

First Commercial OpenWiFi Solution in Africa with NetExperience

This deployment is a partnership between Atlancis (an Open System Integrator and Cloud Service Provider in Kenya), the Kenyatta University, the Kenya Education Network Trust (KENET), and the National Research and Education Network (NREN) of Kenya. The deployment will use NetExperience cloud controller and access points from Himachal Futuristic Communications Ltd (HFCL) and Cambridge Industries Group (CIG).

Atlancis Technologies is a system integrator based in Nairobi, Kenya. It is an ISO-9001-certified company, a member of the Telco Infra Project and an Open Compute Project (OCP) Solution Provider. With a staff of fifty, the company is the first to deploy OpenWiFi on the African continent; their ambitious goal is to eventually connect ninety University campus sites across the country, starting with the Kenyatta University campus. The deployment will provide internet connectivity to over 75,000 students.

This will be the first time that a cloud-based open architecture Wi-Fi network will be deployed in Africa. “The main philosophy is the disaggregation of hardware and software, and open Wi-Fi is an extension of what we have been doing using our own cloud platform,” said Paul Statham, Regional Commercial Director at Atlancis. The goal is to provide massive CapEx and OpEx savings to clients in networking as has been proven with data center clients in Kenya. The savings from commodity hardware will enable clients to focus on investing in differentiated development and market differentiated software.

The Challenges of Traditional Networking

Atlancis has been working with traditional networking suppliers of access points and switches—such as Cisco-Meraki HP and Ubiquity—and has faced the well-known issues of vendor lock-in. Another important issue with these vendors includes the expensive yearly maintenance OpEx ranging from training to replacing parts and renewing software licenses after the first year, amounting to an annual 10% of the initial CapEx investment. Those are high costs that put great pressure on the business case for cost-sensitive organizations such as Universities. Replacing one vendor with another is a difficult proposition given the lack of interoperability between vendors and the lack of transferability of training knowledge.

Another issue with traditional OEM software is that it is proprietary and locked to each specific vendor, while OpenWiFi is not only interoperable between hardware vendors but also has an Open API that will enable local talent to develop local applications and boost innovation. Moreover, OpenWiFi offers the ability to host data locally and support edge devices and data centers to reduce latency.

The Promises of OpenWiFi

As an open and disaggregated network solution, TIP’s OpenWiFi confers a number of key benefits over current proprietary solutions that make them particularly suited to this kind of use case, such as deployment and automation-driven operational savings that reduce the total cost of ownership. In addition, enterprise and carrier grade features enable the provision of

high quality, high capacity connectivity at scale, which is critical to delivering the kind of service that can meet the requirements and expectations of today’s student body.

In particular, the NetExperience licensing and support cost are affordable and predictable and result in a lower total cost of ownership. Training is provided on the cloud platform and is hardware independent. Interoperability between access point vendors means that the client mix and use different access point vendors, enjoy more flexibility, and negotiate better deals. Atlancis projects a whopping OpEx reduction of 75% compared to the traditional OEMs. Another important benefit of Open WiFi is the access to a rich ecosystem of suppliers and innovators (including Facebook connectivity).

The NetExperience Cloud Controller

NetExperience provides a full suite of features as part of its cloud controller solution. Features range from Wi-Fi monitoring to optimization and ease of configuration. The company envisions that module—such as QoE engine and automation—will provide huge operational savings to service providers in the long run. As the network grows, the ability to automate troubleshooting without human intervention can make a huge difference in the business case. NetExperience is working with a world class team of AI experts from the University of Ottawa to improve machine learning and for network performance and troubleshooting.

NetExperience Application Layer:

