Datasheet: AirMagnet Planner

AirMagnet Planner accounts for building materials, obstructions, access point configurations, antenna patterns and a host of other variables to provide a reliable predictive map of Wi-Fi signal and performance. The solution without rolling out any APs physically, offers superior predictive modeling to determine ideal quantity, placement and configuration of APs for optimal security, performance and compliance.

AirMagnet Planner includes built-in automated tools to help users with their migration strategy from existing legacy 802.11a/b/g networks to the new 802.11ac and 802.11n technology

AirMagnet Planner can be purchased as a separate product or as a fully integrated feature of AirMagnet Survey. When integrated with AirMagnet Survey, users have a powerful solution that combines state-of-the-art predictive modeling with real-world performance data.

Great Networks Start with Great Design

An accurate network plan can be the most critical step of a successful wireless deployment. An unscientific plan can lead to over-spending on network infrastructure or lead to underserved and unhappy end users. AirMagnet Planner removes the need for guess work and lets installers estimate the quantity, placement and configuration of APs required to deliver full coverage for end users while minimizing signal bleed into unsecured areas. Users can preview the network by channel or SSID, ensuring the network conforms to any user specification. As network engineers plan new technology rollouts, they must resist an easy temptation of performing a simple 1-to-1 replacement of the existing network with newer technologies like 802.11n and 11ac. Even though these 1-to-1 replacements are the fastest way for rollouts, they are not the best and often lead to poor network performance and finally costly rework. The use of professional tools like AirMagnet Planner helps define a migration strategy (rip and replace vs slow rollout) from existing 802.11a/b/g networks to 802.11n as well as 802.11ac networks. AirMagnet Planner also helps to estimate budgets and make “go/no-go” decisions before AP roll outs, so there are no more embarrassing or career-impacting decisions made blindly.

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Wi-Fi Tailored to the Environment

AirMagnet Planner makes it easy to build a detailed model of any wireless environment, even before the network is deployed. Simply load in a map of the location, and use the built-in library of walls, doors and windows to precisely match the building's characteristics. The environment can also be customized to account for cubicles, offices, elevators and a variety of warehouse obstructions. All environmental settings are fully customizable and custom materials can be created from scratch to meet the user specifications.

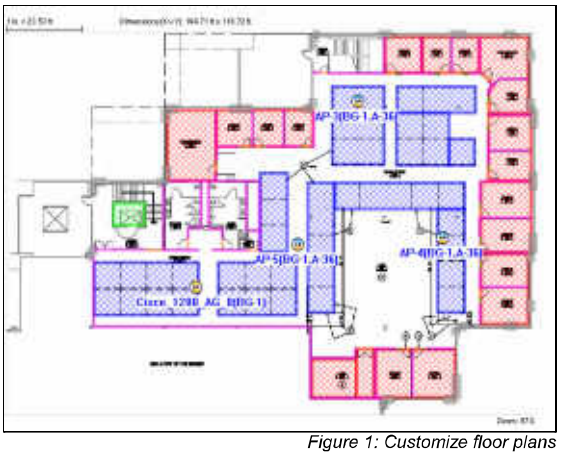

Figure 1: Customize floor plans

Build the Network

AirMagnet Planner provides full control of the proposed wireless infrastructure to the users. They can add APs to any location and experiment to find the ideal AP placement for the environment based on their requirements. AirMagnet Planner also provides full control over all AP settings with independent settings for 2.4 GHz and 5 GHz radios. Users can set the AP channel, IP address, transmit power, antenna type, orientation, height and 802.11ac and 802.11n specifications. When the planning session is complete, users can generate a professional Bill of Materials report with all the information that is needed to properly install the network, and includes a complete list of required APs, their ideal placement and configuration settings. Along with RF coverage information, users are also powered with performance metrics such as data rates and throughput.

