Case Study

Servium
delivering tomorrow's solutions today

uclan
University of Central Lancashire

WAN acceleration works its magic for UCLAN

The University of Central Lancashire (UCLAN) in Preston was founded in 1828. UCLAN is now recognised as a world-class institution, following its inclusion in the 2010 QS World Rankings. Today, the University is home to 32,000 students and is responsible for delivering 500 undergraduate and 200+ post graduate courses. UCLAN has been at the forefront of developing degrees in the emerging disciplines of Journalism, Fashion, Forensics and Sports Science. The range of excellence extends to include the likes of Pharmacy, Architecture, Astrophysics and the first new School of Dentistry to be launched in the UK, in more than a century.

The Challenge

When UCLAN decided to embark on a pioneering new project to open an offshore campus in Cyprus, IT would play a major part in harmonising the student experience between their UK site and the new facility abroad.

"The objective for IT was to ensure that students going to Cyprus would have access to exactly the same resources and not suffer in their experience simply because they were studying with us outside the UK." explains Frank Wadmore, Network Manager at UCLAN.

To make this happen UCLAN had to decide between deploying a separate infrastructure on campus in Cyprus or building their own private cloud to deliver what was needed from their three data centres in the UK. The cost of replicating systems in Cyprus would be high and there were many uncertainties surrounding the expertise they could tap into for onsite resources to manage and maintain any on-premise infrastructure. Conversely, delivering the services through a private cloud would be less expensive and put ownership and responsibility for systems in the hands of their experienced in-house team.

Considerations

- Ensure student IT experience was comparable between UK and Cyprus
- Overcome potential bandwidth considerations of operating a Private cloud
- Achieve consistent management of IT services between campuses
- Deliver against time critical schedule

"We liked the idea of a private cloud as our own team would be responsible for harmonising, securing and making available the services. They would also be subject to the same care and maintenance we enjoy in the UK, as well as any refresh cycles we might choose to undertake in the future." continues Frank Wadmore.

However, delivering services from their UK datacentres to Cyprus would not be without its own unique set of challenges. Most importantly connection speeds on the island were uncertain so there were doubts over the feasibility of delivering all of the services they planned through the cloud. Of course, fundamental to this was services needed to be quick and responsive for students.

The Solution

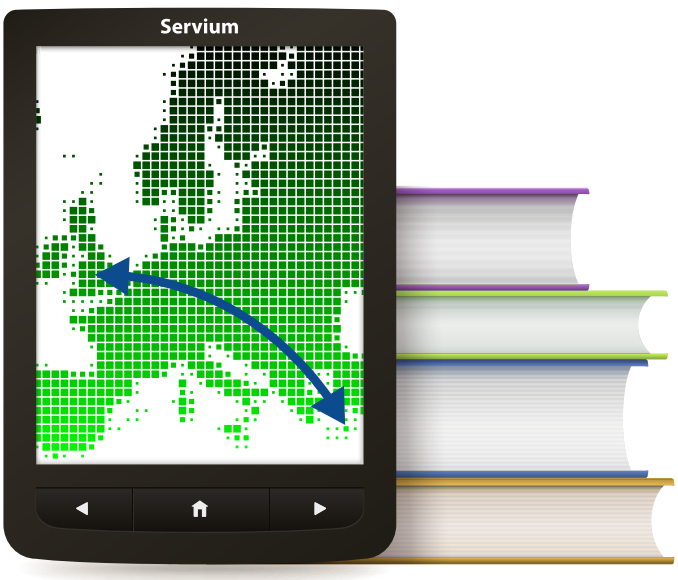
According to Frank Wadmore they needed to hedge their bets. "Whatever connection we ended up achieving we needed to utilise bandwidth to the max and get the best possible performance in Cyprus. That's when we decided to look at WAN acceleration technologies, in particular Silver Peak and Riverbed."

To complicate things further, time was of the essence. The building project for the campus started in February and was due to complete in October. Resolving the connectivity challenge was only one of a number of critical IT projects converging on this date. This meant only a short window of two months would be available to evaluate, test and then deploy the chosen technology.

Before the project UCLAN had no previous experience of working with Servium, who were brought to the table by Silver Peak as one of their expert partners and recommended as most able to help them through to a successful project with all of the pressures being contended with. Darren Cooke, Sales Director at Servium picks up the story "as an experienced Silver Peak partner we were invited to become involved in the project. Time was of the essence so we suggested that we get a proof-of-concept of the solution up and running on their own network in the UK as soon as possible."

Almost immediately loan equipment was shipped to UCLAN and with a small amount of technical support a link was established between their Preston and Wales campuses. This offered UCLAN the opportunity to trial the technology and put it through its paces over a limited bandwidth connection.

"The Silver Peak boxes performed really well. Yet, there was a big difference between trialling over a connection of a few hundred miles and doing it over 3,500 miles! We were nervous that if we went with the Silver Peak solution what would be our recourse if it simply didn't work? It was at this point that my decision was made. Servium and Silver Peak both said if it didn't work they would take everything back. This gave us the confidence we needed." claims Frank Wadmore.



