



The Background:

Anglia Ruskin University (ARU) has over 40,000 students and offers a wide range of flexible courses from undergraduate and postgraduate, to distance learning and degree apprenticeships courses.

ARU has campuses in Cambridge, Chelmsford and Peterborough that have benefitted from £115m of investment over the past six years.

In 2023, Anglia Ruskin University was awarded the Times Higher Education University of the Year and in 2024, they were awarded the UCISA Transformation Award for their End-to-End Assessment Programme.

The Situation:

In 2022, ARU implemented a new soft telephony system for their call centres, as well as for their clearing period, when they fill any available places they still have on their courses.

In August 2022 during their clearing period, they had a failure, which meant that they had to revert to the disaster recovery system. They also had a similar failure in 2020.

Because of the failures in both 2020 and 2022, the confidence from their key business stakeholders was diminished, as they were unable to have any confidence in their telephony system to deliver for clearing for 2023.

This led ARU to engage with Infuse who are experts in the testing of clearing systems for higher education institutions.

The Solution:

The solution provided by Infuse was based on their unique approach to testing clearing systems which thoroughly tests the system from end to end, using a combination of load, telephony, and automation testing.

The project was estimated to run for 4 to 6 weeks and included:

- Using telephony load testing tools to generate bulk calls for multiple IVR combinations.
- Generating bulk calls from a load testing system from multiple IVR combinations.
- 120 virtual machines installed with Team instances, with the exact setup of multiple queues directed by the ARU team.
- Developing over 120 testing scripts with different combinations for those virtual machines to simulate human intervention.
- Sharing the outputs of those scripts with third parties to ensure that the system was working as intended.

- Performing user acceptance testing, running both automated scripts, as well hybrid scripts, using a combination of automated and human testing.

- A final test, running human-only telephony testing.

The Results & Benefits:

The testing project was delivered on time and on budget, and the results from the testing were as follows:

- The testing identified a "limited SIP Trunk Capacity 503 Service Unavailable" error (caused by a third party), which would have led up to 20% call failure during clearing if not resolved.
- 4 successful cycles of user acceptance testing (UAT) were performed with live and automated agents to replicate the closest real-life business environment for testing. After the 4th round of UAT, the system was able to handle the load without any call drops whatsoever.
- By the end of the UAT testing cycle, the three objectives had been fulfilled, demonstrating the performance of the ARU network and infrastructure under a full load of 300 concurrent calls at a pace of 5 calls per second with 120 active agents and a passing rate of more than 96%.

Because of the testing, there were no failures during the clearing period, which meant that the university was able to meet all of its targets for handling all calls coming through their system during that period.

This meant that were able to have a successful clearing period, hitting all targets for student recruitment during clearing.

Client Feedback:

Paul Gallagher Assistant Director of Applications, Digital Development at Anglia Ruskin University said of the project:

"It was the Infuse expertise within higher education, but also the technical expertise in these areas that we were exploring. Infuse spent many hours with our different technical experts within the organisation to understand our integration service as it currently stands. So that they could do the full assessment, they used leading technical experts to actually look at the products that were available in the marketplace that suited our needs.

Working with Infuse, they have great communication channels, whether that's over through email or teams, and they're able to steer us in the right direction when things are going astray. They do not wait for the failure to happen. They actually redirected at the point so that we can actually address the issues as quickly, and as efficiently as possible.

Were we happy with the results? Absolutely. Because on the day, did we have a failure? No, we didn't. The system did what it said on the tin. So, when we went into the UAT testing, there were still doubts on the day that something might fail, but actually, on the day nothing failed, so we were able to have a successful clearing day.

The service provided by infuse was priced appropriately for the quality service that was delivered to us. The project was estimated to be around 4 to 6 weeks delivery time which they were able to achieve coming in on budget and on time.

Infuse is very active within the higher education community and I have met many of Infuse's customers over the years. All speak highly of Infuse regarding the work they do in the higher education space.

So, I recommend anyone that's looking at testing, to actually engage with Infuse, to look at their offerings."



For more information on clearing visit our website: www.infuse.it

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