Lineage Logistics Case Study

**From subzero to hero:
taking the Southern Hemisphere's
largest cold-chain warehouse to the cloud**

Lineage

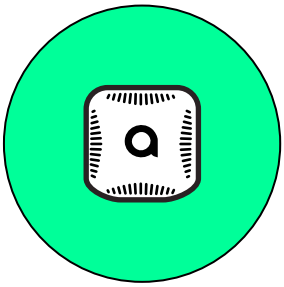
SIDEBAR: AT A GLANCE

Summary:
Lineage Logistics enlisted Affinity Blue and Aruba to streamline Wi-Fi and wired network management for its flagship cold storage facility, bringing additional security and stability to its global supply chains in the process.



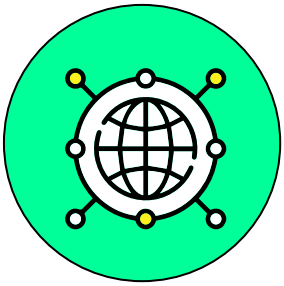
The situation:

Ageing wireless infrastructure in a complex, mission-critical, temperature-controlled warehouse environment.



The solution:

Aruba Central and 251 Aruba access points, supported by comprehensive network mapping and cutover strategy to fit predetermined downtime windows.



The results:

Proactive issues management, major time savings, and much easier wireless expansion for new sites.

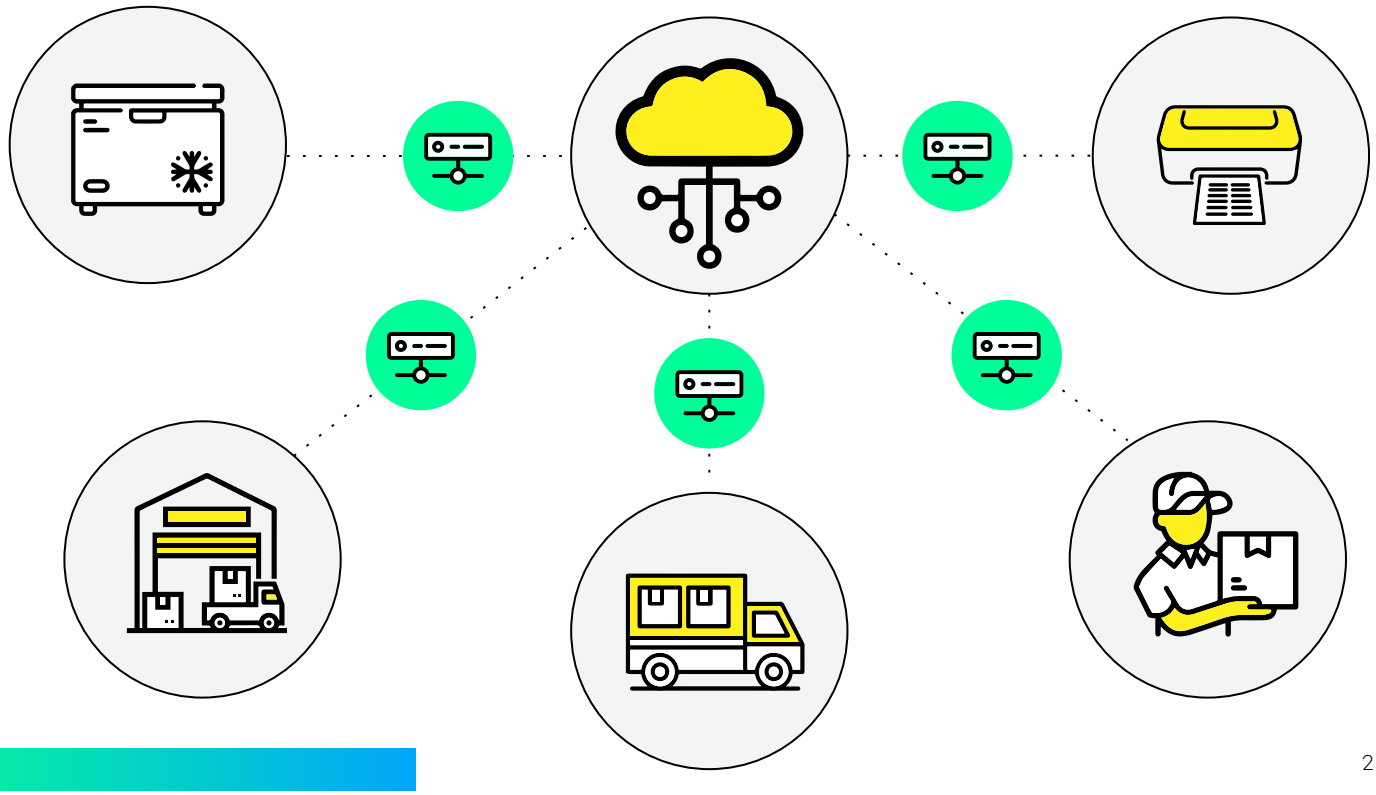
THE SITUATION

Lineage, the largest dynamic temperature-controlled warehousing and logistics company in the world, is responsible for literally keeping food on people's tables. Any operational failure in the firm's warehouses – many of which must maintain a constant temperature at or just above freezing-point – can disrupt global food supply chains, generate significant amounts of spoilage, and even endanger the safety of onsite staff. And with many of Lineage's automated systems running on Wi-Fi connectivity, the health of its wireless networks matters more to safe and reliable food storage than ever.

