



Delivery of digital education experience across geographies, endpoints, learners, parents and educators



Collaboration between schools, teachers, learners and learning resources



Comprehensive educational technology platform serving users through an innovative digitally integrated experience

Curro Schools Always Putting Learners at the Heart of Education

Curro's virtualised datacentre helps traverse clouds, geographies and education mediums

Future educators are today grappling with how to deliver education solutions that support the changing demands of learners. Leveraging the power of technology, the independent school group, Curro Holdings, has partnered with VMware to transform its technology infrastructure, enabling it to deliver a truly digital education experience across geographies, endpoints, learners, parents and educators.

Established in 1998, Curro is South Africa's largest independent education provider, with over 178 schools across 70 sites. It develops, acquires and manages independent schools for learners from three months to Grade 12 and seeks to empower every person with the opportunity to achieve their potential as individuals and members of society.

Creating future-based education solutions

According to Riaan Vlok, Head of IT at Curro Holdings, the real test on educators is using technology to bring the curriculum to life in a digitally-centred world. Curro pioneered the use of digital textbooks or "ink behind glass" in South Africa early on. The digital transformation journey that Curro embraced now requires a media and content-rich educational experience that teachers, learners and parents are now used to in other areas of digital life. The Curro infrastructure had to adapt to this requirement where augmented reality, asynchronous and synchronous learning blend seamlessly with the physical classrooms.

CURRO

Curro Independent Schools is South Africa's largest independent education provider, with over 178 schools across 70 sites. www.curro.co.za

INDUSTRY

Education

HEADQUARTERS

Cape Town, South Africa

ABOUT THE PARTNER

First Technology Western Cape
www.firsttechnology.co.za

VMWARE FOOTPRINT

VMware vSAN
VMware vSphere
VMware Integrated Containers
VMware vCenter



“In Africa, many are battling with the transition from traditional learning methods to a digital learning experience due to their limited exposure to the digital world. Digital-led education is changing the way learning is delivered to learners across the world mainly because of the high Digital Intelligence Quotient (DQ) that exists in developed markets. At Curro, we want to deliver education centred around the learner, and all our systems must support this insight-driven educational experience that enable learners to absorb learning better wherever they are.”

Curro’s technology landscape is made up of a centralised datacentre, on-site datacentres, and an intricate network fabric that needs to cater for over 60 000 endpoints and supports 11 terabytes of traffic a day.

“Unlike other school (K-12) technology ecosystems, ours is run as a centralised network that integrates all our business and educational systems. Our centralised enterprise network is a key differentiator in our approach to the digital transformation journey, as most other school networks or districts run their own systems and only integrate the information between them. In our business, everything, from cybersecurity, educational platforms and business systems is centralised.”

It is this very setup that Vlok said formed its decision to pair with VMware. “It required a data centre solution that could help it execute on a hybrid cloud strategy, and still support and leverage current hardware investments. The movement of educators, learners and digital resources within the school system required a re-evaluation of the network ecosystem”, Vlok said. “It required a solution that would let it leverage the benefits of a cloud-first strategy without devaluing the investments made in the existing infrastructure. Practically, the solution has to allow for sharing, movement and collaboration between schools of teachers, learners and learning resources.”

As it started to scale, Curro identified issues within its data centre

strategy, particularly with disaster recovery and redundancy. Its hardware assets were reaching end-of-service life, but instead of ripping and replacing these assets, Vlok and his team wanted a technology solution that would use these assets as a storage, processing and memory pool for the next seven - eight years. This would then help it transition, on its terms, between a full on-premise and full cloud solution, without having to write off the hardware investments made.

Education that is always-on

After extensive investigations, Curro partnered with First Technology Western Cape, a VMware reseller and systems integrator, to help the company deploy a virtual data centre. The solution included VMware vSAN, VMware vSphere, and all the sub-services within vSAN.

“Investment into digital transformation gets stuck at the point of technology execution because of infrastructure costs. Our virtualised VMware datacentre lets us marry our physical assets to the physical application and centrally manage them while adding a cloud fabric where it makes sense. In short, we can digitally transform and leverage the benefits of the cloud without expecting users to change the way they work,” says Vlok.

With vSAN, the company is less hardware-dependant and turned its traditional, often idle infrastructure, into a high availability data centre using a vSAN stretched cluster – enabling it to perform disaster recovery more effectively. Vlok says he is now able to significantly improve the management of the demand-driven technology requirement by “bursting and shrinking” cloud capacity from his cloud service providers.

“In Africa, we still face bandwidth issues. Our new infrastructure lessens the reliance on bandwidth, delivering a reliable in cloud and on-premise offering, stretching across both.”

RIAAN VLOK
HEAD OF IT
CURRO HOLDINGS

“Our core product is education which is available at all times - in the classroom or remotely. In Africa, we still face bandwidth challenges, so our new infrastructure lessens the reliance on bandwidth by delivering a robust multi-cloud and on-premise offering, stretching across both.”

Bridging the digital education divide

Vlok says the environment now supports its desire to provide reliable education anywhere, and learners working remotely now have access to the same platforms they would have had at

schools, bridging the gap between traditional schooling and the various forms of remote schooling.

By virtualising a large proportion of its services, it is more agile and can write applications in containers. An active-active recovery environment versus a traditional active-passive one means fewer capacity issues, particularly around “reporting and marking” season, when the system undergoes immense pressure three times a year as educators need to upload, cross-check and share information regularly.

“We have seen a massive increase in our ability to scale and prioritise workloads, right down to a code and development level. We are planning to introduce artificial intelligence (AI) with our VMware solution to help us dynamically allocate infrastructure and resources. Looking ahead we want to use behavioural AI to help prioritise IT services as well as map our responses to events,” he says.

“Ultimately, we can now incubate innovative technical solutions



and if we fail, we can fail quickly with minimal consequences. This allows us to deploy innovative solutions faster than ever.”

“Curro is an excellent example of a learning institution that understands the modern learners needs. By adapting to the times and embracing new technologies as a tool to modernise its approach to education, its clients which are its learners are the true beneficiaries,” Gerhard Horn, Datacentre Architect at First Technology, Western Cape. “Working with Curro as an IT partner, has been a very rewarding experience, as it is deeply committed to reducing the costs of education to learners, and consistently turn to technology to facilitate.

“The organisation’s approach to innovation and the way in which its IT teams have embraced the agility afforded to them with a VMware- Software Define Data Centre (SDDC) highlights how they are not just trying to stay ahead of modern education, but setting the standard today. Their foresight of the importance of distance and remote learning is particularly relevant today as we face global challenges that demand flexibility in remote working and learning solutions,” adds Horn.

Looking ahead

“We are creating the most comprehensive educational technology platform available today. It must serve school administrators, teachers, parents and learners through an innovative digitally integrated experience,” concludes Vlok.