Planning for 802.11n Deployments

AirMagnet offers the first and only comprehensive mobile toolset for planning, securing and optimizing 802.11n networks

802.11n will significantly increase reach, reliability and throughput associated with WLANs, yet it also introduces complexity that IT managers need to understand in order to manage the impact of 802.11n to new or existing networks. Without mature 802.11n design and performance tools, organizations are left with a daunting and confusing task to ensure the top-level network performance they expect. AirMagnet offers the first and only comprehensive mobile toolset for planning, securing and optimizing 802.11n networks. Through the use of AirMagnet’s award winning and easy-to-use tools, users can embrace and confidently deploy 802.11n wireless networks.

802.11n Deployment Challenges
AirMagnet addresses two universal challenges facing 802.11n deployments

• How to get true 802.11n performance versus theory
• How to phase 802.11n gear into an established WLAN without doing a forklift upgrade or experience conflicts that rob the network of performance

Whether deploying a new 802.11n network, or integrating 802.11n technology into an existing infrastructure, AirMagnet solutions are critical for measuring the impact of 802.11n, modeling deployment scenarios, and optimizing ongoing security and performance management. The products let organizations effectively deploy 802.11n networks by offering the only independent view of the access points, client and surrounding environment.

AirMagnet 802.11n Solution
The AirMagnet solution for 802.11n, including AirMagnet Survey and AirMagnet Laptop Analyzer, allows organizations to overcome 802.11n challenges by:

• Educating the user on 802.11n technology
• Modeling deployments and the impact 802.11n will have on the network
• Optimizing the network once deployed to ensure security, performance and reliability

AirMagnet Survey PRO
AirMagnet Survey PRO enables users to collect live signal, packet and spectrum data during site surveys. This allows network performance to be measured with the most accurate depiction of a real-world user experience, which ultimately results in a better performing network.

AirMagnet Survey Features for 802.11n
Coverage maps to plan and verify infrastructure configurations and performance.

• Operating mode coverage map visualizes where overlap from APs in different modes may cause problems
• Channel width (20/40 MHz) coverage map shows areas where 40 MHz channel bonding is used
• MCS transmit/receive coverage map displays true network performance

Iperf surveys actively measure uplink and downlink network performance.

• Set network design goals and visualize
  – If high MCS values are being used to maximize throughput in all locations
  – Areas on the floor where channel bonding (40 MHz) is used
  – The Operating mode of the deployed access points (Greenfield, Mixed mode, Legacy)
AirMagnet Laptop Analyzer PRO
AirMagnet Laptop Analyzer PRO helps to quickly resolve performance problems, while automatically detecting security threats and other network vulnerabilities. Although compact, Laptop Analyzer PRO has many of the feature-rich qualities of a dedicated, policy-driven wireless LAN monitoring system.

**AirMagnet Laptop Analyzer Features for 802.11n**
AirMagnet Laptop Analyzer PRO includes a one-of-a-kind toolkit to analyze the unique relationship between APs, client adapters and environment to best configure the network for ideal uplink and downlink performance.
- Throughput Simulator tool models impact of 802.11n on network performance
- Device Throughput Calculator tool determines the best AP to deploy
- Efficiency tool enables maximum value from the 802.11n network
- 802.11n Analysis tool displays live 802.11n statistics
- Throughput measurement tool measures live 802.11n performance
AirMagnet Laptop Analyzer PRO also has educational tools and guided tours to help users understand and solve common 802.11n problems and new 802.11n alarms to alert users on 802.11n mis-configurations and coexistence issues.

**AirMagnet 802.11 a/b/g/n Wireless Adapter Card**
This card offers increased reliability, and backward compatibility for a, b, g or n networks. When used with AirMagnet Laptop Analyzer and AirMagnet Survey, end-users have the ‘know-how’ they need to accurately and efficiently design and deploy 802.11n networks.