



Wi-Fi síť – návrh a monitoring

Capacity calculations

How many users?

x How many devices per user?

+ How many other devices?

= Devices and their types

x Which applications are run on the devices?

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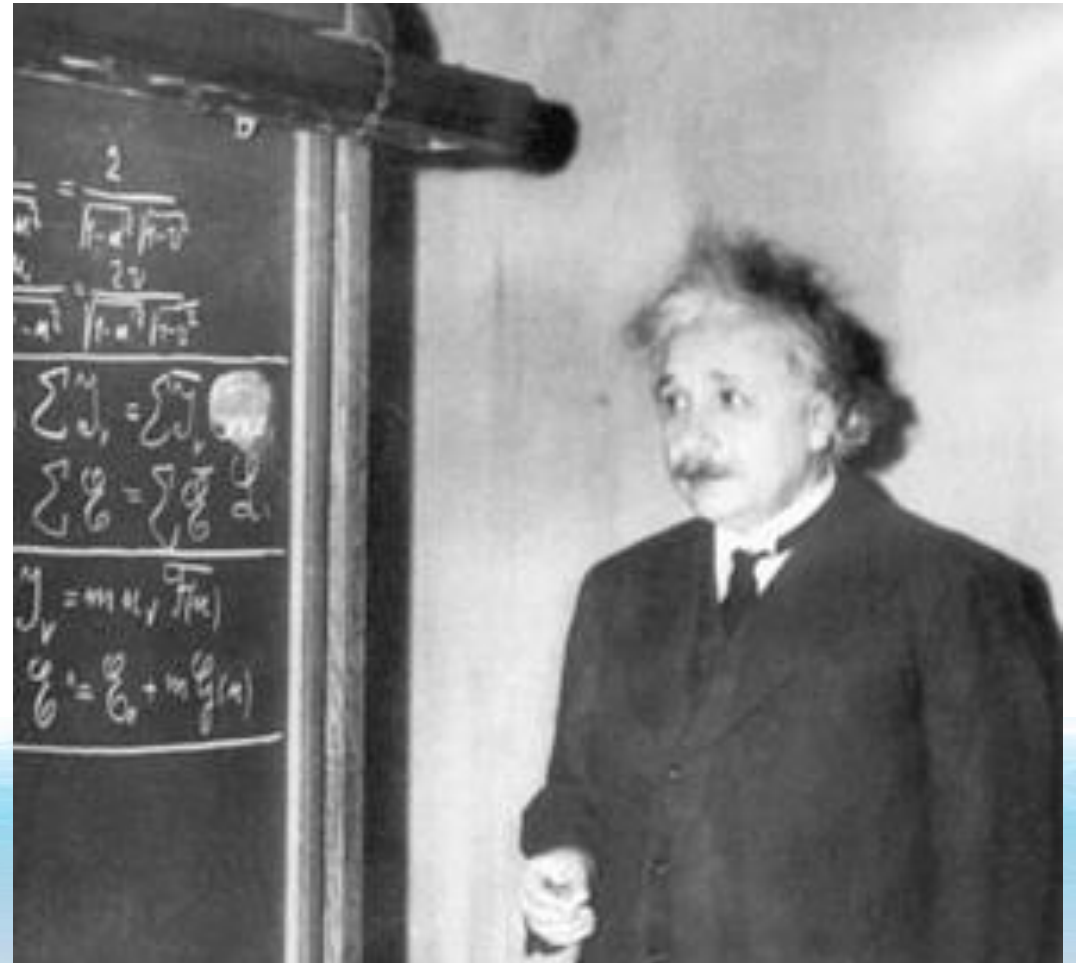
= Total capacity required





What else affects capacity?

