netAlly®

AirMapper™ Survey InSites™

Application Note

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With no need for a laptop, dongles, tethered devices, or complex software requiring in-depth training to use effectively, AirMapper enables anyone to be a Wi-Fi site “surveyor!”

Using AirMapper Survey InSites for Automated Analysis and Visual Troubleshooting of Wi-Fi Networks

INTRODUCTION

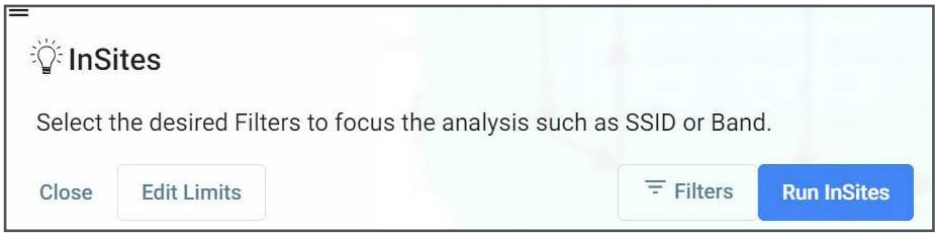
NetAlly changed the paradigm of Wi-Fi site surveying with the release of AirMapper Site Survey. With AirMapper, EtherScope® nXG and AirCheck® G2 users can quickly and easily gather location-based Wi-Fi measurements and create visual heat maps of key performance metrics in the Link-Live Cloud Service. Ideal for quick site surveys for new deployments, validating changes, visual troubleshooting, and fast performance verification, NetAlly is the first to provide a complete site survey and wired/wireless analysis solution in a handheld instrument, allowing Wi-Fi network professionals (and even non-experts) to perform a site survey without the need to carry around a laptop, use dongles, or tethered devices

InSites continues NetAlly’s mission of simplifying Wi-Fi site surveys by automating the analysis of coverage, SNR, interference, beacon overhead, and more. A simple pass/fail dashboard of test results eliminates the need for expertise and time-consuming manual evaluation. The results are automatically graded to configurable thresholds and allow users to directly view the specific heatmap to quickly identify any trouble areas.

GETTING STARTED

Once you’ve completed and uploaded your AirMapper Survey data to Link-Live, click the AirMapper icon: and open the desired project file.

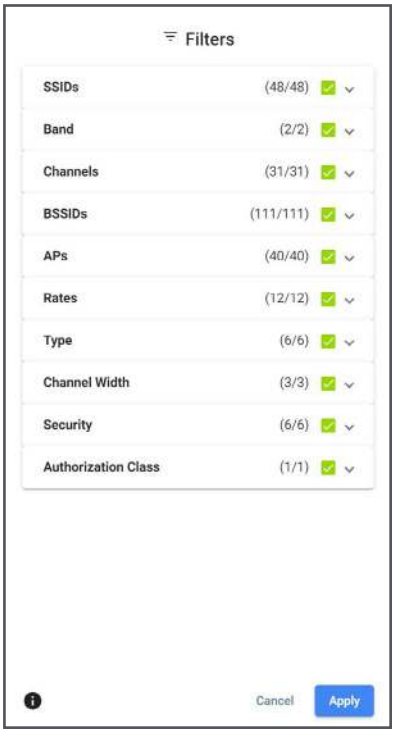
To access InSites, click the lightbulb icon at the top right this will bring up the InSites control panel.



To utilize the default thresholds and immediately see the results, select "Run InSites."

If you wish to modify the thresholds, or select only a subset of measurements to be utilized, select "Edit Limits" – make your desired changes and select "Apply"

To focus your analysis, you can use the Filters function to select from the available SSIDs, bands, channels, etc.



ANALYZING RESULTS

Upon selecting “Run InSites” the InSites results window is shown. Here you will see the pass/fail result along with the threshold limit setting and the worst result found on the heatmap. The measurements include:

