disabilities, and grants for help with children and dependents. The organization has 8.5 million customers in total, with one million new and returning students annually in colleges and universities across England, Northern Ireland, Scotland and Wales.

Supporting the Digital Customer Journey

SLC's stated mission is to enable people to invest in their futures through further and higher

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CLARE BARBER

Head of Test Centre of Excellence The Student Loans Company education by providing trusted, transparent, flexible, and accessible student finance services. With the aim of delivering an outstanding customer experience, SLC is committed to modernizing and simplifying its key technology platforms. As these platforms manage the end-to-end customer journey through the application, assessment, payment and repayment stages, it is vital that they work efficiently and reliably while delivering exceptional performance to thousands of internal users and millions of external customers.

Clare Barber, Head of Test Centre of Excellence at SLC, says: "Our customer journey runs in an annual cycle that starts in November and includes several peak processing periods in each of our four core areas: Apply, Assess, Pay, and Repay. Performance testing for our applications is critically important, both to ensure responsiveness to customers and to support our employees in keeping business processes in line with SLAs."

Around 90% of the customer journey at SLC is automated, and 98% of all applications are online, with 70% of customers using mobile devices to interact with the company. SLC uses a combination of custom-built on-premises Java applications and third-party SaaS products such as Salesforce and MuleSoft. The organization also uses OpenText Documentum



At a Glance

Industry

Financial Services

Location

United Kingdom

Challenge

Maintain rigorous and accurate performance testing across a constantly changing and evolving landscape of on-premises and cloud applications

Products and Services

Micro Focus LoadRunner Cloud Micro Focus LoadRunner Enterprise

Success Highlights

- Supports journey to cloud-first operations
- + Gives confidence that critical systems will perform under extreme loads
- + Ensures reliable access to funding for millions of UK students

for document management and Alfresco for content and workflow management. Testing this large, diverse, and continually changing software landscape to avoid performance degradation under load is a vital element in ensuring that SLC can execute its core mission.

Optimizing Performance for Peaks in Demand

To keep its mission-critical applications in peak condition, SLC relies on Micro Focus solutions to manage robust performance testing programs. For a number of years, the organization has used an on-premises deployment of Micro Focus LoadRunner Enterprise to test applications using the HTTP web 1.0 protocol. More recently, SLC introduced Micro Focus LoadRunner Cloud to test two new web-native applications: Salesforce (for customer relationship management) and Alfresco (for content management).

"Our adoption of LoadRunner Cloud and the TruClient interface was driven by our introduction of Salesforce and Alfresco, both of which are hosted in our AWS environment and use the Angular stack," says Clare Barber. "TruClient gives us the ability to simulate the asynchronous requests made by Angular, but it's also a step in our general cloud-first strategy."

Currently, SLC utilizes LoadRunner Enterprise for 70% of its performance testing, with the remaining 30% on LoadRunner Cloud. SLC expects these proportions to change as it digs into the complexities of managing performance across its hybrid cloud/on-premises landscape for Salesforce.

The largest processing peaks at SLC are for its Full-Time Undergraduate product, and these occur in April (for the Apply element), in June (for the Assess element) and in August/September (for the Pay element). For Alfresco performance testing, SLC simulates a peak of 1,400 concurrent users. For Salesforce Community Cloud,

the peak is 800 internal customers, while for Salesforce Services Cloud the peak is 1,200 external customers.

Evolving to Meet New Challenges with Micro Focus

The technology landscape at SLC is by no means static. The organization receives standard policy changes every academic year from the UK Government, which can be small or large changes to current student finance rules. SLC also drives significant and ongoing technology transformation both across platforms and business processes.

"Our biggest challenge currently is supporting a shift-left approach, which will integrate performance testing into our Agile methodology and CI/CD processes," says Clare Barber. "We need to maintain the pace of our change programs while not compromising test quality, and we value the support from Micro Focus as we adapt to the challenges of a hybrid landscape."

SLC is working to adopt a similar approach to performance testing as it has for other types of test automation: considering performance at the unit level, service level, and



UI level. This is driving a reexamination of the approach and processes, but also of the performance test toolset and the configuration of the performance testing environment. In addition to strengthening the technical capabilities and skills within its Test Centre of Excellence, SLC is assessing the feasibility of migrating its LoadRunner Enterprise environment to the cloud.

"Our technology strategy aims to replace monolithic on-premises systems with future-ready cloud platforms," says Clare Barber. "A cloud-first strategy will create an opportunity to drive improvements and enhancements in our existing processes and to set up tooling that will suit this hybrid cloud/on-premises configuration."

Creating Tomorrow's Productive Workforce

With millions of students dependent on the financial loans and grants that SLC provides, keeping core processes running smoothly is a vital element in the UK's higher and further education system. Ultimately, the UK economy depends on the continuous entry into the workforce of skilled and knowledgeable graduates—so it's no exaggeration to say that SLC represents a critical service for the country as a whole.

Using its Micro Focus LoadRunner solutions, SLC can comprehensively test the performance of its portfolio of on-premises and cloud applications, giving the organization confidence that its mission-critical systems will work as expected throughout the academic year.

"Our core mission is to enable people in the UK to achieve their educational goals and thereby boost the economy for the good of all," says Clare Barber. "Our Micro Focus LoadRunner solutions help us ensure that our systems can cope with the extreme peaks at critical points

"Our Micro Focus LoadRunner solutions help us ensure that our systems can cope with the extreme peaks at critical points during the annual cycle, so that students have reliable access to the financing they need."

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during the annual cycle, so that students have reliable access to the financing they need. And as we move towards a cloud-first strategy, the LoadRunner portfolio is supporting us in our transformation, providing the tools we need to test performance across our hybrid applications."

Integrated third-party solutions

- Alfresco
- MuleSoft
- OpenText Documentum
- Salesforce

Cloud environment

- Amazon Web Services
- Micro Focus Cloud

Development methodology

 Continuous Integration/ Continuous Deployment

