



Go Wireless NZ



Cambium Networks™



ecs

Engineering Computer Services (ECS)

We Are Exclusive Distributors Of World Leading Industrial Electrical, Automation & Networking Products In New Zealand.

Problem:

ECS wanted to improve their warehouse efficiency by enabling access to their systems directly to the picking and packing personnel throughout their facility. There were challenges with WiFi access due to the large size of the premises, and the amount of steel racking and concrete structure of the building.

Solution:

A robust, easy and efficient to use system that allows for powerful centralised management, easy processing, as well as clear remote observation of the day to day warehouse tasks spanning a 120m warehouse. Integration with Windows Radius Servers is required.

Requirements:

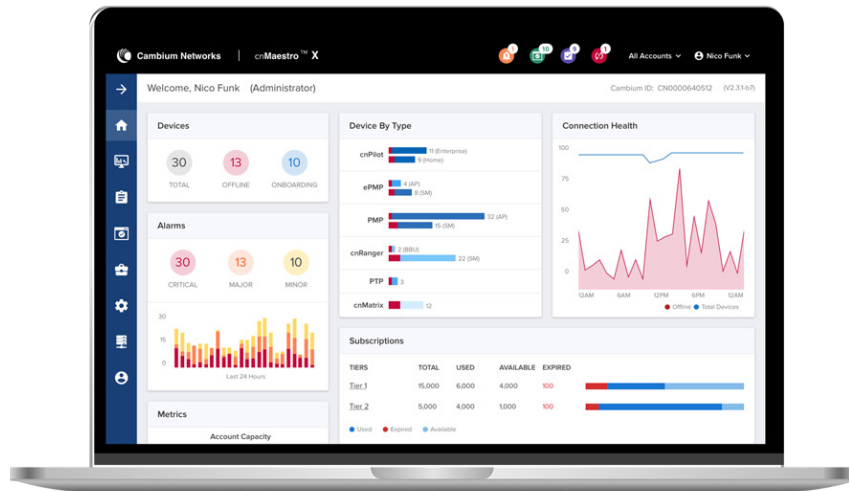
- [4x e410 Indoor Access Points](#)
- [4x e600 Indoor Access Points](#)
- [3x e430H Wall Plate Access Points](#)
- [2x EX2010-P Ethernet Switches](#)

Results:

Solid and predictable network performance improving communication and efficiencies. A clear observation of warehouse day to day tasks increases quality control and workplace safety. The ability to provide hotspots was an added benefit for hosting technical training workshops.

ECS Choose Cambium To Pick, Pack And Perform.

WAREHOUSE SOLUTION



“We have a first-class network, with 100% coverage across our entire 120m warehouse; every corner between shelving has full coverage. We were very impressed that Cambium Networks offer a cloud-based or on-premise controller at no extra cost.”

Shayne Harris - Automation & IT Network Engineer for **ECS**

Reasons for the Deployment

The existing legacy system used by ECS was performing poorly with no client handover (the access points did not talk to one another well). Management (centralization) was also cumbersome and very difficult to configure efficiently.

When it came time to consider upgrades at ECS, solid, consistent and predictable performance was paramount. Prior knowledge of Cambium Networks' performance, primarily driven by our customer sales of Cambium, was top of mind. "We noticed our customers were delighted with the build quality, IP ratings, support, price point and value for money of Cambium Networks' systems," explains Shayne Harris (Shayne), Automation & IT Network Engineer for ECS. "We were very impressed that Cambium offers a cloud-based or on-premise controller at no extra cost."



cnPilot e501S Outdoor Sector Wi-Fi

IP67, 802.11ac, 90-1200, Integrated Sector Antenna Wireless Access Point

Inside a warehouse, reliable connectivity is essential for stock picking and packing systems such as; stocktaking, barcode reading, label printing etc. Along with improving stock management, increasing communication and visibility warehouse wide was also being planned. Using the new network, a VoIP solution capable of covering mobile devices across a 120m warehouse would allow for quick and easy communication between staff.

ECS further identified a need for remote managed security cameras to gain insight into quality control while monitoring and improving workplace safety. When considering these solutions, integration to ECS Windows Radius servers was considered a requirement.

Installation process and results

The Wireless Network solution was developed in-house with scale drawings of our warehouse. Sector access point angles were extended on the drawings to predict coverage and penetration of our shelving systems.

Go Wireless NZ assisted with product choice, based on task, cost and scalability as well as advised on installation best practices.

Security cameras were easily implemented into the solution by utilising Cambium's PoE pass-through port on all our Warehouse Access Points, negating the need for additional cabling, which had a huge impact on saving time and money.

The installation described as straightforward took Shayne a week to complete (including cabling). Shayne has sole responsibility for managing the new system using Cambium Networks Cloud-Based cnMaestro software platform.

- Using a forklift and cage, Shayne ran all Cat6A cables to locations identified on ECS site drawings.
- Shayne terminated all cables to two separate Warehouse sub-cabinets and patched everything to our premise enterprise Layer 3 PoE switches.
- Access Points are all eight meters from the floor, with a five-degree downward tilt penetrating to the back wall.
- Using the PoE pass-through ports, Shayne cabled the 802.3af/at PoE compliant cameras (cameras are on a separate VLAN from the WiFi – this is configured on the Cambium).
- Shayne configured cnMaestro.

"We are thrilled with our choice to use Cambium Networks. Everything went to plan," claims Shayne. "We have a first-class network, with 100% coverage across our entire 120m warehouse; every corner between shelving has full coverage. Furthermore, VoIP calls are robust with no cut-out, even with a user walking the full distance of our warehouse."

Cambium Networks offer a Standard 3-year warranty on all IP rated outdoor gear and a 5-year warranty on the indoor cnPilot "E" series, which was an essential factor to ECS. Apart from using Go Wireless NZ for occasional support, ECS can feel at ease with Cambium Networks 24/7 support option.

What business problems are you solving with the product and what benefits have you realised?

"A guest captive portal feature of Cambium Networks Management software was a bonus, especially when we host technical training seminars," concludes Shayne.

Recommendations for others considering the product:

“For companies looking for a similar network solution, make sure you get accurate scale drawings of the building,” suggests Shayne. “Be sure it gets plenty of height so that you are achieving maximum coverage. Use sector-based AP’s to minimise stray reflections and concentrate all power to desired locations. Utilise 5G steering where possible.”

“Go Wireless NZ are our preferred supplier for all WiFi and cellular products and are a reliable valued partner,” adds Shayne. “I always bounce any concerns or ideas with them and discuss any feasibility concerns.”

ABOUT ECS

Founded in 1983, ECS is a New Zealand family owned business involving two generations of family. We began by designing and manufacturing automated machinery for a range of industries including dairy production machinery and production machinery for the construction industry. Our relationships with our suppliers such as LAPP in Germany was initiated through our own demand for high quality products for our production.

Over the last 30 years ECS has evolved from a manufacturing company to a market leading supplier of Electrical and Automation products. We are now the exclusive distributors in New Zealand for world leading manufacturers such as LAPP, Wieland Electric, MOXA Networking and LS Industrial Products.

At ECS we strive to offer the best customer service in the industry. When you phone us, you will go straight through to our sales team who are made up of trained electricians and automation engineers. We are not just order takers; we are able to guide you through our range so you can select the right product to suit your requirements.