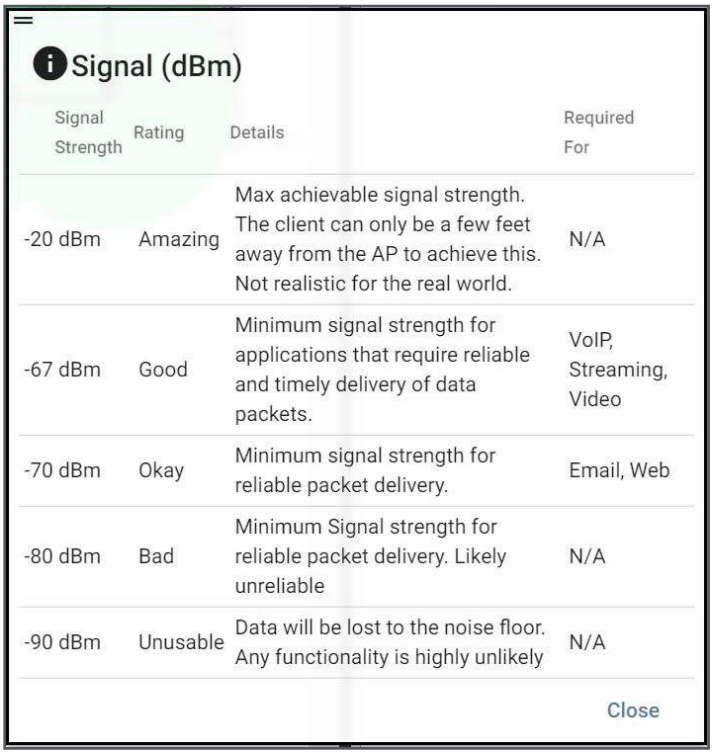
- First AP Coverage
- Secondary AP Coverage
- SNR (dB)
- Co-Channel Interference (CCI)
- Adjacent Channel Interference (ACI)
- Beacon Overhead
- Max TX Rates (Mbps)

To see exactly which areas on the heatmap are not meeting each threshold, click on the measurement’s “Apply” button: This displays each metric’s heatmap and automatically sets the threshold slider to the pre-set value.

(Note: clicking the “Close” option closes the InSites analysis. Select “Hide” to keep InSites analysis running but to hide the results panel; click the lightbulb InSites icon to re-open the panel.)

In this example, First AP Coverage has failed (threshold is -45dBm but the strongest signal is -59dBm). Clicking the apply button automatically changes the heatmap visualization to show the exact areas that have failed (see gray areas on heatmap.)

Clicking the Information icon ⓘ on each measurement provides details about the measurement, describes the metric and its impact on the performance of the network.



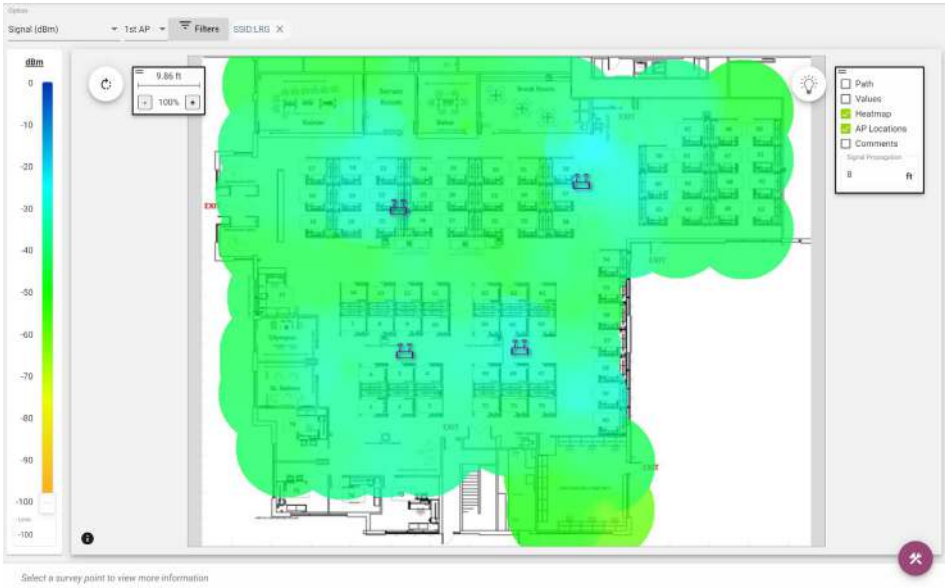
Signal (dBm)

Signal Strength	Rating	Details	Required For
-20 dBm	Amazing	Max achievable signal strength. The client can only be a few feet away from the AP to achieve this. Not realistic for the real world.	N/A
-67 dBm	Good	Minimum signal strength for applications that require reliable and timely delivery of data packets.	VoIP, Streaming, Video
-70 dBm	Okay	Minimum signal strength for reliable packet delivery.	Email, Web
-80 dBm	Bad	Minimum Signal strength for reliable packet delivery. Likely unreliable	N/A
-90 dBm	Unusable	Data will be lost to the noise floor. Any functionality is highly unlikely	N/A

Close

IDENTIFYING AP LOCATIONS

Also new in Link-Live version 5.14 is the ability to identify the approximate physical location of access points in AirMapper heatmaps. In the AirMapper control panel, selecting “AP Locations” places the location of the access points on the heatmap. Filtering can be used to narrow the results to a specific SSID, or channel can be selected to see which APs are transmitting on which channels, for example.



For in-depth training on using AirMapper, see our online courses here www.gotostage.com/channel/netally