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### **CASE STUDY:**

# Providing shoppers with reliable Wi-Fi

# Challenges

Block had previously deployed the data service for the shopping centres, but it had been in place for some time and needed reviewing. It was thought that some of the concessions had turned the power up too high on their access points, causing bleed out into the main walkways resulting in co-channel interference - hampering shoppers Wi-Fi experience.

Resolving the co-channel interference would both improve the shopping experience and allow the RTLS to work properly, which was integral to the success of the project.

## **SUMMARY**

Block is an IT Managed Services and consultancy organisation that delivers a wide range of business and managed outcomes for retailers.

One of Block's biggest retail clients wanted deeper insight into customer shopping behaviour and traffic hotspots in their shopping centres. They asked Block to conduct a review of their wireless networks, recommend areas for improvement, and implement a Wi-Fi based real-time locating system (RTLS).



#### The Solution

Firstly Block conducted an RF survey using Ekahau Site Survey (ESS) and the Spectrum Analyzer. This let them check for co-channel interference (CCI) and nonwireless interference from things like security transmitters.

With some of the centres covering over two million square feet the surveys would be challenging. However ESS performs hybrid site surveys, which means that one site survey walkthrough is enough to collect it all (active

survey, passive survey, and spectrum survey information), so Block managed to survey each centre in under two days.

Ekahau's map-based visualisation combines spectrum and Wi-Fi data into one comprehensive, easy-to-read screen. So Block could quickly analyse the data and report back where issues with concessions were occurring, so that adjustments could be made to their access point power settings.

Block also made some WLAN controller configuration changes and introduced band steering to move dual-band clients off the congested 2.4 GHz spectrum onto 5 GHz.

After the changes had been implemented Block went back to site to conduct a validation survey, and their client testing highlighted significant improvements, allowing the Wi-Fi location tracking system to proceed as planned.

#### **About Block:**

Block is an IT innovation business, offering expert consultancy, business transformation and managed services that empower clients to aspire and succeed. Block is combining deep vertical market expertise with proven technical capability, to work in partnership with their clients to deliver impactful, measurable and sustainable business outcomes ensuring investment priorities are effectively aligned to strategic objectives. Their solutions and services help clients across enterprise, commercial and public sectors to increase productivity, accelerate growth and deliver outstanding user experiences.

www.block.co.uk



**Ekahau's intuitive functionality has** helped our team work quickly and efficiently with higher levels of accuracy and intelligence.

We are particularly pleased with the high quality of the heatmaps, which provide great insight and help us to achieve a high-quality output for our clients."

> Matthew Starling Enterprise Networks Wireless Consultant