An education environment for 21st-century learning

Vodacom’s MPLS VPN solution provides connectivity for Curro’s pioneering e-learning strategy
Vodacom Business partners with Curro for 21st century learning

Vodacom Business connects Curro to an education environment for a better, bolder and stronger business platform, thus driving its vision for a better South Africa.

Introduction

Curro’s teaching model involves continuous exposure and interaction with technology. Its pioneering e-learning strategy is bandwidth intensive (and set to grow year-on-year) and it has entrusted Vodacom with its connectivity.

Vodacom’s MPLS VPN solution enables new methodologies and is improving educators’ ability to teach and engage. The way in which organisations engage and interact with the world around them has changed significantly, as has the technology that enables this exchange. Vodacom Business is the key enabler of digitised solutions and caters for an evolved digital landscape by seeking ways to deliver simplified products that make it possible for organisations to make the most of voice, video and data interactions.

Multiprotocol Label Switching (MPLS) VPN ensures a private network connection that securely and cost-effectively links multiple sites, regardless of geographical location. It also maintains the highest level of performance for voice, video and data applications. MPLS provides several advantages to users, such as scalability, security, redundancy and Quality of Service (QoS).

Vodacom’s VPN solution is based on this MPLS technology, unlocking all the cost benefits of a shared network infrastructure without compromising quality. By design, it allows users to create end-to-end circuits across any type of transport medium using any technology.

The attraction is its ability to provide service differentiation, enabling different applications to be prioritised across the network, based on the needs of the business Class of Service (CoS) capabilities. The support of end-to-end QoS helps to ensure time-sensitive traffic is given priority and that stringent latency requirements can be met.

Vodacom offers guaranteed network performance and security solution with MPLS which benefits medium to large enterprises that wish to consolidate voice, video and data traffic in a converged environment.
Summary

Despite the substantial budget allocation by national and local government, there remains a shortage of quality schools and educators in South Africa. Curro Holdings is closing the gap through the provision of independent school education by developing, acquiring and managing a number of independent schools across the country. Its vision is to make independent schools education accessible to more learners throughout South Africa.

The Group currently supports more than 40 individual sites nationally and has about 35 000 learners enrolled from three months to Grade 12 in nursery, primary and secondary schools. It aims to reach 80 schools (accommodating 80 000 learners) by 2020. A number of these schools are part of urban-edge developments where fixed line connectivity is not always available. Newly built facilities are subject to high expectations from students, teachers and parents, while local legislation makes telephony a prerequisite for their opening. With more than 27 000 learners actively engaged on its network, Curro has extremely specific, stringent information security requirements that need to be managed without hampering accessibility.

Curro’s incumbent service provider lacked the infrastructure to deliver reliable connectivity in some of the Group’s more remote sites. The use of 3G and 4G as a stop gap was prohibitively expensive.

Vodacom’s MPLS VPN solution was chosen for several reasons – the unrivalled geographic footprint required flexibility to create solutions that satisfy Curro’s education – and business-centric needs, and the innovativeness and quality of resources.

Benefits

• A common, reliable platform from which a wide range of services can be offered, including multimedia, VoIP, video conferencing, multicast, ERP and access to VPN
• Reduced VoIP and operational costs
• Improved visibility and reporting
• Easy scalability for new sites, with rapid provisioning
• Safe, secure internet access
• SLAs direct with carrier alleviate the need and hassle of dealing with third parties

Quality of service

Apps like VoIP are intolerant to latency and other irregularities. MPLS’s QoS capabilities guarantee bandwidth between each site and Vodacom’s network. Curro is now able to enjoy a 1:1 contention ratio, point-to-point.

Cost efficiency

• VoIP has enabled an average 35% reduction in telephony spend
• Curro has collapsed its software licencing from 41 individual sites into a centralised single licence, at a significant reduction in cost and administrative time
• It has digitised its physical security operations. By replacing certain guarding functions with CCTV, Curro can secure assets at a lower cost

Workflow description

Vodacom currently hosts all Curro’s servers, telephony and internet. Access is via an MPLS VPN private network, with point-to-point microwave connectivity in those areas where fibre is not available.

All sites are connected to the Curro data centre, situated at its head office in Durbanville, Cape Town. Internet access is through a single breakout from this data centre through a central firewall, ensuring maximum control over connectivity and security policies.

Curro is 100% reliant on connectivity to deliver its core services. Because South African schools close early in December and reopen in mid-January, the entire installation was completed within this very short time frame, during a period when industry resources are at their lowest. When the initial migration took place in December 2012, Vodacom exceeded client expectations with its rapid roll-out without any down time for the business.

Curro has since exceeded its own growth expectations, provisioning a further 13 new schools nationally in 2015 alone, doubling its new school roll-out.

Vodacom provides hosted PBX for each new school, VoIP services to all sites, 10Mbps line per site, with dedicated internet access of 140MB and additional 3G backup to the network via APN.