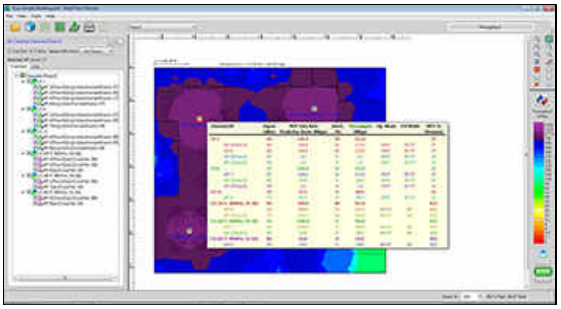

Figure 2: *802.11ac coverage maps*

Multi-Floor Modeling

As users plan and design wireless access in multi floor buildings, it makes economic sense to reuse services of APs to lower equipment deployment costs. With AirMagnet Planner's new multi-floor planning capability, users can visualize coverage and performance heat maps in 2D and 3D across floors providing powerful insight into bleed over to adjacent floors.

Users are powered with visualizations of signal strength, data rates, 802.11ac and 802.11n coverage maps such as Operating Mode, MCS Transmit Rate, Channel Width and Channel Overlap between floors and more.

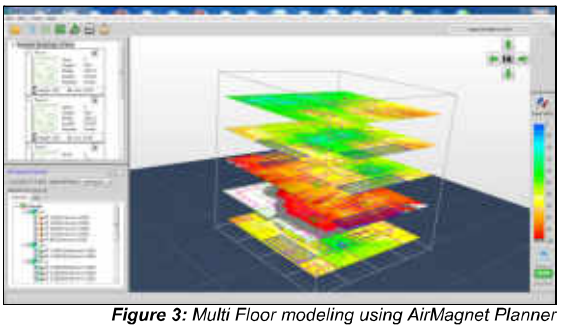

Figure 3: *Multi Floor modeling using AirMagnet Planner*

802.11ac and 802.11n Modeling

AirMagnet Planner is the WLAN industry's only planning solution that covers all aspects of a successful 802.11ac and 802.11n deployment: migration, performance prediction and validation. Users can design new 802.11ac and 11n networks, as well as, plan their migration strategies for existing legacy networks, including one-to-one replacements or the phased introduction of 802.11ac or 11n devices into their legacy network. Users can plan their 802.11ac and 802.11n deployments for maximized performance without any physical AP rollout and are powered with unique coverage maps for WLAN throughput and other technology specific heat maps such as signal coverage maps, Operating Modes MCS Transmit Rate,Channel Width and Channel Overlap to predict the WLAN performance at every location on the floor, and provide the best design that minimizes any rework once the network is deployed. Since AirMagnet Planner is part of a single, seamless application with AirMagnet Survey PRO, users can validate "modeled" 802.11ac and 11n results against "real-world active" post-deployment surveys.

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Automated WLAN Modeling

AirMagnet Planner also includes an “advisor feature” to automatically place APs on site floor plans. Users can specify the minimum signal coverage expected, the transmit power, media type of the AP, etc. and mark Wi-Fi coverage areas and areas where APs cannot be placed.

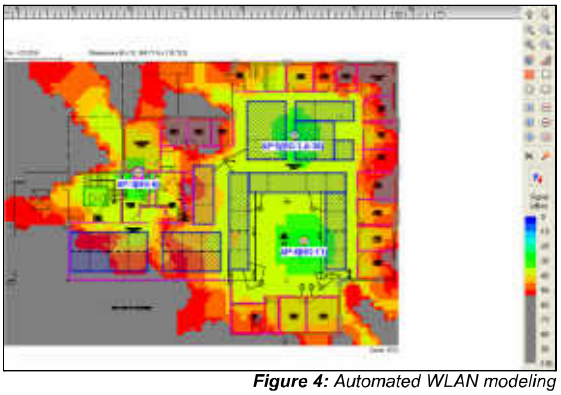

Figure 4: *Automated WLAN modeling*

Automatic Wall Extraction

AirMagnet Planner allows walls to be read in directly from a layer in a CAD file. This reduces the amount of time spent in preparing a floorplan for wireless design by quickly importing walls with only a few clicks of the mouse. Each CAD layer can be individually given a unique attenuation type to get the most accurate model possible for the site.

