

WIFI NETWORK MONITORING SYSTEM



WiFiMon

What is WiFiMon?

WiFiMon is an open-source WiFi network monitoring and performance verification system.

- Vendor - independent, transparent to the WiFi network users;
- Uses well-known open-source components:

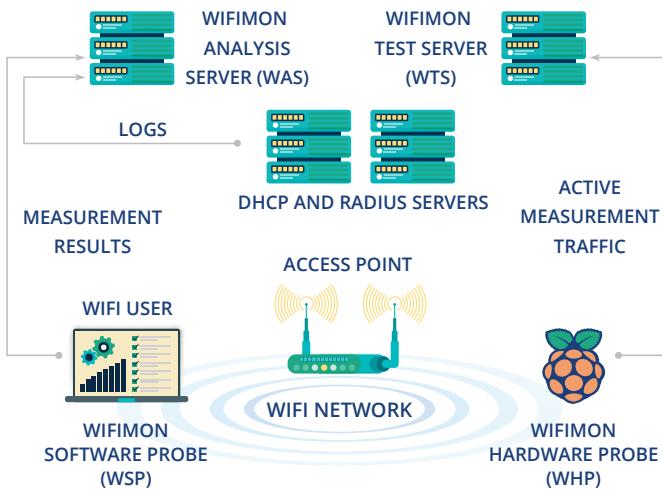


- Active monitoring tool which only adds a very low network overhead;
- Independent of WiFi network technology (suitable for eduroam);
- Captures user's perception of the network quality and provides metrics like: throughput, latency, signal strength, link quality.



How it works

- WiFiMon uses 2 methods to gather performance monitoring data:
 - **Crowdsourced measurements** between end-user devices and a test server
 - **Hardware probe measurements** between devices at fixed Wi-Fi network locations and a test server
- Performance data collected from active measurements are:
 - Calculated by end-devices (WSP's and WHP's)
 - Streamed to the WiFiMon Analysis Server (WAS) for processing and storage
 - Optionally correlated with RADIUS/DHCP logs for richer analysis, e.g. throughput per access point
 - Visualized through various dashboards of the WAS



Who is it for?

NRENs

Campus Networks

Conference Venues

Why do Institutions need WiFiMon?

- WiFi is among the most popular network access methods;
- Measuring the performance of the WiFi network is challenging:
 - Shared medium;
 - Physical obstacles;
 - Other networks;
 - Antenna positioning.
- Vendor-agnostic;
- Transparent for users:
 - Measurements are triggered automatically upon visiting a monitored website;
 - No need for end users to install any application;
- Creates low network overhead;
- Captures user experience in addition to well-known metrics like signal strength, throughput.

WiFiMon Wiki Knowledge Base

For further information about WiFiMon including a detailed technical overview and implementation guidelines visit:
network.geant.org/wifimon



Register free for WiFiMon announcements: wifimon-announce@lists.geant.org

Join the WiFiMon-users email list: wifimon-users@lists.geant.org

Contact the WiFiMon Developers: wifimon-ops@lists.geant.org