Highlights

- Enabled private cloud using state-of-the-art WAN acceleration
- Proof-of-concept demonstrated technology working for real between UCLAN sites
- Solution delivered using two hardware appliances in UK and Cyprus
- Shadowed UCLAN installation
- De-risked through guaranteed recourse should solution not work

The cast iron guarantees, performance of the proof-of-concept, favourable support costs and attractive commercials due to perpetual licensing, made Silver Peak an easy choice. And with time ticking away UCLAN decided there was no further need to evaluate the Riverbed solution.

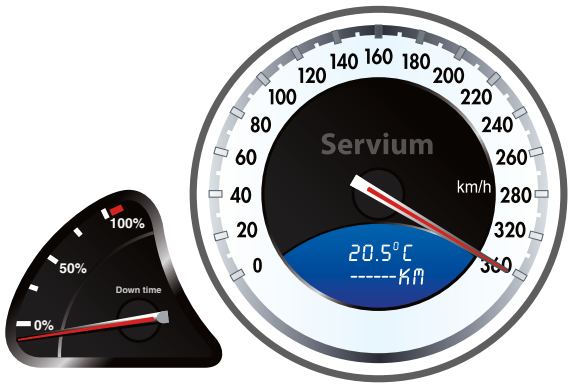
Essentially, the solution would consist of two acceleration appliances, located in Preston and Cyprus. The technology would compress and cache the traffic between the two sites to make maximum use of all available bandwidth. By the time the solution was ready to be deployed the connection speeds in Cyprus had been resolved. Thankfully UCLAN were able to secure a 300MB pipe, which, whilst considerably larger than they initially anticipated was sized to the maximum they believed they would need in the future.

Technically proficient and with plans to support the solution via their in-house team, UCLAN insisted on implementing the solution themselves. They simply requested that both Servium and Silver Peak be on standby to support should it be required and an engineer be on hand to shadow them during the install. Darren Cooke continues "we knew how technical the in-house team were and how easy the solution was to install so we didn't think we would have issues. The result was we sent an engineer to Cyprus and he literally read his book for the day! UCLAN flew solo, the solution went in fine and we were gone by 5pm."

The Result

UCLAN have not looked back and the results have been impressive. Firstly, the solution has been an important component in the success of the private cloud. Only minimal infrastructure is now required in Cyprus and they have one team member to manage this. Furthermore, the solution can be monitored and managed end-to-end from the UK. Most pleasing though has been the bandwidth utilisation rates UCLAN has seen. They are currently only using between 10-20% of the connection, which is great news as there is lots of room for them to grow. Latency of 86 milliseconds is very acceptable also.

What's more the solution greatly improves the data back-up from site to site. "We've had to do very little tinkering with it since it went in – it literally has been set and forget." attests Frank Wadmore.



This was no better demonstrated than when in the early days the entire campus was run from a power generator ahead of their electrical connection being established. Every two weeks the generator required maintenance which meant bringing all IT systems down. Each time the systems were fired back up the Silver Peak appliance returned to action faultlessly, working first time, every time.

The only incident they have experienced was when a drive failed on one of the appliances. A speedy replacement and a live hot-swap performed by the UCLAN team meant that the network did not suffer a moment of downtime.

Outcome

- Exceptional bandwidth utilisation rates – only 20% of available connection
- Solution deployed on time ahead of campus opening
- Zero network downtime even in the event of component failure
- Simple on-going maintenance of solution
- Blueprint network solution for future off-shore campuses

Importantly, the experience and access to resources appears to have gone down well with the students too, as there have been no complaints about poor service or delays.

So pleased are UCLAN with the solution that they are now looking at converting the appliances to virtual solutions which offer even greater throughput and are even more economical to run.

Working with Servium

"Whilst we didn't know Servium ahead of the project, they were introduced to us by Silver Peak as one of their preferred partners. I was glad of their involvement too. All the way through they have been on the ball, very supportive and always willing to own a problem." declares Frank Wadmore.

Price is always a factor in big projects of this kind but most critical to UCLAN has been the spirit of partnership which Servium has embodied.

"I need to be assured that if I have an issue I can ring someone and they will react and make a resolution happen. Servium repeatedly demonstrated this during this project, from making sure equipment was where it was needed and working with us on payment terms which were split part in the UK and part in Cyprus." concludes Frank Wadmore.

The success of the Cyprus project has driven UCLAN to explore further offshore campuses. The solution and relationship fostered with Servium will be an important ingredient in enabling future IT services to be delivered to students at these sites.

About Servium

Servium provides IT infrastructure services for medium to large enterprises in both the private and public sector. We pride ourselves on delivering innovative solutions inspired by overcoming the day-to-day and strategic IT challenges of our customers. We blend the best emerging technologies with professional customer service to answer these challenges and deliver economies previously not possible.

www.servium.co.uk
Tel: +44 (0)844 736 6155
hello@servium.co.uk

@Servium_Ltd
www.linkedin.com/company/servium