Training and development for teachers is vital

E-teaching requires reliable connectivity

Raising a Ruckus in class?

UC-Wireless is creating uproar in Wi-Fi and e-learning solutions across South African schools. Michael Berger explains why.

By Karolina Rafalski

UC-Wireless, serving South Africa and Africa since 2002, specialising in anything wireless, is creating a following amongst educational institutions when it comes to Wi-Fi and e-learning. They have identified the demand for expert Wi-Fi and e-learning solutions, not only in South Africa but in Africa too and already have an impeccable track record due to the various schools at which they have successfully implemented their solutions.

Michael Berger, Sales & Marketing Head of the Education/e-Learning Division at UC-Wireless, talks about the importance of dependable Wi-Fi solutions in order to maximise the reliability of e-learning in schools today. This single father's passion for education is evident as he boasts numerous Chairman and Trustee positions such as being the current Chairman of his son's School Governing Body, the Vice Chairman of his daughter's School Governing Body as well as being elected to the Gauteng Provincial Board of Trustees for the Governing Body Foundation. Michael often does talks at schools with the goal of helping parents, educators and learners alike, understand the significance of reliable Wi-Fi and e-learning solutions for all education institutions.

UC-Wireless stresses the importance of expert Wi-Fi solutions. Why is this so important when it comes to e-learning?

An enterprise Wi-Fi solution is the foundation of any e-learning solution, without the correct Wi-Fi and expertise around it an educational institution is at a severe disadvantage from the get go! Schools' budgets get exhausted on mediocre solutions due to "cutting costs". This in the long run may cost schools even more as they often result in ongoing problematic Wi-Fi connectivity and therefore interrupted e-learning as has been witnessed first-hand at many schools already!

UC-Wireless boasts an impressive track record with regards to the number of schools your Wi-Fi solutions and services have transformed, Sunward Park High being one of them and being named the first school to pioneer a 100% digital or e-learning solution.

Yes, we are very proud to have been the only company to be able to come in and sort out their countless challenges around their Wi-Fi infrastructure and they are not the only ones! Other schools that we have provided solutions for, ranging from 500 to 1 800 concurrent learners, include:
- Brackenhurst Primary School
- Springs Boys High School
- Prestige College
- Falcon Educational College
- Roshnee Islamic School (2013's best performing school in Sedibeng East for Grade 12)
- Boksburg High School
- Hoërskool Eldoraigne

So what does UC-Wireless offer that is different?

UC-Wireless has the best possible Wi-Fi product partner in Ruckus Wireless, coupled with one of the best skilled radio frequency engineers in this country, that being Quentin Daffarn, the Managing Director of UC-Wireless. This enables us to provide effective, efficient holistic solutions that deliver the necessary foundations on which to enhance and improve e-learning and therefore education in specifically.

What is the market demand and need?

The education market in South Africa is massive and forever evolving, comprising ordinary schools, rural schools, the so called former Model C and suburban schools, semi-private schools, Colleges, private schools, boarding schools, special needs education centres, FET colleges, training centres and universities.

There is a growing demand and need to implement e-learning and Wi-Fi deployments into all of these various channels based on their specific infrastructure, resource, strategies and adherence to governance and management.

Why should education facilities use UC-Wireless?

UC-Wireless has done extensive research in this field, operating for 12 years, and we therefore not only have a

Many SA schools have implemented e-learning

Textbooks available on a digital platform

passion for education but we have the in-depth knowledge, skill and expertise as well as leading industry partners at hand. Our goal is to provide a school or educational facility with an expert viable solution coupled with our underwritten guarantee that whatever we do deploy, will work for the number of high density concurrent users with a minimum guaranteed upload and throughput speeds and coverage. An added value is that anything that we do or offer to the South African market is applicable to Africa as well.

How is it better than other products?

Technically speaking our solution has the following (among many other benefits):

*   Beamflex and now Beamflex Plus, patented by Ruckus Wireless ensures:
    o   Automatic interference mitigation with a better throughput.
    o   Each tabled or device benefits from two to four times more gain, which results in optimal speed and better performance at range that other solutions.
*   Band steering and airtime fairness, ie each user gets exactly the same amount of airtime and this means fast Wi-Fi.
*   Future proof dual band APs 2.4GHz and 5GH to accommodate the future growth of tier 1 tablets that will soon evolve to there being many more that are 5GHz enabled.
*   Fewer APs, since Ruckus uses up to 70% of the number required by other solutions, and this further improves performance and cost effectiveness.

What are the advantages of using UC-Wireless solutions?

Advanced per user security and separate learner and educator policy enforcements as well as reliable and predictable connectivity. The result is a self-provisioning and self-optimising high speed wireless backbone. Our service includes simple deployment, administration and simplified device registration. We also provide complete remote or off-site control management of all APs and controllers. Simply put, we believe we have thought of everything but as needs arise, we accommodate them too!

