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Philip Secombe
Cardinal | New Zealand

Challenge

To upgrade the overall network and improve wireless performance across multiple large locations, while adding support for remote network management

Solution

TRENDnet **wireless access points** and **managed PoE+ switches** were installed throughout multiple locations, and the TRENDnet Hive **cloud network manager** was utilized for remote monitoring and management

TPE-30284
TEW-826DAP
TRENDnet Hive

TRENDnet Upgrades Cardinal’s WiFi Network with Remote Management Support

In an era where seamless connectivity and efficient management are paramount, Cardinal turned to TRENDnet to embark on a mission to elevate its network infrastructure across multiple locations throughout the country. Through strategic planning, meticulous implementation, and the adoption of cutting-edge technology, Cardinal successfully upgraded its network, optimizing performance, enhancing operational efficiency, and laying the foundation for future growth.

The Challenge

Cardinal is a nationwide Fast Moving Consumer Goods (FMCG) and Retail logistics provider based out of New Zealand, with a team of more than 500 staff across multiple locations throughout the country. For more than 30 years, Cardinal has delivered customers’ goods to stores using cutting-edge technology, innovative infrastructure, and a focus on people and processes, to provide successful logistics solutions on behalf of major multinational and kiwi businesses. The company is an industry leader in providing end-to-end third-party logistics, including container cartage and devanning; specialized warehousing; and nationwide distribution.



With Cardinal's Perfect Pallet product requiring live-scale validation and hands-free scanning, along with Cardinal building a 115,000 ASRS pallet warehouse in Auckland with a robotic 62,000 goods-to-person carton pick system, it was time to upgrade the network across its locations throughout New Zealand. The first challenge was finding a solution that could provide ample wireless coverage inside large buildings and warehouses for both picking equipment and office devices with little to no wireless dead zones. Another challenge was identifying a way for the Cardinal team to proactively monitor and manage the networks from any location.

The Solution

Before moving forward with the install, a site survey was conducted at each location to determine which products would be best utilized, and it also helped to identify where and how much equipment would be needed. To simplify and to create an overall seamless network design, the same model switches and the same model wireless access points were installed at each location.

TRENDnet's 28-Port Gigabit Web Smart PoE+ Switch with 10G SFP+ Slots (TPE-30284) was chosen primarily for 10G SFP+ uplink applications, but also because it provided an ample port count with room for future growth. They were installed into warehouse comms racks, and provided a cost-effective way to optimize warehouse connectivity.

Wireless APs that supported a secondary 5GHz channel were required for this install due to how the company sets up its SSIDs. TRENDnet's AC2200 Tri-Band PoE+ Indoor Wireless Access Points (TEW-826DAP) was deployed as it could deliver this feature, while also providing a way to minimize network congestion using both 2.4GHz and 5GHz channels.

The TPE-30284 managed PoE+ switches not only connect wireless access points (AP) back to the main network, but the switches also power each AP. Power over Ethernet (PoE) technology allows users to deliver both power and data over a single cable. This is particularly helpful when a power source is not readily available. The switch's management and monitoring features, such as VLANs and QoS, help to effectively control data traffic.

Connected to the TPE-30284 managed PoE+ switches are multiple TEW-826DAP PoE+ access points. The site survey determined how many access points would provide ample coverage in the areas that required wireless connectivity, and where the access points needed to be placed for the best performance.

Both the TPE-30284 web smart PoE+ switch and the TEW-826DAP PoE+ access point offer remote management capabilities through TRENDnet Hive, a cloud network manager. With TRENDnet Hive, Cable Systems (cable/tech installer), and Cardinal are now able to manage and monitor each location's network from anywhere in the world using an internet connection.

The Result

"Choosing TRENDnet was a no-brainer for us, because we've been using their equipment for years. In our tests against competitors, we found that TRENDnet delivered the same or better in performance, but were much more cost-efficient. TRENDnet Hive helped to simplify the large installations, and also made them easier to maintain."

Ryan Grant

Cable Systems (installer)

"Our network speeds and overall network visibility are better than they've ever been. There's full coverage across all facilities, allowing us to move freely in our work. Operations, including picking and replenishment, were also drastically improved; and network management is easy, with clear visibility of the status of the switches and APs. As Cardinal continues to grow and rely on more technology, such as ASRS and robotic goods-to-person carton pick systems, TRENDnet's networking solutions will continue to be a key pillar of Cardinal providing an industry-leading logistics service to its customers across New Zealand."

Philip Secombe

Cardinal

