

RF Design and Management Software: Wireless Network Design Services Helping to Overcome Your Wireless Network Challenges



Building a team with the specialized RF expertise needed to design complex indoor and outdoor wireless networks can challenge even the most sophisticated network managers. That's where Motorola's Wireless Network Design Services can help. Working with your team, our experts create a wireless network design that can sustain high data rate applications and meet your most demanding Quality of Service (QoS) requirements.

The wireless network design life cycle can be challenging at every step in the process, from requirements gathering and analysis to achieving maximum QoS. During design, network specialists must understand the physical environment's impact on wireless signal coverage and the intended use of the network to avoid capacity bottlenecks, interference issues, and infrastructure cost overruns later in the process. Ad-hoc measurement-based methods like site-surveys may work for small wireless networks, but large networks running data-demanding applications require a different approach to design.

Motorola's RF Design and Management Software Design Services team addresses these wireless network design issues with consulting services that begin at requirements gathering and continue through design and performance optimization. These services allow you to achieve maximum QoS and Return on Investment (ROI) from your indoor and outdoor wireless networks.

Achieving Maximum Results from Your Wireless Network Through a Structured Approach to Design

The process used when designing a wireless network has a profound impact on infrastructure cost, network performance, and QoS. Wireless Network Design Services from Motorola make wireless network ROI easier to achieve with a structured four phase approach to wireless network design:

Phase 1

The Motorola team gathers your facility diagrams and AutoCAD files, or for outdoor networks, Geographical Information Systems (GIS) maps. This information serves as the starting point for constructing your site-specific, RF-intelligent software model. Motorola also captures the expected number of wireless clients, their locations, application bandwidth requirements, and preferred wireless access point/base station models. The team can also conduct a preliminary field test to collect

readings which will help designers architect or adjust the network to account for existing interference and specifics of the environment.

Phase 2

Motorola's consultants use our RF Design and Management software to convert the gathered information into an RF-intelligent, site-specific software model. Each item within the model is tagged with a material type from a library of common materials such as sheet rock, foliage, brick, glass, hills or buildings. On this RF-intelligent model, Motorola's consultants plot the number of users in each area, indicate the types of applications to be used and place virtual access points/base stations. The designer then interactively simulates how the wireless signals will propagate and identifies channel interference, coverage holes, capacity bottlenecks, or issues associated with coverage leakage. The design is then completed using "what if" analysis to determine optimum performance.

Phase 3

Motorola delivers a complete, RF-intelligent wireless deployment plan to your network installation team which includes the location of access points, channel configurations, and power settings. Using this plan, your deployment team can purchase, install and configure all wireless hardware for optimal performance. For a service provider, Motorola's team can provide a wide array of reports for visualizing network specifics which can be used in project proposal activities.

Phase 4

After deployment, Motorola's design consultants "drive test" your wireless network and take measurements. This live data is used to fine-tune and optimize the wireless network, including adjusting obstruction models and access point/base station channel and power settings. The result is a wireless network with the coverage, capacity and performance required for your most demanding applications. To complete the project, Motorola provides your team with the refined deployment models and can train your team for follow-on design projects or future network expansion.

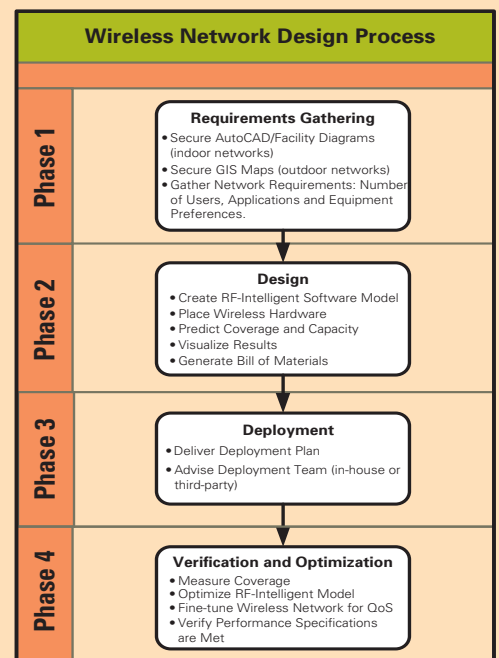
Features and Benefits

Motorola's Wireless Network Design Services help you achieve maximum wireless network performance and QoS by:

- Eliminating the guesswork associated with ad-hoc wireless network design methods
- Implementing a proven, scalable process for wireless network design
- Achieving on-schedule and on-budget wireless network designs
- Expanding the expertise of your wireless network team
- Ensuring QoS requirements with predictable project delivery and cost
- Focusing on your core competencies while taking advantage of Motorola's specialized RF expertise

For more information about how Motorola's Wireless Network Design Services organization can help your team, email RFSoftwareSales@motorola.com or call at 800-367-2346.

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



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