

Welsh College Teaches Itself A Virtual Desktop Lesson With Nutanix

Nutanix Enterprise Cloud + Citrix Virtual Apps and Desktops = Pandemic Ready, Scalable Learning Platform at Coleg Gwent

BUSINESS NEED

With 24,000+ students spread across multiple campuses, Coleg Gwent in South Wales has set itself a new flexible learning objective aimed at delivering access to teaching and learning resources regardless of end user device or location. The first project to trial this on-campus under way when the pandemic hit, requiring the IT team to rapidly accelerate and scale up wider deployment of the chosen virtual desktop solution in order to keep staff teaching and students learning through lockdown and beyond.

“Having geared up for a switch from local to virtual desktops using Nutanix infrastructure and Citrix Virtual Apps and Desktops we were in good shape to deal with the unexpected. Which was just as well, because the unexpected was just round the corner and coping with lockdown was nowhere near as challenging as it might have been.”

- Evan Smith, ICT Infrastructure Manager, Coleg Gwent

CHALLENGE

Coleg Gwent is one of the biggest further education colleges in Wales with over 1,500 staff and 24,000 students spread across a number of campuses. Towards the end of 2018, the college set itself the ambitious objective of moving away from the traditional classroom and adopting a more flexible approach to learning

INDUSTRY

Education

BENEFITS

- Ability to cope with planned and unexpected growth in end user computing demand through instant scaling of physical and virtual infrastructure resources.
- Robust and easy to manage integrated virtual desktop infrastructure [*Nutanix best practices guide: Citrix Virtual Apps and Desktops on Nutanix](#)
- Highly available and resilient Virtual Desktop Infrastructure leveraging integrated snapshot, data replication and disaster recovery tools.
- Hybrid-ready infrastructure to support future expansion of flexible learning plans using cloud-based services

SOLUTION

Nutanix Enterprise Cloud
Prism management plane
VMware and AHV hypervisors

Applications

- Citrix Virtual Apps and Desktops
- Microsoft Office 365

delivery. An approach that would take full advantage of new technology to connect staff and students alike to teaching resources regardless of end user device or location, be that on campus or off.

The challenge, however, was finding a best of breed solution not only scalable and robust enough to meet this new flexible learning objective, but to do so with minimal disruption and within budget as Evan Smith, ICT Infrastructure Manager, explains:

“The initial flexible learning project would require a solution capable of handling a mix of 4,500 staff and student users across a variety of devices. We quickly realised that desktop virtualisation would be key to this but we also wanted a solution that was robust and easy to manage at that scale and, from a user perspective, as invisible as possible.”

Another, unexpected, challenge would be the need to cope with the Covid-19 lock down. However, that wasn't until much later and, thanks to the solution chosen, proved nowhere near as problematic, or disruptive, as it might otherwise have been.

SOLUTION

As a market leader, Citrix was specified by Coleg Gwent as the preferred vendor for virtual desktop software with a supporting infrastructure provider to be chosen by competitive tender. A number of proposals were considered, from which the college decided on the Nutanix Cloud Platform hosting Citrix Virtual Apps and Desktops. Not only did this combination meet the technical requirements but, as an existing customer of both Nutanix and specialist education partner ET Works, the college was confident that it would deliver on the promises made.

CUSTOMER OUTCOME

Having installed the Nutanix Cloud infrastructure in the college data centre and configured the Citrix software to meet its virtual desktop requirements, the first rollout was to around six hundred on-campus Windows laptops. A rollout that proved remarkably successful with extraordinarily little comment from the users involved.

“We had designed the Citrix virtual environment to be as close as possible to a local Windows desktop, and it worked,” explains Smith. “Once logged on, most of our users simply didn't know they were on a virtual desktop at all!”

The Nutanix/Citrix combination also scored when it came to management with the ability to configure and manage the whole solution from a single console. More than that, the college can continue to scale its end user computing solution to meet the new flexible learning objective and do this almost instantly. A capability that paid dividends when it came to coping with the fallout from the Covid-19 pandemic and ensuing lockdown.

“Lockdown was a big ask for everyone in education,” said Smith, “but we had a number of advantages which made it easier for us to cope. We were already using Office 365 so that helped plus we now had a virtual desktop solution in place with the capacity to not only handle thousands more users but flexible enough to deliver access to online learning resources to staff and students locked down at home.

The team were already developing a virtual desktop profile for just that purpose, requiring only minor tweaking before it could be distributed. Power users running multiple screens could also be accommodated, simply by giving them remote access to their on-campus desktops to run graphic intensive CAD and modelling apps.

NEXT STEPS

One unexpected consequence of lockdown is that, having seen what the Nutanix/Citrix infrastructure can do, Smith is finding it much easier to get backing from budget holders for further projects.

“There’s been a sea change in attitude,” he explained. “From we’re not sure, to ‘Nutanix and Citrix got us through lockdown, what more can we do with it?’”

Beyond continuing the rollout of virtual desktops on campus, the college is now looking to support wider access to learning resources using student’s own devices and custom apps. Smith is also investigating ways of accelerating desktop performance and further scaling the solution to handle the ‘new normal’ of flexible remote learning set to persist in the wake of the Coronavirus crisis.



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