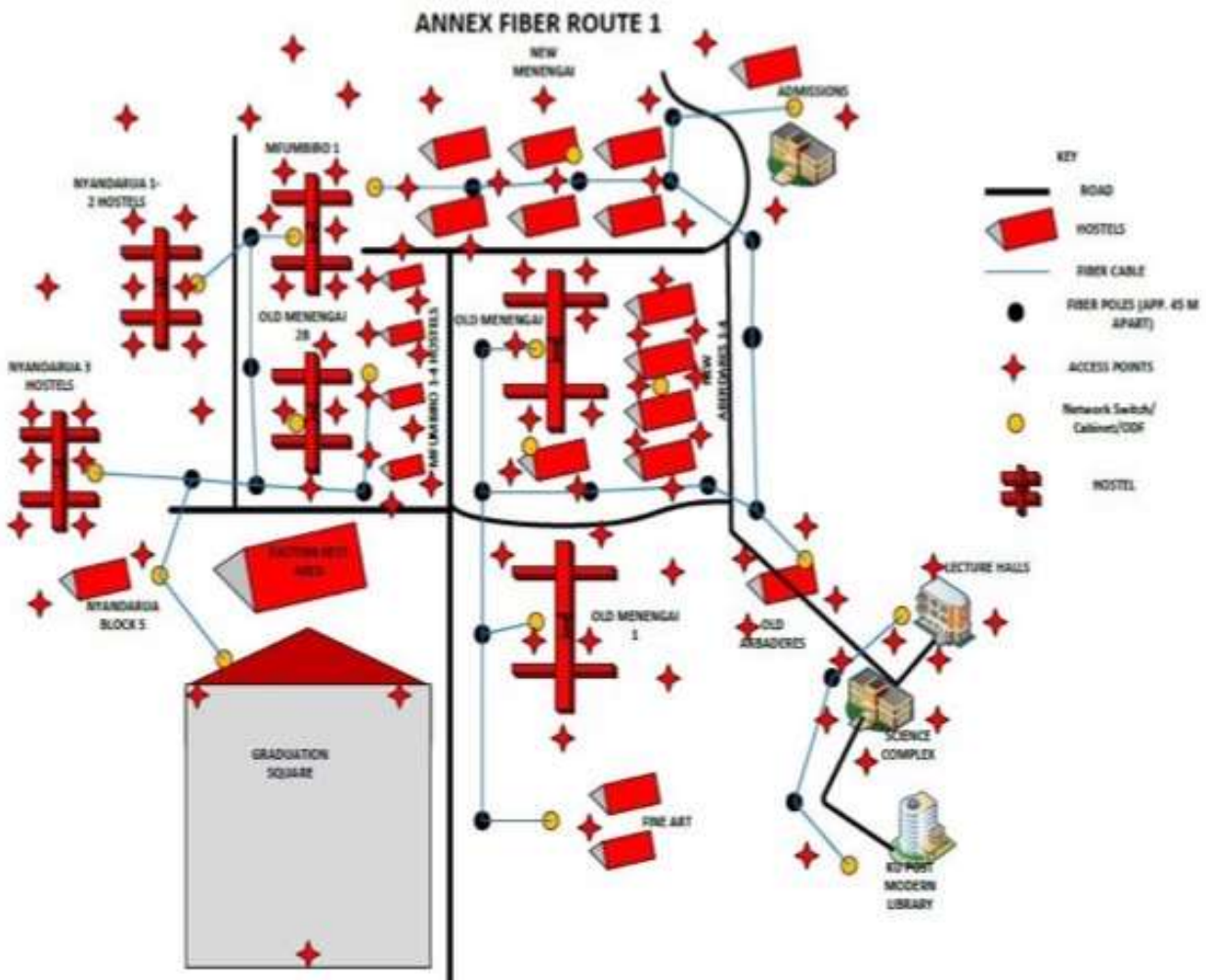


NetExperience’s customer success team provides ongoing support and training to help new clients become familiar with the configuration portal and the main features of the portal with an option to dive into more complex features as required.

The Roadmap

The initial network deployment will start in a new build section of the main Kenyatta campus in Nairobi with a planned 200 outdoor access points from HFCL and CIG-Actiontek. With COVID restrictions, the university would like to ease student density in indoor areas and move some of the learning to outdoor areas. The new build consists of common areas and a number of student residences. Atlancis estimates that the initial network will be up and running sometime in January 2022 at which time network performance and other KPIs will start to be measured against the objectives.

Exhibit: Distribution Map of the Access Points



Source: Atlancis

Conclusion

Open Wi-Fi promises to unlock connectivity in countries and network providers who simply cannot afford the traditional networking solutions and OEMs. The benefits of Open Wi-Fi include not only lower total cost of ownership, but also the opportunity for local talent to develop solutions for the local market on top of a truly open world-class solution supported by a growing ecosystem. In this context, NetExperience provides a solid platform, easy to deploy, rich in features, available as needed, and with clear return on investment. This is just the start of a networking revolution.