WIFI NETWORK MONITORING SYSTEM
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:
  - ELK Stack
  - LibreSpeed
  - Akamai
  - NetTest
- 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