

Users Tool for QoS measurement



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RATEL NetTest – goal and use

- **Goal:** to allow users verification and analysis of the quality of Internet access services and the flow rate at the selected point network by measuring performance of broadband system of fixed and mobile devices
- **Easy use:** It is optimized to work on Web browsers and mobile devices, in the form of applications based on platforms Android and Apple iOS.



QoS Parameters Submission

Submission by Operators

- Telecommunications operators are required to submit the quality of service measurement results at least once a year
- RATEL keeps and publishes records on the quality of public communication networks and services on its website



Measuring QoS Submitted by RATEL

We carry out QoS parameters measurements of:

- Mobile and Fix services
- Broadband services
- Internet
- VoIP



RATEL NetTest QoS crowdsourcing platform

- RATEL's NetTest: platform for measuring the quality of internet connection for fixed and mobile users
- NetTest follows the BEREC recommendation on internet coverage and quality
- The platform enables quality measurement of all kinds of internet connections:
 - Mobile internet connection (EDGE, UMTS, LTE)
 - Fixed lines connection (DSL, LAN, fibre-optic)
 - WiFi connection



RATEL NetTest QoS Crowdsourcing Platform

Customer side

Mobile NetTest

- ✓ Android
- ✓ iOS



Fixed line NetTest

- ✓ WebSocket



Fixed line measurements:

- ✓ ITU-T Y.1564
- ✓ RFC2544



(It is not part of the NetTest)

Regulator server side (IXP)



Control server



Map server



Database server



Web server



Test server



FTP server

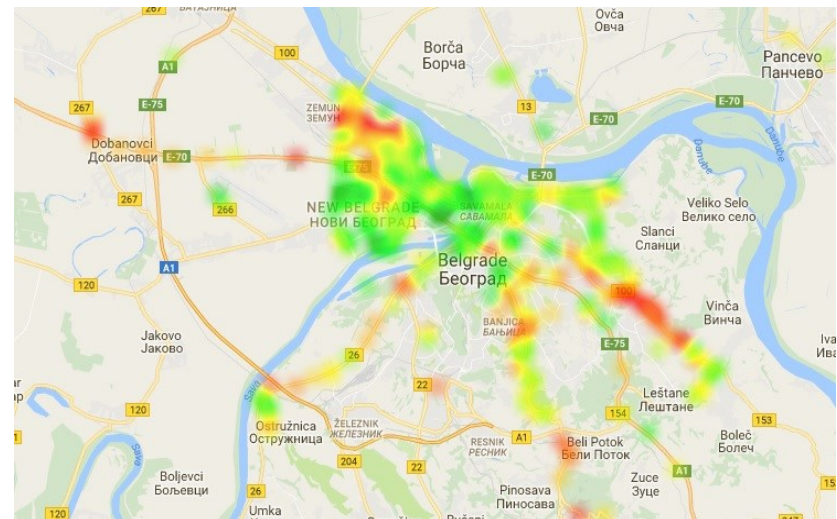
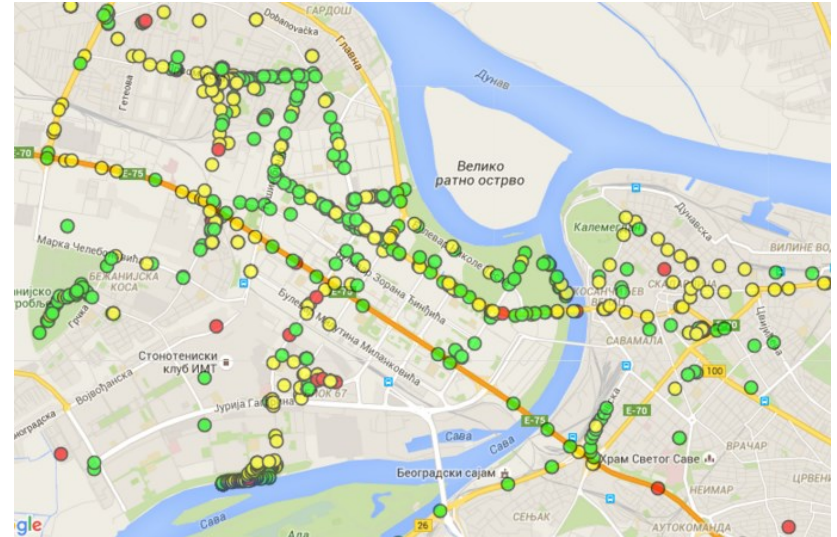


HTTP server

RATEL NetTest QoS parameters

Mobile, WLAN:

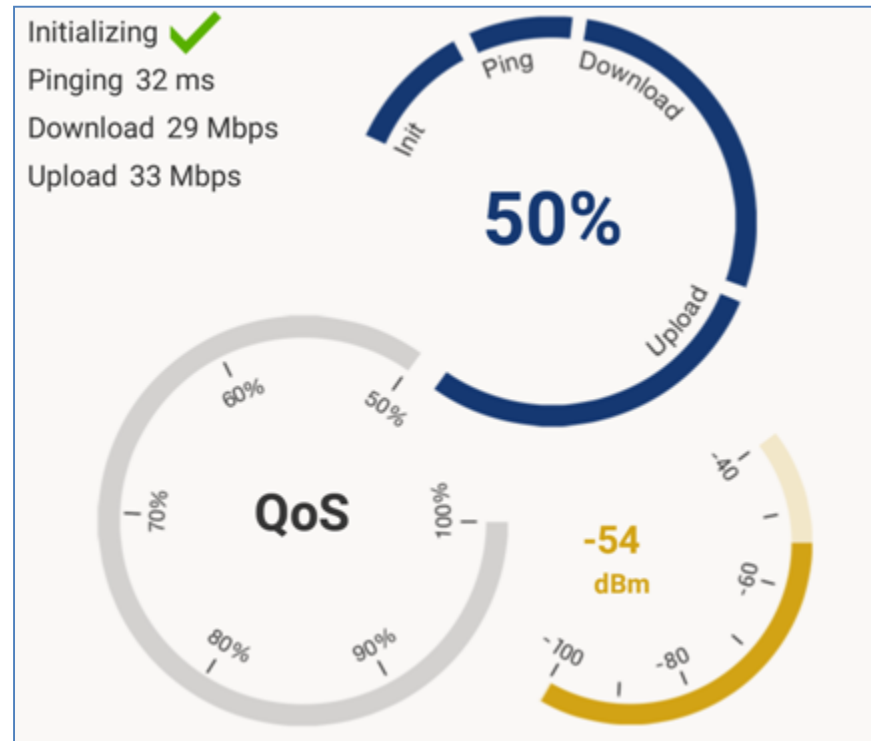
- Signal strength
- Up/Down throughput
- Jitter
- Ping
- Packet loss
- Traceroute
- VoIP test
- Unmodified content
- Web page test
- Connection transparency
- DNS availability
- TCP/UDP ports availability



RATEL NetTest QoS parameters

Fixed lines:

- Up/Down Throughput
- Ping



Future Plans

- Mobile Benchmarking tests (GSM, UMTS, LTE, LTE-A)
- Mobile Voice Quality, ITU-T P.863 (POLQA)
- RFC6349 TCP Throughput Testing
- FTP testing (verification with measurement equipment)
- HTTP testing (verification with measurement equipment)
- Feasibility study on QoS DVB-T2 Monitoring Network
- Operators quarterly reports on QoS network parameters



Thank you for your attention !

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