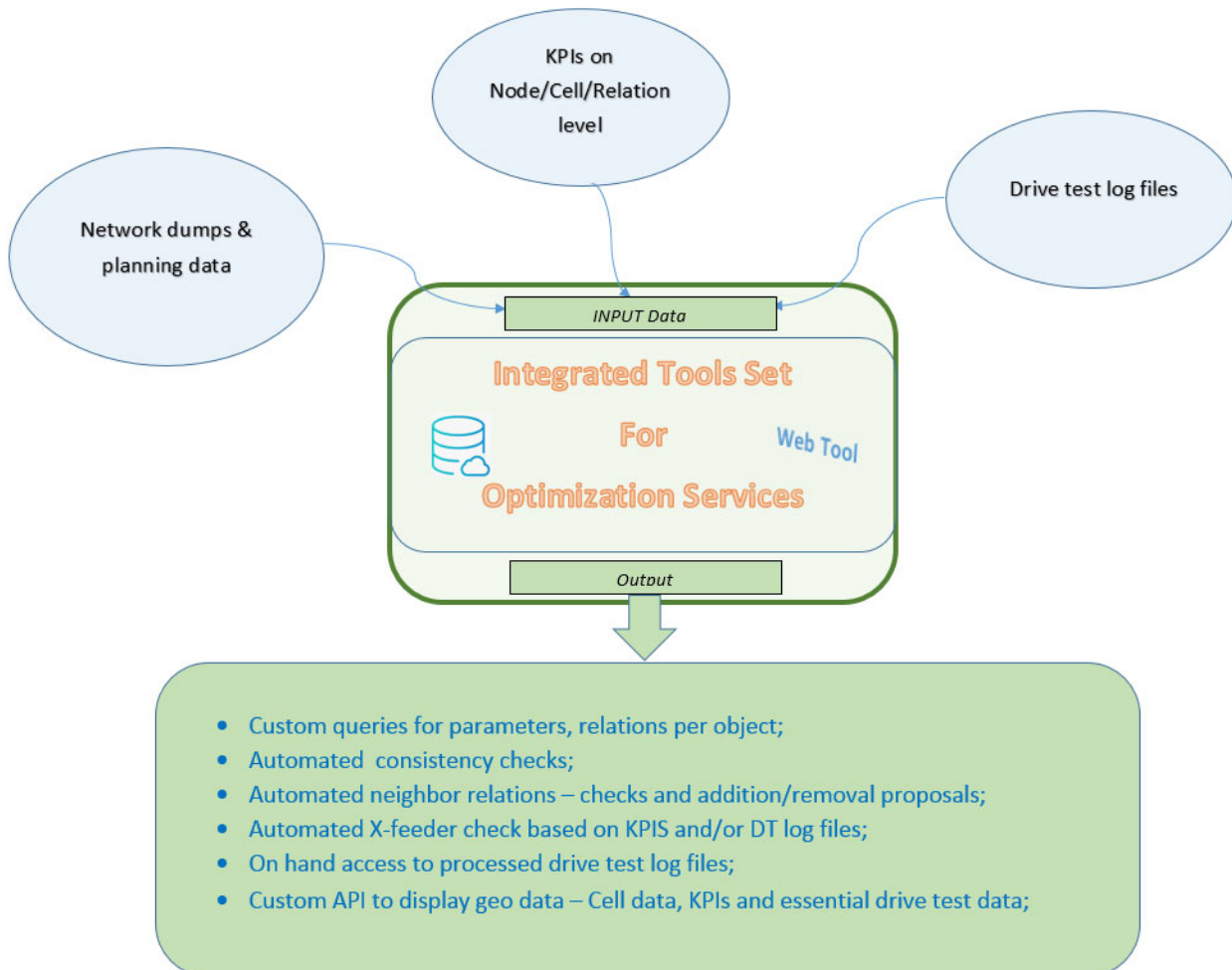


Integrated Tools for Network Monitoring and Optimization



Examples of some of the integrated tasks are presented below with plots and brief description

