

High School Oos-Moot

High School Oos-Moot is in South Africa's capital city, Pretoria, and is a secondary school that caters to some 1,500 pupils and 90 staff members. In keeping with its commitment to a strong and rounded education, the school required a modern IT infrastructure, implemented by a reputable deployment partner.



Customer
 High School Oos-Moot

Country
 South Africa

The challenge

High School Oos-Moot faced a challenge similar to many other educational institutions, in that it had a legacy network consisting of non-enterprise network switching and access points. The wireless local area network (WLAN) was extremely inconsistent, did not offer adequate coverage, and was unreliable at best.

According to Johan Meyer, the school's terrain and building manager, three separate networks had been installed and expanded over time—creating a disparate and highly confusing scenario for the user.

"These networks were LTE driven, with only one of the networks being connected via an outdated and very small firewall. More than this, some essential areas were not directly connected to the LAN—meaning they had no internet access and were functioning as standalone networks," he explains.

"Furthermore, only a selected number of on-site network office machines were connected to one of the LANs, and telephony was also not up to standard. This meant the school had to employ the services of multiple service providers for the management and upkeep of this distributed scenario."

Meyer adds that, due to the separate and uniquely different networks established over time, each had its own unique challenges. Moreover, their problems were also occurring very frequently, and local resources as well as external service providers were constantly having to fix issues that suddenly arose.

"It became extremely frustrating for the users—to the point where staff could no longer rely on the Wi-Fi at all for uninterrupted teaching purposes. Costs were escalating and continuous fault calls required constant attention. It was clear something had to be done to improve the situation."



The CommScope solution

A wide range of products were recommended by CommScope to solve Oos-Moot's challenges. These included installing CommScope Category 6 cabling, as well as singlemode fiber-optic cabling, while cable routes were also required for all new cabling. Various port switching solutions were deployed, along with 10G stacking licenses and several different RUCKUS® access points.

In addition, Sinewave double conversion UPSs—including surge protection—were implemented for all cabinets, along with a network monitoring server, which included sensor licensing for all LAN devices. Voice-over-IP (VoIP) handsets were installed to make voice communication much easier and more effective; and, finally, a large CCTV system—including four-megapixel FHD cameras and related head-end NVRs, server and software—were also installed.

The results

Meyer points out that, despite the complexity, the complete installation was undertaken in less than four weeks—meaning it was ready by the time school opened again.

"The results have been incredible: We now have consistent wired LAN performance along with logical and sensible VLAN planning and deployment. We have increased our WAN bandwidth and uptime, not to mention coverage, stability and concurrency, as well as our cyber-security approach on upstream WAN."

"Furthermore, we have unified all networking devices and services onto a single network structure and added 73 IP-based full-HD CCTV cameras for physical security."

Other aspects of the project he highlights include future-proofing as well as expansion and flexibility options; a full, fiber optic-based backbone structure with increased bandwidth availability; a unified voice platform and general voice improvement; and the addition of UPS units to assist in dealing with South Africa's notoriously erratic power utility supply.

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Terrain and building manager,
High School Oos-Moot



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South Africa schools have a dire need for both modern IT infrastructure and reputable deployment partners, notes Meyer. Schools have historically been limited by CapEx availability in implementing such infrastructure projects. This has led to them often committing to inferior and inexperienced service providers—resulting in many

schools ending up frustrated with the world of IT, when their initial plan was to embrace the future.

“This project has not only eliminated such frustrations for Oos-Moot but will assist us with marketing our school as having a truly modern IT infrastructure—something to which potential new students are definitely attracted to. The work done by Emtelle and CommScope at Oos-Moot is a demonstrable example that schools can, in fact, afford to have top-notch IT infrastructure—when a trusted and adequately certified partner is chosen to assist in this journey,” concludes Meyer.

About RUCKUS Networks

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