What's all the ruckus about

Technology that holds the most patents for innovative Wi-Fi, which creates real value, performance and reliability, is creating waves. With over 60 patents on Zone Flex (the access points which provide Wi-Fi), only Ruckus Wireless enables UC-Wireless, a specialised wireless solution distributor and integrator, to provide powerful Wi-Fi solutions to many education, hospitality, industrial, and enterprise businesses. Some of the key benefits are explained in the video: http://www.uc-wireless.com/products/ruckus/why-ruckus

Growing in market share at an alarming rate, Robert Mustarde, VP of Marketing for Ruckus Wireless said: "Given our late entrance into the enterprise wireless LAN market, our growth is a remarkable achievement by anyone's standards."

According to Gartner, recent growth was in excess of 130% , and even above 200% in prior periods. Mustarde further said: "Our hope is to continue this fast growth as the market sends a very clear message that they want Wi-Fi that simply delivers more reliable wireless connections, capacity and insane performance. Whether it's a hotel, school, hospital or mobile operator, vanilla Wi-Fi doesn't cut it any longer."

Schools, Colleges, Universities and even Convention Centres are now facing the growing demand to provide wireless connectivity to hundreds and even thousands of users, in close proximity to one another, simultaneously! The industry calls this "High Density Wi-Fi". This is a game-changer. "Vanilla Wi-Fi" is essentially any technology available that cannot provide effective control over its wireless signals, amongst a host of other limitations. Users in offices relatively spread out may "get by" by using "vanilla Wi-Fi", though not with show stopping performance.

It appears that many vendors of Wi-Fi to these sites do not understand the problem and like a negative spiral, as providers try to solve the challenges of High Density Wi-Fi, the steps taken actually make the problem worse.

This ultimately results in a waste of precious school and university fees, since the outcome eventually reaches a dead end with a completely unworkable solution, but the money has already been spent!

Case Study

Ruckus Makes the Grade
at St. Vrain Valley School District

St. Vrain Valley School District, located 30 miles north of Denver, is one of the largest school districts in Colorado. St. Vrain serves 13 communities via 26 elementary, 10 middle, and 9 high schools spanning 411 square miles. The district is comprised of 27,000 students and 4,000 faculty members all accessing 10,000 network devices, including 3,500 laptops.

St. Vrain understood that in order to elevate both the learning and teaching experience they would need to create an untethered and ubiquitous wireless experience, vastly improving upon their deficient pre-existing WLAN infrastructure. This would be no 'easy A' given the school district's expansive size, limited budget, and overtaxed IT staff.

Many of St. Vrain's buildings were RF challenged. One middle school's science lab was — and still is — surrounded by metal materials and electrical equipment, making Wi-Fi signal propagation virtually impossible. Their new WLAN would have to pass some big tests...and Ruckus did. During one stress test, 60 concurrent devices connected to one access point (AP). All were simultaneously streaming video from two classrooms — and never lost signal.

St. Vrain replaced their prior installed enterprise WLAN infrastructure with a Ruckus 802.11n WLAN consisting of 657+ ZoneFlex dual-band indoor APs (ZF7962/ZF7363), 34 ZoneDirector controllers (1000/3000) with Smart OS, and FlexMaster centralized Wi-Fi management.

Ruckus
Simply Better Connections.

UC-WiRELESS
UNIFIED COMMUNICATIONS - ANYTHING WIRELESS

Wi-Fi ?

Many users need to connect, so the number of access points is increased, which in turn creates "self-interference" with the other access points. "Vanilla Wi-Fi" transmits its signals in all directions with almost the same power levels, ignoring the fact that the AP is trying to communicate with its users in only one direction at a time. Wi-Fi uses a limited number of non-overlapping frequencies, which further compounds the problem as signals now overlap, resulting in ever slowing connection and reduced data speeds, until eventually no more users can connect and those that did manage to do so actually cannot use the connection as data transfer has slowed to a snail's pace or stopped altogether.

Imagine a crowded party where the music gets louder as the room fills up. Everyone then shouts louder but eventually no more meaningful conversations can be achieved!

Does this sound familiar? UC-Wireless has solved these challenges for many sites, especially those with high density. Using Ruckus Wireless' patented technology which no school can afford to be without, they design a solution which has the necessary user capacity, having access points (APs) that cover the operational areas, sometimes even wirelessly, with Ruckus' Smart Mesh. These APs operate in harmony with one another, by minimising interference,

increasing speed and even video performance, simultaneously, all with unprecedented security!

It is estimated that over 5000 educational institutions globally have selected Ruckus Wireless. The question for the growing market in Africa is: Can your site afford to not to take advantage of these benefits. UC-Wireless is leading the way for African Universities and South African educational institutions to take advantage of these benefits.

By Quentin Daffarn, Pr Eng, BSc. Eng (Elec), Managing Director.