1. Cells represented on map with various statistical data related:

1.1 Cell/neighbor statistics on map:

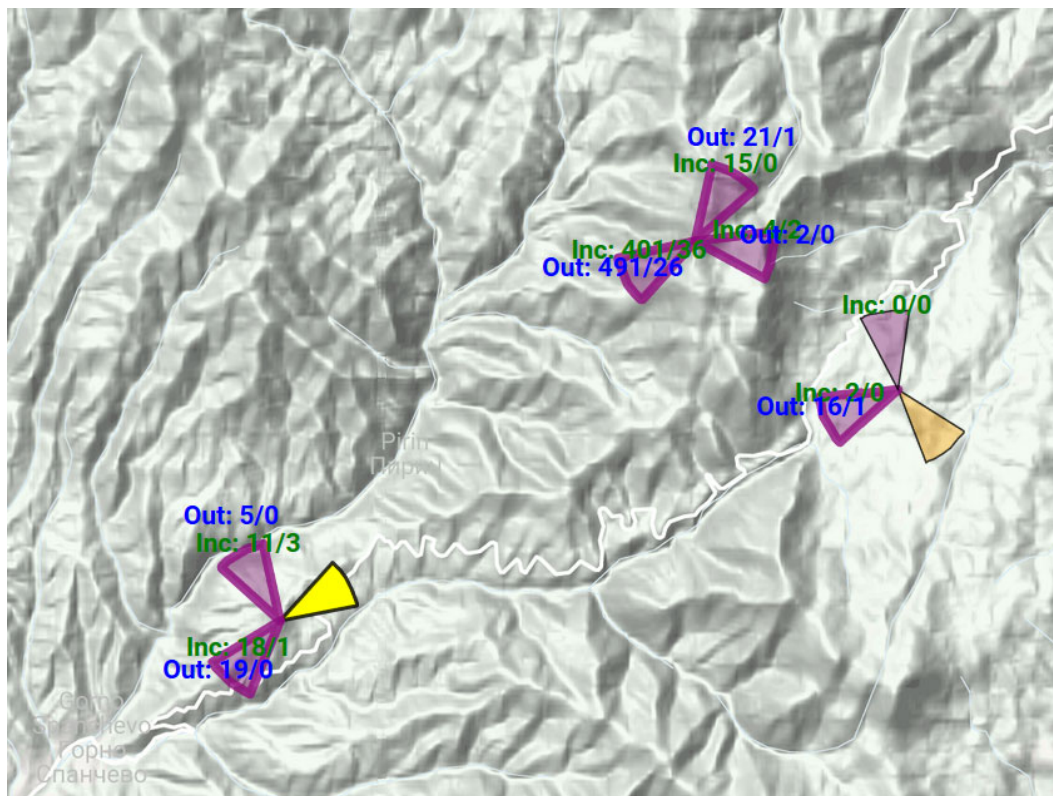


Fig. 1.1 – Handovers attempts vs failures per neighbor relation and statistical window

