

## **/ CASE STUDY: WIRELESS OFFICE GLOBAL ROLL OUT**

**Pinacl-GDA complete high end WiFi surveys for Dimension Data across 25 countries**



### **/ THE RESULT:**

Pinacl-GDA completed the wireless roll out for a British high street bank that were facing key technology challenges globally. Their Campus' and Wireless' infrastructure was pivotal in providing a stable, highly available, scalable and flexible platform to underpin the technology group in the provision and support of IT services to the business in all regions of the Globe.

This project had the objective of moving the bank from End User Technology (EUT) that is dependent on a wired solution to EUT that is dependent upon a wireless solution. This program was referred to as WCO (Wireless Centric Office) and sees WiFi promoted to a Tier 1 service within the bank.

The WCO program was to roll out new network infrastructure to a large portion of its global site.

### **/ THE PROJECT:**

Required to support this initiative was a WiFi and Cabling partner which had the global coverage to deliver.

The WCO program is a new access network which is being rolled out from the beginning of 2016 to the main campus sites across the globe. The program is expected to roll out a new wired and wireless network to between 100 and 140 of the larger campus sites globally.

The WCO project objective was to reduce the reliance on wired infrastructure in campus sites and to migrate users to the wireless solution and reduce the required network switch port count.

The delivery included creating a new site alongside the existing and then the migration of users across to the new infrastructure. Migrating

users required some changes in end user technology to use a heavily wireless oriented connection approach. Once users were migrated across the old wireless and wired access layer was decommissioned.

This project included an estate of approximately 10k APs (Access Points) and 250 WLCs (Wireless LAN Controllers).

### **/ KEY BENEFITS:**

#### **> ACCESS TO PINACL-GDA**

The 'Pinacl Global Delivery Alliance' (PGDA) is an association of accredited experienced organisations which has been formed for mutual benefit providing a single route to market for all aspects of IT delivery on a global basis for our customers.

#### **> CENTRALISED PROJECT MANAGEMENT**

Project Managing a global deployment is not without its challenges. Throughout this engagement Pinacl encountered several challenges which we successfully overcame to ensure delivery for the end client.

Our ability to work in an agile flexible fashion allowed our project management office to continue to deliver other contingent elements of the projects ensuring the end timescale was met.



## / THE SOLUTION:

Each survey involved a site visit to test for RF interference and to identify optimum installation locations for access points. This required analysis of building floor plans, inspection of the facility, and use of site survey tools. The RF WiFi survey involved the engineer/s visiting each floor to conduct the following work:

**Passive Survey** – During a passive survey, the site survey application passively listened to WLAN traffic to detect active access points, measuring signal strength and noise levels. The wireless adapter being used for the surveys were not associated to any WLANs. For system design purposes, one or more temporary access points were deployed to identify and qualify access point locations.

**Inter Floor Propagation** – As part of the survey we needed to gain an understanding of how 802.11 signals propagate through the floors of the facility where the deployment of the wireless network was taking place. Every building is different, so it's a good idea to do some testing and determine how much the floors actually attenuate radio signals. Keep in mind that 2.4GHz and 5GHz signals propagate differently through the same materials, so we performed testing with the frequencies we planned to deploy.

**Spectrum Analysis** – For the survey spectrum analysis was needed to negate high RF interference from non-802.11 sources, such as microwave ovens or cordless phones.

**AP on a Stick (APOS)** - During the predictive survey, a model of the RF environment was created using simulation tools. It is essential that the correct information on the environment is entered into the RF modelling tool, including location and RF characteristics of barriers like walls or large objects. Therefore, temporary access points or signal sources were used to gather information on propagation in the environment. Virtual access points were then placed on the floor plan to estimate expected coverage and adjust their number and location.

The value of a predictive survey as a design tool versus a passive survey done with only a few

access point is that modelled interference can be taken into account in the design. Pictures were taken to determine exact AP locations otherwise the performance of the new network will be at risk due to incorrect AP placements.

## / CLIENT TESTIMONIALS:

"The strategic global relationship is managed extremely well and Pinacl-GDA are very pro active and their expert knowledge in the industry is clearly visible. We are looking forward to continuing our relationship for years to come.

What makes the partnership effective, is that Pinacl-GDA are able to support the bank in various global resourcing and service delivery areas. Essentially Pinacl-GDA have become the 'go to partner' and take-away the pain and challenges of project delivery, hence their status as a preferred supplier. "

HEAD OF GLOBAL IT PROJECTS,  
MULTI NATIONAL BANK

"We are delighted to have worked so closely with this multi national bank on this project delivering high end WiFi services across 100 global sites across 25 countries.

We successfully leveraged our Global Delivery Alliance (Pinacl-GDA) to deliver high quality services on time and to budget."

LIAM WYNNE, MANAGING DIRECTOR,  
PINACL-GDA