What is the affordability and durability like?

UC-Wireless deploys its Ruckus Wi-Fi solutions with the fully backed Ruckus Wireless software and hardware support and lifetime warranties. Further, as a result all software and firmware is continually upgraded and a monthly remote management and monitoring service ensures that the solution is maintained and managed on an ongoing basis.

Why is this great news for the South African and African market?

UC-Wireless is able to pass on special education discounts and written guarantees for design, performance and capacity based on the extensive proven track record by UC-Wireless themselves and internationally with Ruckus Wireless.

What is your view on the current and future status of education in South Africa?

There has been much debate between private and public schools educational standards in recent years. Each presents it's own unique value, challenges, statistics and outcomes that are sometimes difficult to compare against each other although both remain exciting and dynamic. A child's education is a tri-partied relationship between the parent, learner and the educator. On a school management level a cohesive and collaborative working relationship needs to exist between all the various stakeholders and organisations that must ultimately realise the best interest of the learners above other. I firmly believe that more emphasis needs to be placed on making teaching a "profession of calling and duty" as opposed to just another job that pays the bills. There is a serious need to focus on the training and upskilling of teachers as well as the upskilling of school management teams and leaders, from the ground up.

2014 is a watershed year where the exploratory period of a "wait and see approach" is culminating in schools which are now seriously beginning to embrace the digital divide and implement e-learning. However, an apprehension still exists predominately around educators themselves. There needs to be a drive on e-teaching in order to transform the educator's mindset in seeing the value of e-learning. Teachers need to be informed on how to use e-learning effectively and to understand that technology is there to assist them in enhancing the learning experience and not take it over or control it.

UC-Wireless (Pty) Ltd offers a selection of tools and solutions for anything wireless in an array of industry segments and not only in the education sector. Other vertical markets include healthcare, retail, warehousing, hospitality, mining, casino/gaming, production/industrial and enterprise. ●

The help desk

The St Dominic's server room

A case study on how the IT infrastructure
for St Dominic's School for Girls was renewed
by Dial a Nerd

St Dominic's Catholic School for Girls, was established in July 1923 as a forward thinking, independent academic institution. Keeping in line with the school's dynamic belief systems, many exciting and innovative building projects were undertaken over the years.

November 2013 saw the start of one of the most ambitious undertakings to date – the renewal of the Media and Computer Centres, with Dial a Nerd as a key partner.

In just four months, this extensive project was completed successfully; thanks to the impeccable teamwork, communication and creative planning from all involved.

The vision
St Dominic's vision for the future was to implement modern technology throughout the school, establishing an environment which would be conducive to learning anywhere, anytime, while offering both students and teachers up-to-date educational resources.

The main objectives were the following:
- Internet access throughout the entire school grounds with wired and wireless options
- Teachers and admin to be issued a new laptop, for work use, purchased by the school
- Learners to be provided with varied learning resources according to grades, for example:
  - Two computers and six iPads in Grade 0 classes
  - School-owned laptops, in conjunction with Kindles, for Grades 6 to 7
  - Grade 8 to 12 students, a personally owned laptop with a photo ID printed on the back for security purposes
- An ICT helpdesk to be setup, for the management of all staff and student laptops
- To equip every classroom with a standard configuration of four network points, a wireless access point, a laptop with a docking station and an interactive projector and white board

- To add user-friendly printers to the new network, allowing teachers and admin staff the ability to print throughout the school, from a central printing hub with their unique staff member identifier

In order for the project to be successful, Dial a Nerd had to establish a robust infrastructure that would allow 200 staff members and 1 200 students to connect simultaneously to a variety of devices including printers, switches, projectors, cameras and VoIP phones.

Multiple workshops and brainstorming sessions were held when challenges arose, and culminated in a variety of creative solutions. This kept the project within budget, without compromising on the quality of the installations or disrupting the normal school operating schedule.

What was supplied and installed?
- Dial a Nerd identified the need for 77 laptops that were distributed between teachers and administrative staff.
- 18 network cabinets were supplied and installed in 14 buildings on the school grounds.
- 24 high-end power over ethernet switches were supplied to provide network infrastructure.
- Over 500 network points were installed, with a minimum standard of four per classroom and two in each office.
- The server room was rebuilt and a high-end Dell SonicWALL firewall was installed, as well as interactive whiteboards in the classrooms, which were supplied by Compute.

Safe access to the internet and its information was essential for the learners, which was made possible by the investment of a firewall with user-management and a good content filter.

St Dominic's Chief Information Officer, Harry van der Burg, was part of the project every step of the way. His supervision ensured that the vision of a modern technology-based school, with learners and staff having access to the best educational resources, was brought to life. "We were very satisfied with the results provided by Dial a Nerd and the professional way in which the project was completed." ●

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