1.2 Custom KPIs plotted on map:

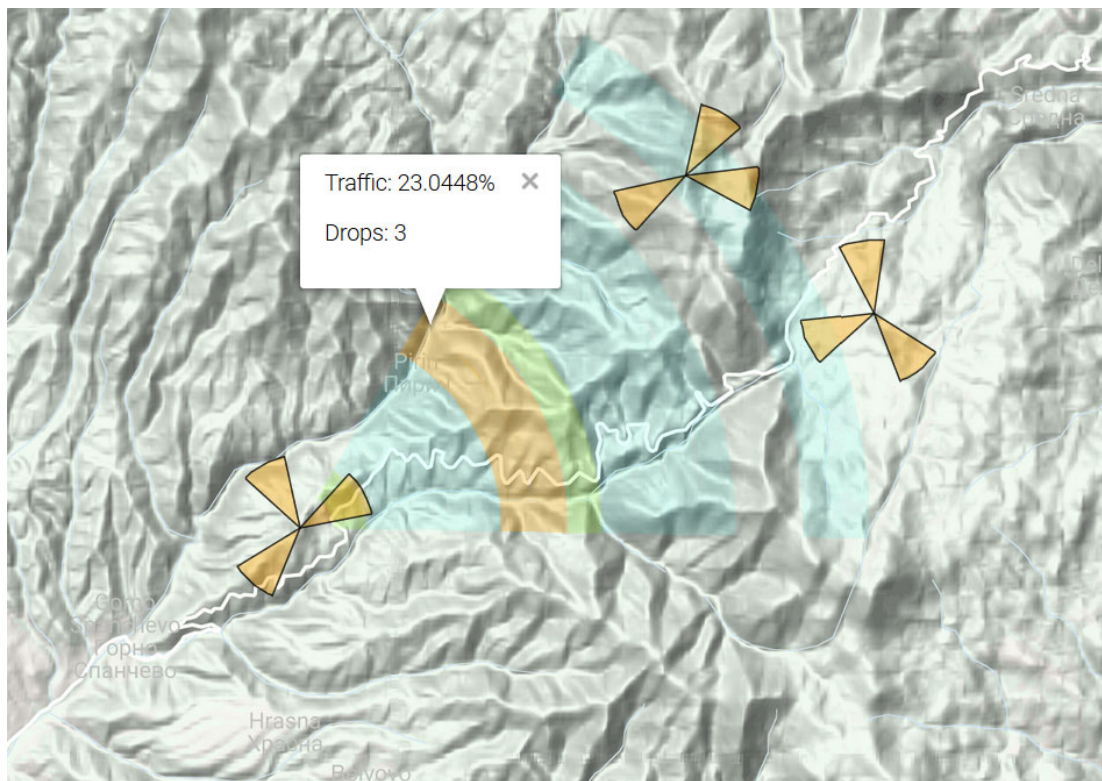


Fig. 1.2 – Statistics for traffic and drops per distance represented on map

1.3 KPIs along with terrain profile:

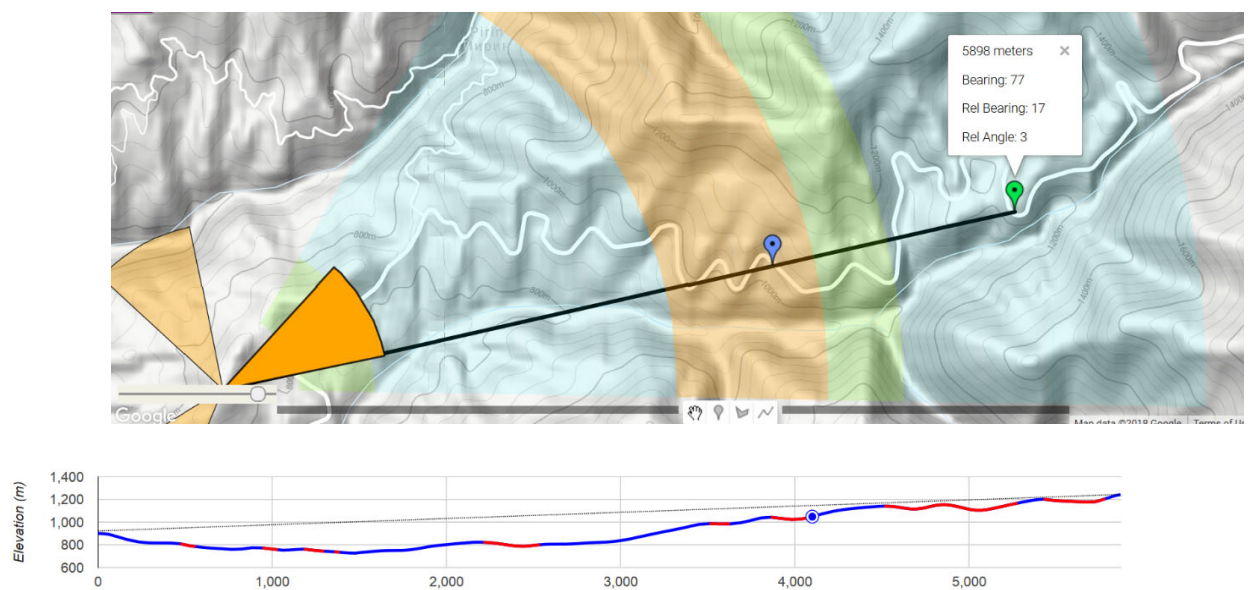


Fig. 1.3 – Line of Sight and bearing data in a single click

2. Drive test log data post-processed, stored and analyzed in database with visualization on map

