



## PREDICTIVE WIRELESS SURVEY

Professional Wi-Fi design before deployment



### DESIGNING WIRELESS NETWORKS BEFORE INSTALLATION

Deploying Wi-Fi without proper planning often results in coverage gaps, interference, poor roaming performance and unnecessary hardware costs. Resolving these issues after installation may require redesign, additional equipment and repeat site visits.

A Predictive Wireless Survey models the wireless environment before deployment, allowing the network to be designed correctly from the start.

This enables resellers and IT teams to deploy networks with confidence, knowing the design has been validated in advance.



### WHAT A PREDICTIVE WIRELESS SURVEY DELIVERS






- Planned access point placement before installation
- Network design based on user density and application requirements
- Improved coverage consistency and reduced interference
- Accurate estimation of hardware requirements
- Future-ready design supporting modern Wi-Fi standards



## HOW PREDICTIVE WIRELESS SURVEYS IMPROVE WIRELESS DEPLOYMENTS

Challenge	Predictive Survey Benefit
Coverage Gaps	Designs AP placement to eliminate dead zones before deployment
Capacity Planning	Ensures the network supports expected user density and applications
Interference	Predicts and minimises co-channel and adjacent-channel interference
Future growth	Designs networks ready for Wi-Fi 6E, Wi-Fi 7 and expansion
Cost Efficiency	Prevents unnecessary hardware and redesign work

## OUR PREDICTIVE WIRELESS SURVEY PROCESS

-  **Understand Requirements**  
Review building floor plans and define project goals, user density, device types and application requirements.
-  **3D Environment Modelling**  
Create a digital model of the building including walls, materials and obstacles affecting signal propagation.
-  **Predictive Access Point Planning**  
Simulate and optimise access point placement to achieve the required coverage and capacity.
-  **Comprehensive Design Report**  
Generate a predictive design report including AP placement, coverage maps and capacity planning.
-  **Client Review Session**  
Review the design with the client and confirm final adjustments before deployment.

## OUTCOMES OF A PREDICTIVE WIRELESS SURVEY

- Optimised access point placement for reliable coverage
- Wireless design tailored to operational requirements
- Accurate hardware planning before installation
- Future-ready infrastructure supporting modern Wi-Fi standards
- Detailed design documentation for deployment

Email [support@duxnet.co.za](mailto:support@duxnet.co.za) to book a Predictive Survey

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