

# Seamless Transition to Complete Wi-Fi Coverage



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- RIK CROWDER,  
WAREHOUSE  
MANAGER, ANNEX

## Overview

### ANNEX IS A DRY FOOD AND CONTRACT PACKING

specialist partnering with some of Australia’s leading food, FMCG, pharmaceutical and retail companies. ANNEX provides innovative solutions for food systems, including single serve portion control, sourcing and product development capabilities – complementing their extensive experience in contract packing and assembly.

Operating from a 20,000 square meter facility in Clayton South, Victoria, Annex offers:

- Portion control food packing (flexible and carton)
- Product development and ingredient sourcing
- Extensive capability in contract packing
- General assembly and packing
- Quality assurance - including HACCP and BRC accreditation
- 3PL capability including temperature controlled storage
- Outstanding service

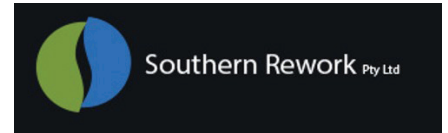
The facility uses state-of-the-art automation, relying heavily on communications infrastructure. There are an average of 40-60 mobile users utilizing the Wi-Fi network, with applications supporting 24/7 connectivity of mobile computers, laptops/PCs, and Automatic Guided Vehicles (AGV). The entire facility requires complete coverage, with the capacity to support the needs of all personnel and connected equipment. Any gaps reduce efficiency and cost time and money.

“We were experiencing slow network speeds and dropouts around our facility with our existing Wi-Fi network while using mobile devices,” said Rik Crowder, Warehouse Manager, Annex. “With the new deployment of our Automatic Guided Vehicles we needed to consider our network upgrade options to rectify any issues with the Wi-Fi that would impact the AGV’s performance and reliability.”



Annex reached out to Southern Rework. Formed in 1995 and based in Melbourne, Southern Rework specializes in Point of Sale, scanning RF technology, hardware installation, and maintenance. Focused on customer satisfaction, Southern Rework has expanded service offerings to include:

- Warehousing
- Data/communications cabling
- Software installation
- Project management



Southern Rework currently deals with a diverse number of organizations both large and small, locally and across Australia. These include retail and technology organizations throughout all industries.

## Solution

### SOUTHERN REWORK PROPOSED REPLACING THEIR EXISTING

Wi-Fi network with a new cnPilot indoor and outdoor connectivity solution. In addition to the capacity and coverage increases, cnPilot solutions work with the cnMaestro management system from Cambium Networks.

“Annex could not afford down time, and they needed clear and un-interrupted communication between in-line PLC and AGV while rectifying the coverage and speed issues they were experiencing,” said Evan Boyack, Wireless Architect, Southern Rework.

Annex also had budgetary parameters to consider. “The expense of rectifying the existing network was outweighed by the cost and benefit of moving over to the Cambium cnPilot & cnMaestro platforms,” said Crowder. “What we needed to do was prove the technology’s potential by measuring the results.”



### WI-FI ACCESS

cnPilot Indoor Enterprise Wi-Fi Access Point Portfolio					
Model	Standard	Frequency	SSID	Max Users	Technology
e600	802.11ac wave 2	2.4 & 5 GHz	16	512	4x4 MU-MIMO
e410	802.11ac wave 2	2.4 & 5 GHz	16	256	2x2 MU-MIMO
e400	802.11ac	2.4 & 5 GHz	16	256	2x2 MIMO

cnPilot Outdoor Enterprise Wi-Fi Access Point Portfolio					
Model	Standard	Frequency	SSID	Max Users	Coverage
e500	802.11ac	2.4 & 5 GHz	16	256	360° omni
e501S	802.11ac	2.4 & 5 GHz	16	256	120° sector
e502S	802.11ac	2.4 & 5 GHz	16	256	30° sector



## Results

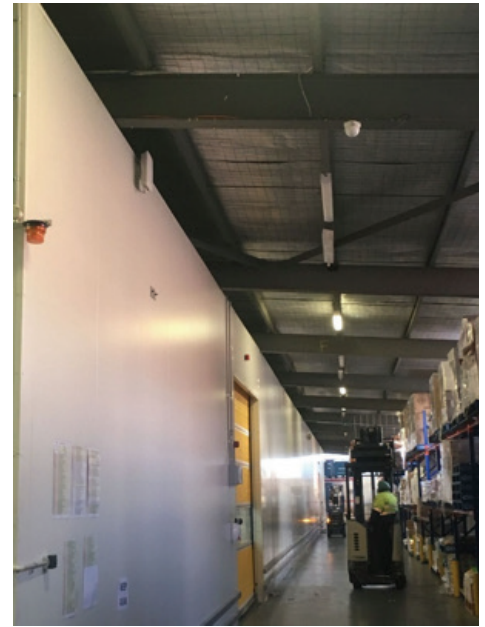
### 22 CAMBIUM CNPILOT E500 OUTDOOR ACCESS POINTS WERE

deployed across two sites as a direct replacement to the legacy Wi-Fi network.

“The installation time was done over two days with negligible impact to the production network,” said Crowder. “All hardware was pre-staged and tested with our legacy Wi-Fi settings as well as the new WLANs to allow for a seamless migration. We now have RF Scanners connected to our WMS, the AGVs are connected to in-line PLC’s, and all PC’s throughout the building are connected to the server. In addition, there are now more options for us to leverage on the new Wi-Fi deployment.”

Equally important, the transition was completed without interrupting operations. “We had zero loss of transactional data that results in inefficiencies (no time loss investigating and searching for stock). We also had zero drop outs, which improves user satisfaction,” said Crowder.

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### Why Annex chose Cambium Networks technology:

- **Reliability and Speed** - Business needs rely on a consistent, high-capacity network.
- **Coverage** - Operations demand complete, facility-wide coverage with no dead zones.
- **Ease of Management and Support** - The system needs to provision equipment to support rapid installation and be manageable from a remote location.