

## WIRELESS SURVEYS FOR AMERICAN RETAILER ACROSS 50+ LOCATIONS IN 6 MONTHS



### The Challenge

The retail industry faces unique challenges when designing and deploying WiFi networks. Networks must accommodate a large quantity of shoppers' user devices while also maintaining a high level of performance, security and control for these devices. Additionally, different environments and use cases must be considered within a retail environment, such as general WiFi access in public areas, network connectivity for back offices, and a wide range of IoT devices and applications dispersed throughout the facility.

### The Client

A Fortune 500 chain of domestic merchandise retail stores operating across North America wanted to upgrade their wireless capabilities for staff and shoppers. They targeted 50+ retail locations across the US, each with its own set of connectivity challenges.

### The Solution

The customer partnered with CTRL+V, a market leader in the full lifecycle of wireless services, to ensure that fast, reliable WiFi connectivity would be available throughout all areas of the 50+ retail locations. As the first step toward meeting this expectation, CTRL+V's expert wireless technicians conducted a wireless site survey in each location to understand how the variables of the environment – such as wall materials and floorplan layout – affected the RF signal propagation and impacted performance. The site survey utilized industry-standard tools to measure and report on the existing WLAN performance. A heatmap image of the legacy WiFi deployment showing signal strength levels (RSSI), co-channel interference, and signal-to-noise ratio was provided to the customer to help them gain a base level understanding of WiFi activity and performance, and aid in decision-making.

### The Results:

Over the course of six months, CTRL+V completed the wireless site surveys at each of the 50+ retail locations across the US. The completed surveys allowed CTRL+V's wireless experts to create a simulation of expected wireless performance based on existing floorplans, the facility's environmental considerations, and measured wireless statistics captured on-site. This predictive assessment and associated reports were then utilized to create and implement a remediation plan to fix/upgrade the issues discovered during the survey phase. At the project's successful completion, the retailer delivered a reliable and seamless wireless connection to customers and staff, despite complex store layouts and high user densities.