Custom Antenna Design

AirMagnet Planner includes over 300 of the most popular antenna patterns on the market for customizing APs, including Cisco, Aruba, Ruckus Wireless, Meru Networks, HP, Symbol, 3Com, Bluesocket, Motorola, D-Link Systems, Samsung, Meraki, Juniper, Xirrus, etc. AirMagnet Planner also includes a built-in tool to create customized antenna patterns, allowing users to replicate the characteristics of literally any available antenna.

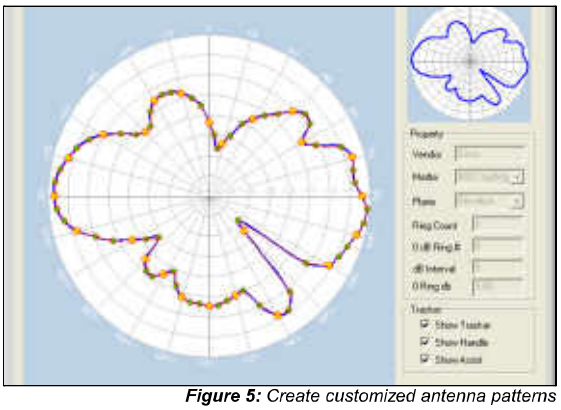

Figure 5: *Create customized antenna patterns*

Integration with AirMagnet Survey

AirMagnet Planner is built into AirMagnet Survey PRO, providing a single, seamless application with the industry’s most complete approach to wireless LAN design, deployment and ongoing optimization for 802.11a/b/g/n/ac networks. With this integrated solution, users can use AirMagnet Planner to accurately model their WLANs and plan for optimum performance, then validate the results with real-world data in AirMagnet Survey PRO. Using actual end-user performance metrics, users can further perfect their planning models over time. No other solution combines this state-of-the-art predictive modeling with realworld performance data. With this integration, users gain additional planning capabilities with the ability to validate their network plans against their design requirements using the AirWISE® engine.

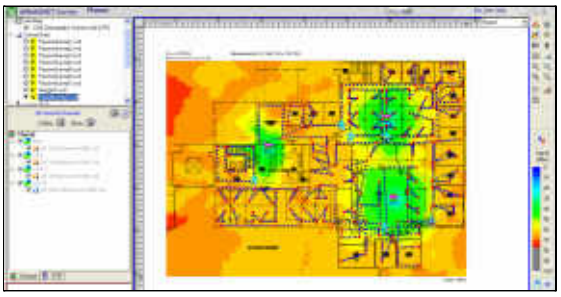

Figure 6: *Integration with AirMagnet Survey PRO*

Integration with WLAN Infrastructure Vendors

Users can create and export planner projects directly to Cisco WCS. This saves users time and resources needed in setting up of maps, AP placement locations and other WLAN deployment modeling activities by eliminating the need to repeat these tasks within Cisco WCS.

This integration dramatically increases operational efficiencies for both AirMagnet and Cisco WCS users by eliminating the need to repeat wireless planning and site survey tasks commonly associated with deployment and ongoing management of a WLAN network.

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Ordering Guide	
Product Name	Model
AirMagnet Planner (Standalone)	AM/A4012
AirMagnet Survey PRO (incl. Planner)	AM/A4018

Minimum System Requirements
Operating Systems: Microsoft® Windows 7 Enterprise/Professional/Ultimate or Microsoft Windows 8 Pro/Enterprise 64-bit, Microsoft Windows 8.1 Pro/Enterprise 64-bit, or Microsoft Windows 10 Pro/Enterprise 64-bit
Intel® Core™ 2 Duo 2.00 GHz (Intel® Core™ i5 or higher recommended)
4 GB or higher
800 MB of free disk space
A site map in a format supported by AirMagnet Planner (supported formats are: .bmp, .dib, .dwg, .dxf, .emf, .gif, vsd, .jpg, or .wmf.)

This product features Autodesk RealDWG technology: **http://www.autodesk.com/autodeskrealdwg

Note: AirMagnet Planner is not supported on the NetScout OptiView INA. Must install AirMagnet Planner on a separate PC.

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