"Lineage's business impacts the lives of millions worldwide," said Simon Hayward, Managing Director of Affinity Blue. "Working on their infrastructure is both a huge privilege and responsibility."

Lineage's flagship Hume Road "cold-chain" warehouse is the largest temperature-controlled facility of its kind in the Southern Hemisphere. The facility's Wi-Fi network relied on more than 200 Aruba access points – all of which had served Lineage well for many years but were fast approaching their use-by date. Lineage's IT team also needed a more efficient way of managing its huge fleet of access points than configuring them individually via console.

"Everything from printers to conveyor belts and automated forklifts runs on the warehouse's Wi-Fi network," Hayward said. "Lineage knew they needed to take action sooner rather than later or face operating risks that would soon prove unacceptable."



THE SOLUTION

Lineage called on Affinity Blue to freshen up the Hume Road facility's network in two steps: replacing the ageing access points with brand-new Aruba kit; and consolidating management of all new access points on Aruba Central. Affinity Blue had already completed similar network overhauls for other Lineage warehouses, but never at the scale or complexity that the Hume Road site presented.

"The temperature-controlled conditions, extremely high uptime requirements, and sheer volume of access points involved, made for a pretty daunting situation," said Joshua Te Momo, Junior Network Engineer at Affinity Blue.

Affinity Blue first developed a comprehensive map of Hume Road's network infrastructure, documenting both physical hardware definitions (like access point names) and interface information from VLANs operating throughout the warehouse. To make the most of Lineage's limited downtime windows, the Affinity Blue team paid particular attention to ensuring all configurations were tested and double-checked before each stage of the refresh, The team also worked closely with Aruba to ensure sufficient hardware availability well ahead of cutover – no mean feat when trying to procure 251 access points during industry-wide device shortages.

"Aruba went above and beyond in finding us APs during a period of constant supply chain disruption," Hayward said. "Having that trusted relationship with their team really helped in not just getting the APs we needed, but finding acceptable alternatives and substitutes when the hardware simply wasn't available in time."

While bringing Lineage's new access point fleet onto Aruba Central, Affinity Blue also developed detailed floor plans for each location at the Hume Road site. With those floor plans, Lineage's IT team could use Aruba Central to get a real-time picture of how client devices were connecting to different access points in every part of the warehouse – crucial intelligence when optimising and securing the network.

"If all the clients at a certain freezer are connecting to a faraway AP, it could be that specific AP is drawing more power than it should be and drowning out nearer ones," explained Te Momo. "Adding the floor plans to Aruba Central allows Lineage to identify and diagnose potential issues like this on a regular basis."

"The weekly project update meetings to proactively raise and address issues, and the team's ability to translate complex technical issues to layman's language for a business audience, greatly enhanced the cohesiveness of our working relationship on this project," said Thomas Clayton, Infrastructure Engineer, Lineage Logistics Australia.

"Affinity Blue was able to solve new or complex problems on the fly, when dealing with old infrastructure that sometimes wasn't well-maintained or documented – which helped ensure we had no disasters after a weekend of changes."

THE RESULTS

The Hume Road network refresh took just under a year to complete, with more than 200 devices now typically connecting to the warehouse network at any given time. With minimal performance issues on both switches and access points, the new network has already proven a boon to Lineage's onsite staff.

"The cloud centric management tools Affinity Blue use to manage our extensive Aruba network, not just at Hume Road but other sites Australia-wide and in New Zealand, gives us a great dashboard to monitor the health of our network," said Clayton. "It's really helped us become more proactive in addressing issues as and when they might occur."

Monitoring and troubleshooting access points now takes significantly less time thanks to Aruba Central's one-cloud approach, greatly simplifying the steps that Lineage's IT team takes to update and alter configurations. Aruba Central, coupled with Affinity Blue's approach to VLAN configuration, has also allowed Lineage to adopt a "plug and play" model for adding new access points and devices, giving it the flexibility to further grow its digital footprint.

"It takes great technology and even better implementation partners to deliver solutions that adequately handle the complexities of cold storage warehousing," said Venu Metla, South Pacific Mid-market Leader, HPE Aruba Networking. "Aruba technology coupled with one of the industry's best implementation partners in Affinity Blue meant that we were able to jointly deliver a solution that delighted the customer."

"The team at Affinity Blue played a pivotal role in successfully rolling out this Wi-Fi project successfully, on budget and to a tight timeline across a range of contractors," said Clayton. "They don't just talk the talk, they walk the talk in delivering high-quality reliable networking solutions that aligns with our businesses' needs – both now and into the future."



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