

CASE STUDY

HOW A GLOBAL LIFE SCIENCES MANUFACTURER IMPROVED WAREHOUSE WI-FI RELIABILITY IN A CHANGING PLANT ENVIRONMENT

A global life sciences manufacturer's warehouse Wi-Fi had become unreliable as the site evolved through expansion and infrastructure changes. Axsera diagnosed the root cause, validated a new design in the field, and helped the network team restore reliable connectivity to the warehouse.

OVERVIEW

A global life sciences manufacturer operates a complex facility with approximately 600 users across office, production, warehouse, and support areas.

As the site evolved through expansion and infrastructure changes, Wi-Fi reliability became increasingly important to daily operations. The most visible issue appeared in the warehouse, where mobile scanning devices were losing connection during use.

For the IT team, the question was not whether the site needed “more Wi-Fi.” The team needed to understand what was actually causing the issue, and they brought in Axsera to find out.

ABOUT THE CLIENT

The client is a global life sciences manufacturer with production, warehouse, and support environments where reliable connectivity matters to daily operations.

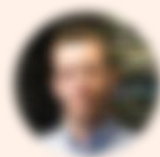
ABOUT AXSERA

Axsera is a wireless and network infrastructure services firm helping complex sites assess live environments, identify root causes, and improve Wi-Fi reliability.

TESTIMONIAL

“Axsera helped us get to the root of the issue. Their survey and recommendations gave us a **clearer picture** of what was happening in the warehouse and **what needed to change**.

After the work was completed, we saw a big improvement, specially in reducing dead zones and making device movement through the space **more reliable**.”



**Senior IT Systems &
Network Administrator**

Global Life Sciences Manufacturer

THE ROOT CAUSE

The investigation revealed that the warehouse layout had changed. Pallet racking had been added and existing racking repositioned, but the access points remained in their original locations.

The wireless infrastructure no longer reflected how the space was actually used, and the new configurations created RF blind spots in active work areas, which were directly responsible for the reported scanner dropouts.

This is a common but easy-to-miss failure mode in warehouse environments. The wireless design had not failed. The environment had simply evolved around it.

AXSERA'S APPROACH

Axsera worked through the assessment in phases, validating the design at each step before committing to changes on-site.

1

Passive Survey

Established a baseline of the existing RF environment.

2

Predictive Design

Mapped new AP placement against the updated racking and mobile workflows.

3

AP-on-a-stick Validation

Tested proposed AP locations before cabling or installation.

4

AP Relocation

Carried out the full move, correcting co-channel interference identified.

5

Validation Survey

Confirmed coverage and roaming performance after installation.

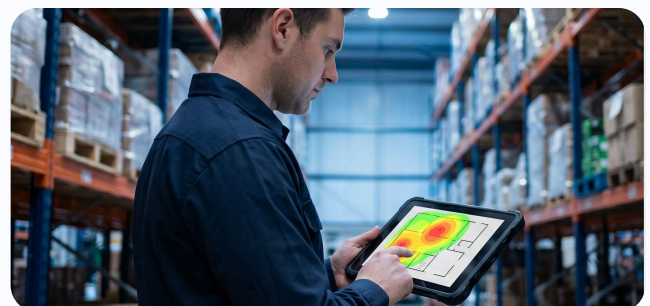
THE CHALLENGE

The issues were most evident in the warehouse, where mobile scanning devices were losing connection as users moved through the space. The root cause was not immediately obvious.

Because the environment was operationally complex, the client needed a proper site survey rather than relying on assumptions.

! The issue could have been coming from several areas:

- > insufficient coverage
- > signal quality issues
- > AP roaming behavior
- > AP authentication behavior
- > legacy infrastructure
- > changes in the physical layout
- > RF-impacting conditions
- > device or configuration behavior



RESULTS

Based on Axsera's findings, the client moved forward with a full AP relocation aligned to the current warehouse layout. Axsera identified and corrected co-channel interference in adjacent areas, and provided the network team with a channel plan and transmit power recommendations to support roaming performance and connectivity stability going forward.



Fewer Dead Zone Issues

Warehouse users no longer encountered the same dead zones moving through the space. Mobile devices maintained connectivity more reliably during warehouse workflows, helping users continue scanning work with fewer interruptions.



Improved Device Movement

Rather than forcing devices to reauthenticate repeatedly as users moved through the warehouse, the network could better support continuous movement through the facility.

BIGGEST WIN

For the client, the result was not just a better Wi-Fi report. It was a clearer path to a more reliable wireless environment for the people and devices that depended on it every day.

For the IT team, that meant fewer assumptions, less back-and-forth, and a more confident path to improving warehouse connectivity.

CONCLUSION

In complex plant and warehouse environments, Wi-Fi problems often sit between teams, vendors, devices, and infrastructure. The visible symptom is easy to spot: a scanner drops, a user loses connection, a dead zone gets reported. But the real cause is rarely that simple.

In this case, the cause was an evolving physical environment. New and repositioned racking had outpaced the wireless infrastructure designed to serve it. Through a staged on-site assessment, design validation, and practical recommendations, Axsera helped the client move beyond assumptions and create a Wi-Fi environment that reflects how the warehouse actually operates.

STOP GUESSING. GET THE NETWORK FIXED.

Schedule your Site Survey today.

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