- Areas to cover
- Types of end user devices
- Types of access points
- Channels/bands used
- Single / multiple floors
- Wall materials



Ekahau Site Survey 8.x

Wall Material Editor

Wall Outlining Wizard (WOW) - No More Wall Drawing

CAD floor plan (DXF or DWG)

Throughput Site Surveys

Second computer required
in the network to act as the
throughput server (iPerf v3)

The screenshot displays the Ekahau Site Survey software interface. The main window shows a floor plan with walls outlined in brown. A configuration panel is open, showing various settings for wall materials. The panel includes a search bar, a list of access points, and a configuration table. The configuration table has columns for Attenuation, width, dB/meter, height from floor, height from ceiling, color, and name. The current configuration is for 'Wall, Concrete (24.0dB/m)'. The configuration table shows the following data:

Attenuation	width	dB/meter	height from floor	height from ceiling	color	name
12 dB	1.6 ft	24 dB/m	ft	0 ft	Wall, Concrete	Wall, Concrete

Two callout boxes provide additional information:

- Left to right: Attenuation, width, dB/meter, height from floor, height from ceiling, color, name
- Add, edit, remove walls



AirScout



Cloud Storage



Tablet or Laptop
Based application

Up to 30
Clients

Master
Controller

Survey

- Survey the entire house.
- Listening for:
 - Other Wi-Fi
 - Congestion

Optimal Channel

- Least congestion
- Best overall coverage

AP Optimal Location

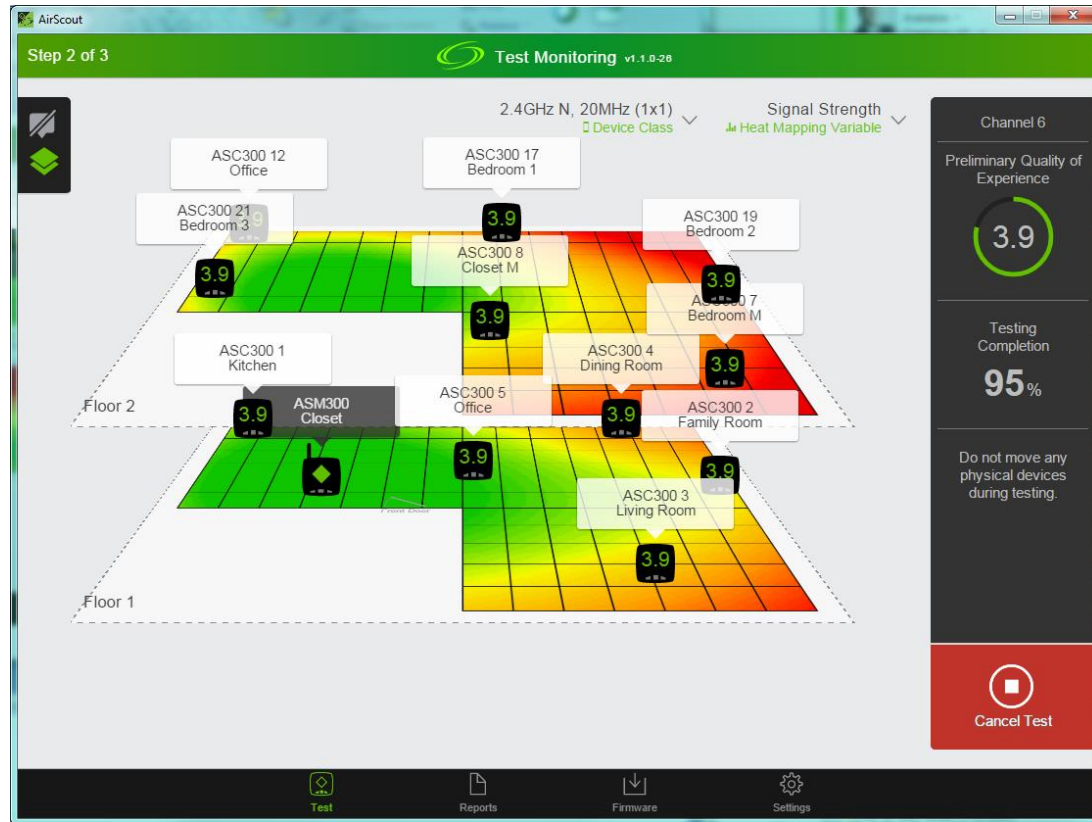
- Considers
 - All clients
 - Interference
 - Congestion

Quality Of Experience

- Weighted Function of:
 - Congestion
 - Interference
 - Signal
 - Applications

Report

- Data gathered
- Channel chosen
- AP Location
- PDF
- Store locally and to Cloud



- Real Attenuation
 - Through the building
 - To multiple sites
- Signal to Noise Ratio (SNR)
- Interference
- Congestion