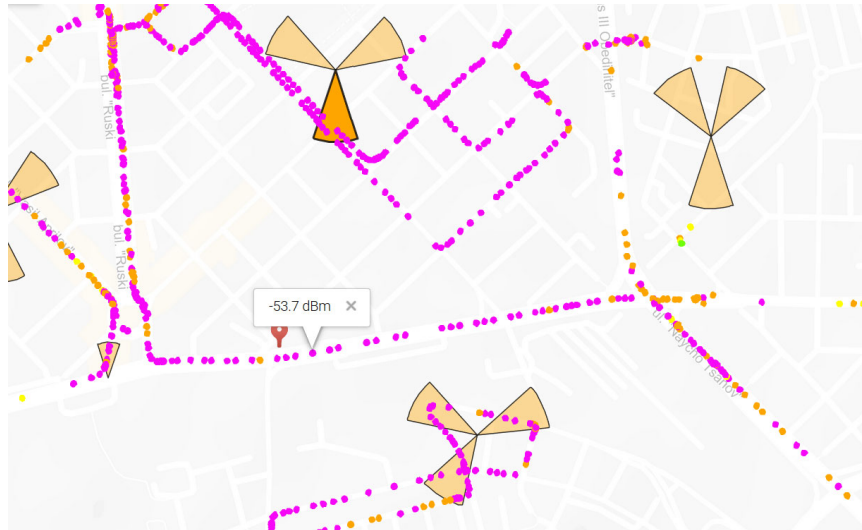


Fig. 2.1 – Network levels with geo-location and mapped to serving cells based on cells' distinct attributes from the date of measurement /BCCH-BSIC, PSC, PCI and distance/

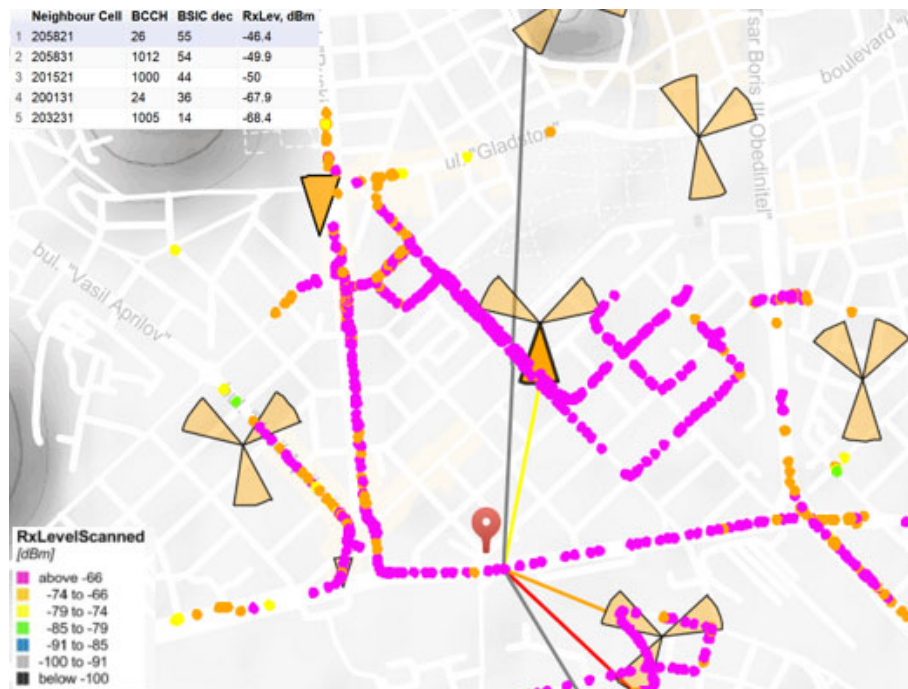


Fig. 2.2 –Top 5 cells in each measurement sample represented on map with distance and levels measured

