



Nokia Site Survey Tool – Easy planning and testing of Wireless LAN coverage

The Nokia Site Survey Tool builds up a picture of the coverage of a Wireless LAN access point, making it easy to plan and improve indoor wireless coverage.

The Nokia Site Survey Tool is a Windows™ application that maps the coverage area of an indoor wireless access point. It does this by analysing the communications over a Wireless LAN between a client and an access point at particular locations and plotting throughput results on a colour-coded map.

Together with a floor plan of the building, the map can be used to improve wireless coverage – simply reconfigure or reposition the access point or move the office furniture, then re-sample an area and overlay the results for analysis within the tool.

Get the transmission rate you need

The Nokia Site Survey Tool captures two main classes of data. These are:

- Throughput – the median transmission rate of a set of samples, in Kbytes/s
- Stability – the average deviation of the transmission rate from the median, in +/-Kbytes/s

The tool does this by sending and receiving a two-second burst of data to determine a transmission rate. The transmission rate of each cycle is recorded as a set of samples, which is then used to calculate the throughput and stability.

Easy to use

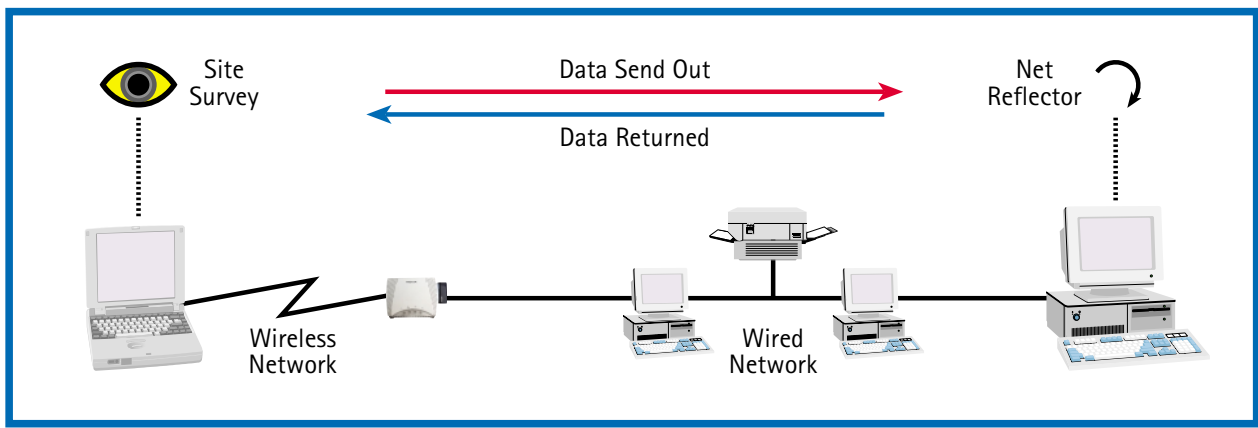
The Nokia Site Survey Tool is very easy to use. Setting up is simple – just specify a floor plan or map size and start a reflector on another

computer. Then, position a wireless client at different locations around the building and use the Nokia Site Survey Tool to create flags of sampled data on a map. Once three flags have been added, colour begins to appear on the map, with green representing good and red being bad. The more points added, the more accurate the coverage map becomes. Areas between the flags are coloured using linear interpolation.

Visual data gives easy interpretation

Throughput and stability are shown on two real-time gauges, which show threshold values for both good and bad coverage areas.

Initially, thresholds are set to Nokia-defined levels. These levels can be adjusted using sliders, allowing coverage characteristics to be enhanced and finer detail to be seen within the coverage area.



The coverage map can be customised to show throughput, stability or a composite of both, overlaid on the floor plan. Sessions of sampled data can also be overlaid, enabling comparisons based on access point location, channel and time of day.

The time taken to copy files between a wireless client and the wired network can easily be calculated as the file size divided by the throughput. However, while throughput is important, a high level of stability is even more critical – unreliable areas of coverage, where the throughput may well change over time, could result in a loss of service and transmission timeouts.

Additional Features

The Nokia Site Survey Tool is packed full of readily-accessible features that make it easy to use:

- Context menus throughout the application
- Session overlays for multiple-floor analysis – coverage maps can be overlaid as transparencies
- Warnings for non-standard thresholds

- Missing floor-plans and sample points can be moved, edited and copied between computers
- Current session is restored on startup
- Includes tool tips, start-up wizard and integrated interactive tutorial
- Designed for low-resolution portables: 640 x 480 displays supported; Tool bars and status bar can be hidden to increase visible map area; Map can be panned and scaled.

Main benefits

- Windows-based application for mapping the wireless coverage of an access point
- Measures the throughput and stability of the connection between a client and an access point
- Simple user interface with easy-to-understand twin-gauge display
- Data can be plotted on a floor plan to highlight good and bad reception areas

