

Case Study: Hull City Public WiFi

Hull City public Wifi Utilise RG Nets, Ruckus & Brocade to support 30,000+ users

Purdicom's reseller, Connexin, is the leading provider of Smart cities and the Internet of Things (IoT) in Hull. Having recently won the 'Free City Wi-Fi' contract, the network team at Connexin had the task of installing a number of access points around the city centre and designing a complete, safe and user friendly networking system using Ruckus Wireless, Brocade and RG Nets which would be used by over 30,000 customers.

For this deployment, Connexin needed a central device to manage different customers, with different levels of access; limited by time, data and bandwidth. Security and content control were also key elements to the setup, so dynamic VLANs had to be in operation to separate customers securely on the network, as well as content filtering and security settings to detect and prevent any unwanted activity.

In short, Connexin created a network that was extremely secure and safe for users.

Connexin opted for an rXg cluster, which comprises one cluster controller, three A6 devices (each with two virtual rXg instances to a total of 6), and two 10G capable switches. The rXg allows you to determine how you would like to manage unwanted traffic, simply logging it, sending customers to a splash portal, limiting any further access, or even removing them from the network completely. It also allowed data traffic to reach high speeds and move between devices seamlessly.

The flexibility of the rXg allows it to act as the gateway for the entire wireless deployment, whilst also being securely homed in a data centre. Within the data centre, BGP is then being used to route traffic out to the Internet, with the rXg being fully compatible with this protocol as well as other routing methods.

Will Kebbell, Connexin's head of Network, mentions;

"The rXg provides a fantastic, and highly customizable, platform to build intelligent solutions that go way beyond a basic Wi-Fi network.

With the ability to deliver a multitude of segregated and unrelated services from a single centralized product the rXg is a superb tool for deviling intelligent IT and forms the basis of Connexin's intelligent cities offering in Hull." On the 1st January 2017, the first access point had officially launched to commence Hull's year-long celebration on becoming the UK's 'City of Culture'. Hull was awarded this title in 2013 for their belief in the transformational power of culture. With speeds up to 70Mbps

and unlimited free downloads – 25,000 people connected and used the Public Wi-Fi to welcome in 2017 at the city's firework show.

Furqan Alamgir, Founder & CEO of Connexin mentions;

"We are building this as our flagship smart city network that will support smart IoT applications as well as offering free Wi-Fi to users. We are very excited to be working with Hull City Council who are keen on pushing Hull forward as a technology leading city.

"The network will support Wi-Fi roaming so you can walk throughout the coverage areas without a drop your connection. The system will also remember your device so you won't have to keep logging on, making it easy to use."

