



Solution for User Experience Measurement

QoS Suite™ is an automated Solution that performs Quality of Service (QoS) Measurements from an End-User perspective on Mobile Networks (2G, 3G, 4G and WiFi). Innovation, reliability, traceability and operational efficiency are the main qualities of this Solution.



Use Cases

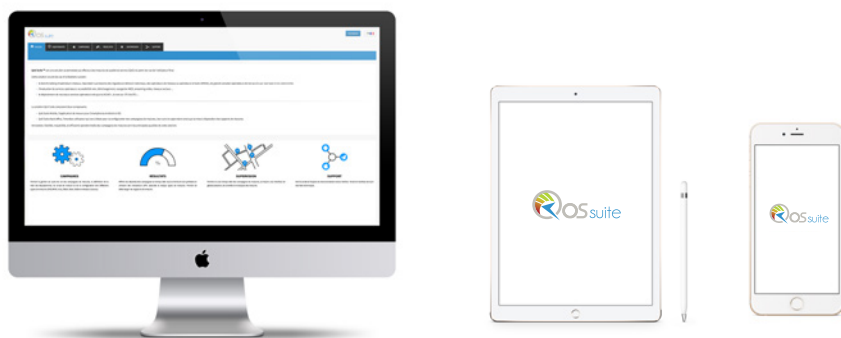
- ↳ Benchmarking of Operators Networks, on behalf of the National Telecoms Regulators, Operators Networks, Virtual Operators (MVNOs), Major Accounts like Transportation Operators and Local Authorities.
- ↳ Evaluation of Operator Services: Voice accessibility, Voice Quality Evaluation, SMS/MMS, Data Download/Upload, WEB Navigation, Video Streaming and Social Networks.
- ↳ Deployment of new Operators Services such as 4G/4G+, Voice over LTE (VoLTE)...

Available Measurements

- ↳ **Voice:** Service Accessibility and Quality Evaluation, Modes Mobile-Mobile or Mobile-Vocal Equipments.
- ↳ **SMS:** on co-localized or remote Smartphones.
- ↳ **MMS:** on co-localized or remote Smartphones, with configurable attachment.
- ↳ **Network:** Latency (Ping), file and data transfer (Upload and Download) on http, https and ftp protocols.
- ↳ **Web Navigation:** on unitary Web site, or a sites selection, loading time measurement with data volume transferred and screenshot attachment.
- ↳ **Video:** Video Streaming Quality measurement on popular Platforms (Youtube...), Manually or Automatic Quality Indicators measurements.
- ↳ **Facebook:** Data volume transferred and Throughput measurement linked to a post (Video or Picture).

Mobiles and Measures can be synchronized based on a reference time, this means that a measure is executed on the same time among different Smartphones and Operators.

Product overview



Mobile Application

The mobile application is running on commercial Smartphones (iOS and Android).

This application used by operators on-the-field is able to:

- ↳ Load automatically at startup a defined campaign (script and measurements parameters).
- ↳ Launch and follow-up the script execution, at the end a Mobile measurement report is automatically synchronized with the Backend. If network connectivity is not sufficient, reports are kept in the Mobile and synchronized later when better connectivity come back.
- ↳ Record measurement attachments used for the control:
 - Screenshots and video
 - Audio
 - Place Pictures.

Synchronization with the Backend is only done in WIFI (save fair use).

Backend & User Interface Portal

The User Interface Portal, dedicated to each Client is able to:

- ↳ Define the measurement campaigns : the Equipement list (Smartphones, SIM cards, Vocal Equipments and Throughput servers), the script and the measures parameters.
- ↳ Manage the campaigns lifecycle : creation, activation, suspension and termination.
- ↳ Supervise the campaigns results in Real-Time: from synthetic view using Key Performance Indicators (KPI) linked to each type of measures, to detailed measures geolocalized.
- ↳ Control the measurements: based on records (Audio, Video, Screenshots and place Pictures).
- ↳ Download the Client Measurements report.

Measurement report

A report contains for each measure :

- ↳ Mobile identifiers, Device information (Brand, Model, Software versions).
- ↳ Usage and Location identifiers.
- ↳ Battery level information.
- ↳ GPS coordinates.
- ↳ External IP for Data measurements.
- ↳ Measure (time, throughput, quality rate, assessment. . .).
- ↳ Network information depending on technologies (GSM, 3G, LTE and WIFI) : cell, signal strength, Network MNC/MCC. . .