

Better engagement through enriched learning

Rehab Group deploys Citrix SD-WAN

Rehab Group deploys Citrix SD-WAN to enrich the learning experience for students with disabilities and specialist support needs

Technology in education can change lives. Rehab Group is a frontline care and education organisation. It includes Ireland's National Learning Network (NLN), a group of 36 training centres across the country that provide accredited education and training opportunities for people with diverse learning needs. This includes people with disabilities, mental health conditions, cognitive and neurological disabilities, physical and sensory disabilities and autism. NLN's goal is to enable individuals to manage their health and wellness, develop resilience skills, connect with their communities and transition to further education, higher education and employment.

When its previous IT infrastructure approached end of life, Rehab Group decided to move from a standalone model based in individual training centres to a cloud solution, as Head of Information & Communications Technology Gerry Philpott explains.

"We selected a private-cloud-hosted solution based on Citrix which allowed us to centralise the architecture in our data center. That meant we could improve IT governance, management and security centrally, rather than relying on locally administered IT."

The move to cloud was the first step in a strategy to deliver richer services to the training centres. However, Philpott continues, "The downside of moving to a centralized environment was that wide-area network connections became critical to training centre operations. There was only a single MPLS or DSL connection at each location and, if that link went down, the centre was completely off the air. We lost all capability to deliver solutions. Even when online, many training centres simply didn't have enough bandwidth."

Citrix Gold Solution Advisor Edge7 Networks proposed a solution using Citrix SD-WAN to add an additional ADSL connection to supplement each training center's existing MPLS or ADSL line. The solution also included a 4G connection as back-up, with Edge7 providing management across the network.



Industry
Education

Location
Ireland

Citrix products
• Citrix SD-WAN

Key Benefits
• Citrix SD-WAN ensures a resilient and reliable, high bandwidth connection for 5,500 students and staff in 41 training centers

Improved bandwidth means a better learning experience for students

Philpott and Edge7 began with a proof of concept.

“We implemented Citrix SD-WAN, using only 4G as a second circuit in one of our training centres with the greatest bandwidth problems and it proved very successful. In fact, when our MPLS provider had a major outage, that site was the only training centre that didn’t suffer. They were unaware that there had been a problem,” Philpott says.

Rehab Group quickly rolled out the full solution, with supplementary ADSL, to all 36 NLN training centres.

“It’s all very positive and the experience to date has been excellent,” he continues. “Previously, we had training centres with bandwidth as low as 1 or 2 Mb/s. With Citrix SD-WAN most now have bandwidth in the hundreds of Mb/s, which means they are absolutely primed to use cloud-based services. Every single training centre has seen a significant uplift.”

“Before, we had regular outages and performance issues on the network. With SD-WAN those problems have just disappeared. We now have a rock-solid environment, so we can focus on delivering feature-rich application services instead of the underlying plumbing.”

As a result, he says, there’s been a “sea-change in the quality of what we can provide.” Included in the upcoming changes are Office 365 email accounts for all students and Microsoft Teams for Education as well as a much greater use of audio-visual learning materials and video to support teaching.

“Our students have a range of diverse learning needs, so it’s not a typical classroom environment. Visually rich solutions that support students in engaging with the class and understanding what’s going on are really important. Accessibility is a huge issue as well and we’re now able to use Microsoft Immersive Reader and other technologies to help enhance the environment for the students. The whole point is we want more students to experience a top-class learning experience with us. We want to be leaders in the services we provide.”

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**Gerry Philpott
Head of ICT
Rehab Group**

Continued learning during lockdown

Rehab Group's strategy to move to a Citrix-enabled, cloud-hosted environment means that learning can continue beyond the training centre boundaries.

"Flexible learning solutions are critical success factors for our students.

Full attendance in a training centre may be a challenge for some students if managing external demands such as a changing health condition or a short-period of hospitalization. As a result of changes like this, students can sometimes disengage from their studies," Philpott explains, "so our aim was always to provide the opportunity for students to access their coursework and learning materials from home."

The strategy also means that learning can continue when events prevent the training centres from being open, as Philpott says, "The Covid-19 crisis has forced our training centres to close but the fact we have the Citrix environment means that our students are still operating from their homes. They can access course materials from anywhere on any device. In the last two weeks we've seen a fourfold increase in the number of people using Teams on a daily basis."

Improved security and lower costs

Beyond a richer learning experience and more flexible access, Rehab Group's new environment also improves security and saves money.

"The fact that all connections are encrypted means the training centres now enjoy a level of security that simply didn't exist before. That helps me enormously from an IT governance and management perspective, but it also ensures we meet the levels of security required to receive funding from government bodies."

Ongoing costs will reduce as training centres switch to cheaper hardware and lower cost connections.

"The beauty of implementing a solution like this is that we can deploy thin clients," says Philpott. "In the past, we've mostly used expensive desktops and laptops, and, in an environment where we're wholly funded by government organisations, budgets are tight. Replacing, say, 20 PCs was not an easy thing to do. Moving to a Citrix, cloud-based solution means we can deploy much cheaper thin clients."

As the company's MPLS contracts expire, it will move its training centres to a standard model of two ADSL lines with a 4G back-up.

"We're well aware that MPLS networks are very much legacy solutions. While they offer consistent service, they're expensive and unwieldy," Philpott explains.

"As our MPLS contracts come to an end in our other [non-education] services, we fully expect to deploy Citrix SD-WAN to all our centres. That's 170-180 locations."

Providing every location with reliable, cost-effective bandwidth opens the opportunity to add additional services.

“Telephony is a critical area for us,” Philpott says. “Currently, we only have a central phone system for our head office. There’s no integration with our various branch locations. Having Citrix SD-WAN means we can look at a group-wide, cloud-based telephony system that would reach beyond Ireland to our services in Scotland and Rehab Enterprises factories in Poland. At the moment they’re all very much isolated but our strategy is to bring everybody into the group services. That will give us huge economies of scale and benefits of standardization.”

“Moving to the cloud and Citrix, with SD-WAN, gives us a modern environment that allows us to deliver new services and learning capabilities,” Philpott concludes.

“I couldn’t be happier from a networking perspective and I’m counting down the clock until we can extend the environment to our other services.”

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