3. Drive test data summary and automated analysis:

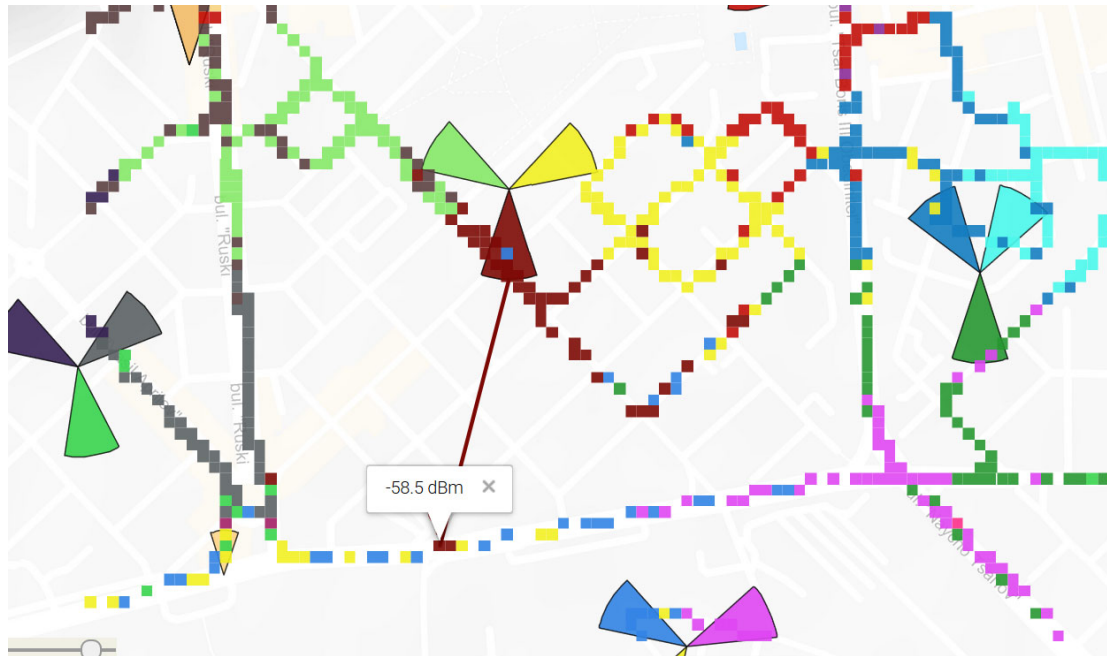


Fig. 3.1 –Best server per location colour-coded;



Fig. 3.2 –Straightforward identification of zones with given quality ranges /Ec/Io, CINR/

