University of Cambridge delivers business continuity

Citrix Workspace offers an efficient, sustainable desktop

Gained work from home continuity when COVID-19 struck

When you’re focused on the future, sometimes the everyday gets left behind. The University of Cambridge, one of the world’s top research universities, was suffering from aging IT.

“The university managed IT in the same way for many, many years,” explains Head of Frontline Services, Steve Hoensch. “It hadn’t innovated its desktop delivery very much.” Part of the challenge was the university’s highly federated structure, consisting of 150 departments and 31 colleges, each with its own IT function and budget.

“We started to look at how we could deliver a new desktop experience to researchers, admin staff and students,” Hoensch explains. “We wanted to simplify the estate, give everyone the same experience, regardless of departmental budget, and we wanted to raise the level of desktop IT.”

Another important factor was the university’s commitment to becoming carbon neutral by 2030. Hoensch and the central IT team wanted a virtual desktop solution that would deliver a standard desktop to thin client endpoint devices.

“We’ll have one solution that we deliver to the whole of the university, that covers all its needs and that we control and manage centrally,” Hoensch explains. “With the economies of scale we can achieve, the university departments should be able to stop running commodity IT and get on with more exciting IT services that support the cutting-edge, 21st century research the university is known for.”

Citrix Workspace for the best user experience

Hoensch and his team assessed and tested the leading products in the market, before deciding on Citrix Workspace.

“We chose Citrix because in all the tests we ran against the three top suppliers, Citrix offered the best user experience. It had the best ability to do calls within Teams and Skype, the best video, and the best overall user experience. We ended up with a lower bandwidth requirement on the network than any of the other suppliers. And, when we went through and looked at cost, Citrix was the clear winner.”
The university team chose Citrix Workspace because: “We wanted to give people a more personalized experience, more like they would be used to with social platforms like Facebook, with newsfeeds and so on,” Hoensch explains.

“The micro-application delivery was key because it streamlines everyday tasks which can be cumbersome and distracting in a traditional workflow.

“The Citrix Files links at the bottom of the screen are another reason,” he continues. “They show the documents you’ve been working on recently, so that when you go home, you can click on that and, instead of firing up the full desktop, you just load the application you need. That’s faster and simpler for the user and it requires less power on the back-end.”

There was a local connection as well.

“Citrix was the only company that could support the Raspberry Pi, and there was a nice sense of unity in that,” says Hoensch. Both the Raspberry Pi and the underlying technology for Citrix Workspace (Xen) were invented in Cambridge. “The Citrix element was designed right next door to where I currently work, so there was almost a ‘holy grail’ feeling in bringing Citrix and the Raspberry Pi together to deliver an endpoint that would give people an excellent desktop experience for under £100.”

The team chose to work with Citrix Consulting Services for the design and delivery.

“We thought, if we’re delivering this service as a gold platform for the university, we need it to be done right, and we should work with the experts. Citrix Consulting has been with us since the beginning of our journey and it’s been vital to its delivery. We’ve delivered on time, with no issues.”

Supporting a carbon neutral future with a greener desktop

Citrix Workspace contributes to Cambridge’s green goals in two ways: it reduces the energy required to run desktop IT and it reduces the time and energy people spend travelling to the university unnecessarily.

“The size of the energy saving was quite surprising,” Hoensch says. “Moving people from a 450W desktop PC that’s powered 24/7 to a Raspberry Pi that’s running between 5W and 15W brings a substantial saving. We have over 15,000 desktops on site and that’s not including the students’ own laptops. We spend a huge amount on power.

“Cambridge is an expensive place to live,” he continues, “so a lot of staff travel in from other places including London, Ely and other towns outside the Fens. We were looking at the environmental cost of people needing to drive here just to access their files, do their work, then drive home again, getting stuck in the regular rush hour traffic. Enabling people to work securely and easily from home is another big factor in reducing our carbon footprint.”

Business continuity, delivered at short notice

The opportunity to rollout remote working came sooner than expected. Hoensch and his team were waiting for their chosen NetApp HCI server hardware to be imported when the coronavirus lockdown was imposed.
“COVID-19 forced our hand,” Hoensch says. An initial suggestion had been for staff to take their university desktop PCs home and work from home over a VPN connection. “But, that’s an old-fashioned way of doing things. The machines would no longer be on the domain, we couldn’t control them in the same way and, when they came back into the university, each machine would need to be rebuilt.”

Instead, he says, “We fired up a very quick system, using our existing server hardware, to support our core administrative functions. From day one, 450 people in finance, central admin, the registries, and vice-chancellor’s office could work from home on their personal devices. It didn’t matter if they had a Mac or PC at home, they experienced a Citrix environment that was very familiar.”

Citrix Consulting helped to install the NetApp HCI hardware – under social distancing conditions – once it arrived, recovering the month lost by import delays. As a result, the remote working, Citrix Workspace option is now available to thousands of users. Feedback has been extremely positive.

“Users on our ‘emergency’ platform have said the experience they get working remotely is faster than the experience in their university office.”

A desktop that delivers space to think and create

Citrix Workspace delivers a secure and personalized desktop that will allow researchers, staff and students to work, think and create, wherever they are, whatever the situation. That could include the university’s ongoing research into climate change, its current, urgent focus on COVID-19, or its long-established excellence in physics.

Looking at the immediate future, Hoensch and his team are exploring how Citrix can help support university life where all lectures are online, and exams and lab-work must be conducted under social-distancing conditions. One interim solution being considered is using Citrix Remote PC to give students secure, remote, 1:1 access to individual PCs within the university’s computing labs.

“With Citrix Workspace,” Hoensch concludes, “we have a platform that’s more efficient to manage, that delivers a better, friction-free experience for users, that’s better for the environment and that we can scale quickly to meet demand.”