

Mobile Quality of Service Analysis



To satisfy mobile consumers and support enterprises' business needs, mobile networks must, more than ever, reach the highest levels of performance and availability.

Quality of service is a factor of differentiation and loyalty.

Measuring it is the first step towards achieving excellence.

Both operators and regulators will benefit from proactively measuring and analyzing mobile networks quality of service (QoS).

The primary objective is to make decisions faster:

- Reducing the delay between measurements, identification of the root causes of issues, and implementation of corrective actions is the way to keep ahead of your competitors.
- Accelerating QoS-related improvements significantly reduces costs: fewer incidents equals fewer customer complaints, fewer field interventions, a reduced churn rate,...

The challenges of measuring Quality of Service:

1. Logs collection



Measurement tools require heavy investments in CAPEX and OPEX.

2. Post-treatment and data analysis



Available solutions are feature-rich but complex to use. Only experienced radio engineers can fully exploit them.

3. Reporting



This phase requires numerous manual tasks. It is error-prone and time-consuming.



SMAQ : a tool designed to speed up analysis and report production, and reduce your costs

As a mobile operator, you want to:

- Compare your mobile network performance to your competitors'
- Control how your network performs before and after operational changes
- Prepare for the changes in technical objectives imposed with a license renewal

As a regulator, you may want to :

- Measure that Telecom operators meet the service quality levels imposed by their license
- Compare the quality of the different voice and data services
- Communicate on service quality improvements in your country

With SMAQ, you can :

- Upload logs and access reports **from the platform web portal** or from a mobile directly **from the field**
- **Automate post-treatment** and create pre-formatted reports for faster results
- Access **quantitative** (excel, pdf) **and visual** (maps) reports : voice/data, benchmarks, measurements optimization reporting, maps analysis
- **Store data records** for further analysis and simulations
- Exploit all of the available features, even with **limited radio expertise**
- Benefit from a solution available in SaaS mode **without onsite installation required**

Some of our achievements

without SMAQ

Biannual QoS measurement campaigns for Orange subsidiaries in Africa:

- 18 countries
- 5 full time resources
- 10 to 15 days to produce a country report

with SMAQ

- **2 full-time** ressources required
- **2-3 days** per country report

without SMAQ

The long post-treatment duration did not enable Orange Madagascar field teams to complete network optimizations at once. A second field trip was often necessary.

with SMAQ

- **Only 10 minutes** to generate the report from a drive test
- **100%** of network optimization projects completed first-time

without SMAQ

QoS measurements for an Orange subsidiary revealed poor 4G data download speeds. First-level analyzes indicated insufficient capacity of international links.

with SMAQ

- A diagnosis and recommendations **as soon as the campaign ended**
- **Within 6 months, 1st position** achieved for data speed