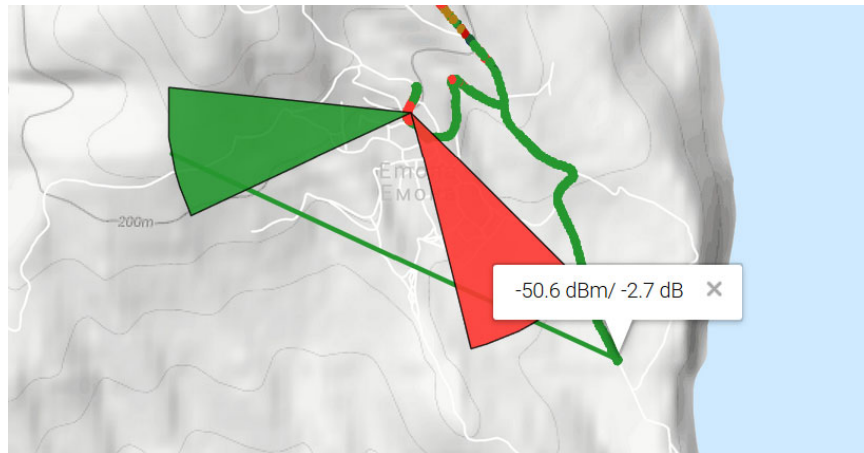


Fig. 3.3 –Automated cross-sectors identification

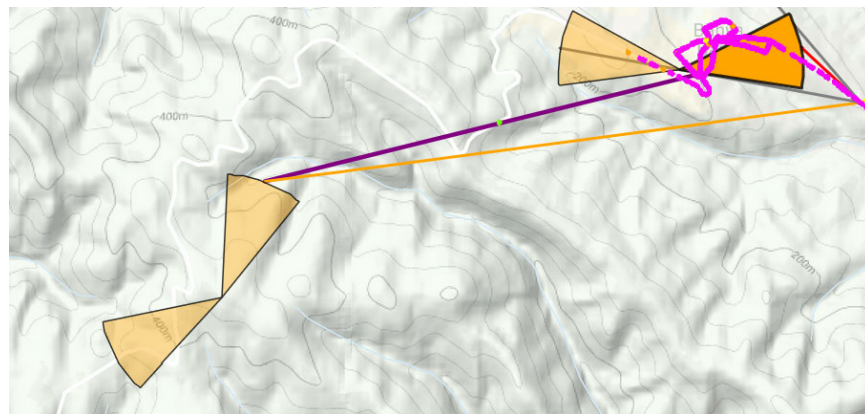


Fig. 3.4 –Automated missing neighbours identification

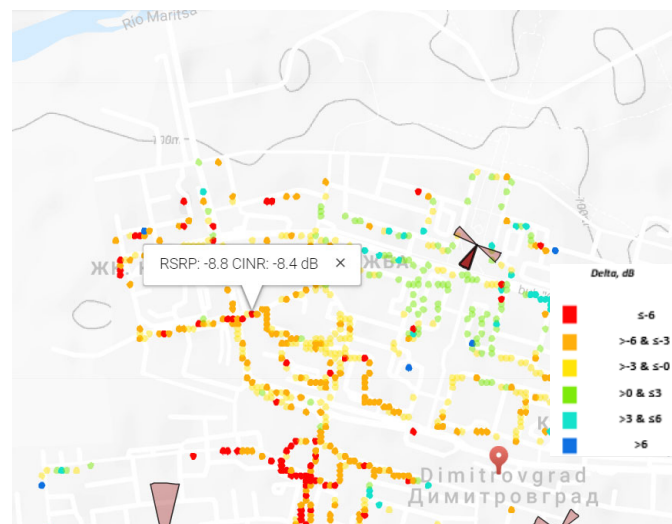


Fig. 3.5 – Delta values for pre-post drive test measurements

4. Benchmark and comparison reports easily prepared for desired location

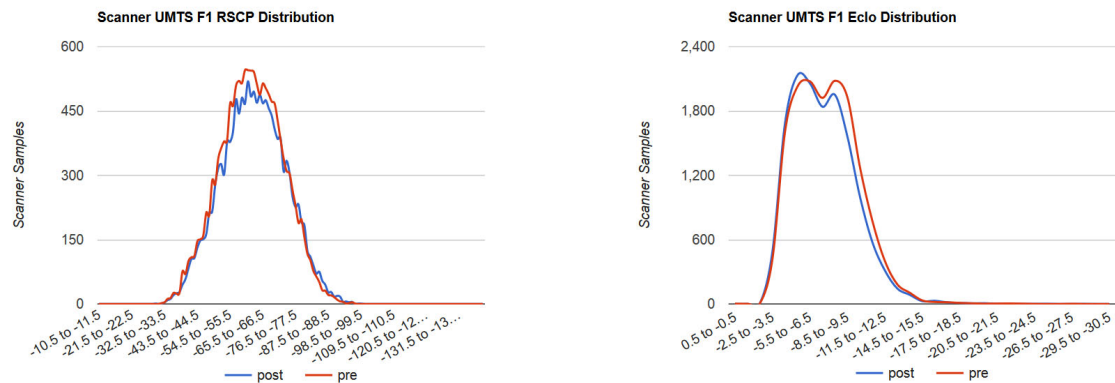
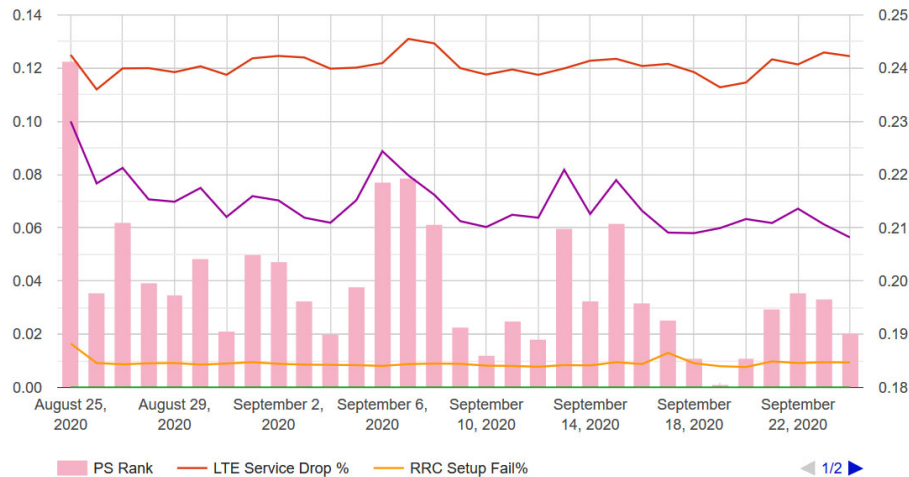


Fig. 4.1 –Statistical representation of different data arrays

5. Plots for KPIs on cell or cluster level



RNO_LTE_User_Throughput_DL_Ave(Mbps) Cell: Example

