

RF Design and Management Software: Motorola LANPlanner®

Ensuring High Performance WLAN Networks



Building a wireless network that delivers superior Quality of Service (QoS) and maximum value from your investment means designing it for the conditions in which it operates and the capacity and coverage that customers require. The multitude of wireless applications, impact of environmental factors, and variety of network equipment configurations can present daunting challenges to even the most experienced wireless network designer.

Predictive Design for WLAN Networks

Motorola LANPlanner® enables network planners to rapidly and accurately design robust wireless networks with the capacity, reliability, and performance required for implementing the most demanding wireless applications, in the most challenging environments. LANPlanner takes wireless network performance to the next level, ensuring that critical wireless applications and infrastructure are effectively deployed, fully functional.

At the heart of LANPlanner is an RF-intelligent, site-specific 2D/3D model of a deployment facility. LANPlanner allows network designers to predict and visualize the impact of construction materials, the intended use of the network, and the potential impact of co-channel interference. As a result, LANPlanner can reduce wireless network planning, deployment, and operating costs—while providing superior wireless QoS.

RF-Intelligence Enables Optimal Wireless Network Performance

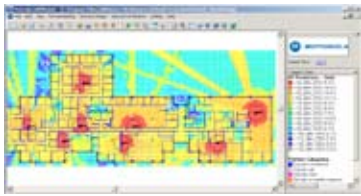
LANPlanner's easy to use GUI allows you to quickly import building and site information from a variety of formats including AutoCAD® files, scanned images, and hand drawn floor plans. This import becomes RF-intelligent after users map the characteristics of interior and exterior walls and other potential wireless obstructions to Motorola's RF attenuation library.

Fast and Efficient WLAN Planning for Demanding Applications

After creating the RF-intelligent model, designers add information about the number of users, their locations, and the applications they plan to use. LANPlanner then combines this information with the RF-intelligent model to recommend the number and placement of Access Points (APs).

“An investment in network design can affect a 50% savings in WLAN setup costs.”

—Gartner
“Wireless LAN Technology Scenario”



Run “what if” scenarios to visualize WLAN coverage



Survey the deployed network to validate performance

LANPlanner Reporting and Measurement Capabilities Save Time

Access point configuration can be difficult, especially for large wireless network deployments. To save time and money during deployment, LANPlanner generates reports in Microsoft Word® format that contain access point locations, data rate requirements, channel assignments, power levels, and SSID allocations. After deployment, teams can also collect network performance data and visualize heat maps of the information they collected, validating that the deployed network performs to expectations.

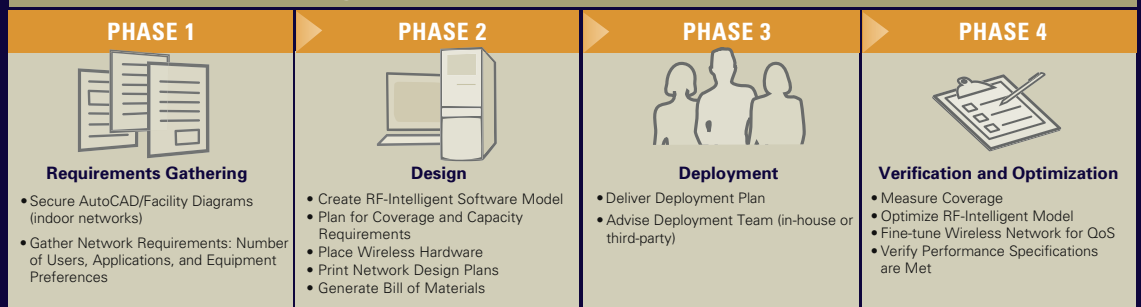
From Requirements Gathering to Post Deployment Verification

LANPlanner is a key driver of Motorola’s Wireless Network Design Process. With this software, users are able to perform Phase 1, 2 and 3. This approach ensures that network planning teams consider the impact of applications, user density, and the deployment environment on network performance. The design plan can also be used to simulate network expansion or confirm the viability of adding new wireless applications.

Features and Benefits

- Rapidly define user throughput regions and automatically place access points and sensors to achieve a network design plan with user-driven coverage and capacity requirements
- Configure access points and sensors and predict how RF activity will impact your wireless network performance and QoS
- Graphically visualize the physical location and configuration of all installed network equipment
- Review QoS critical information such as RSSI (Received Signal Strength Intensity), SIR (Signal to Interference Ratio), SNR (Signal to Noise Ratio), and user region data rates
- Verify post-deployment network performance and visualize heat maps of measured data
- Quickly load AutoCAD, PDF, JPEG, and any common building or site map file format and create a reusable, extensible RF-intelligent model
- Automatically generate bill-of-materials and maintenance records for use by deployment teams and in future network expansion
- Reduce the total cost of ownership (TCO) of wireless networks by eliminating the costly rework that frequently occurs with measurement based network design.

Wireless Network Design Process



The Motorola Advantage

Motorola pioneered voice communication and mobile communication technology. This experience enables us to help you design, customize, and control your own network—thereby increasing efficiency, interoperability, and security throughout your entire organization.



Motorola, Inc. • 1301 E. Algonquin Road • Schaumburg, Illinois 60196 U.S.A.
www.motorola.com/rfdesign • 1-800-901-6484 • 1-512-821-1560

RC-10-2021

MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their respective owners. © Copyright Motorola, Inc. 2006