Genesis

localization and control of problems in the transport network

Problem

Lack of bandwidth, degradation of line, high utilization of equipment are causes of deterioration of the transport network and, as a consequence, deterioration in the quality of services

The subscriber speed in the 4G network is very sensitive to packet loss rate and delay.

To maximize service quality transport network should have minimum losses and delays.
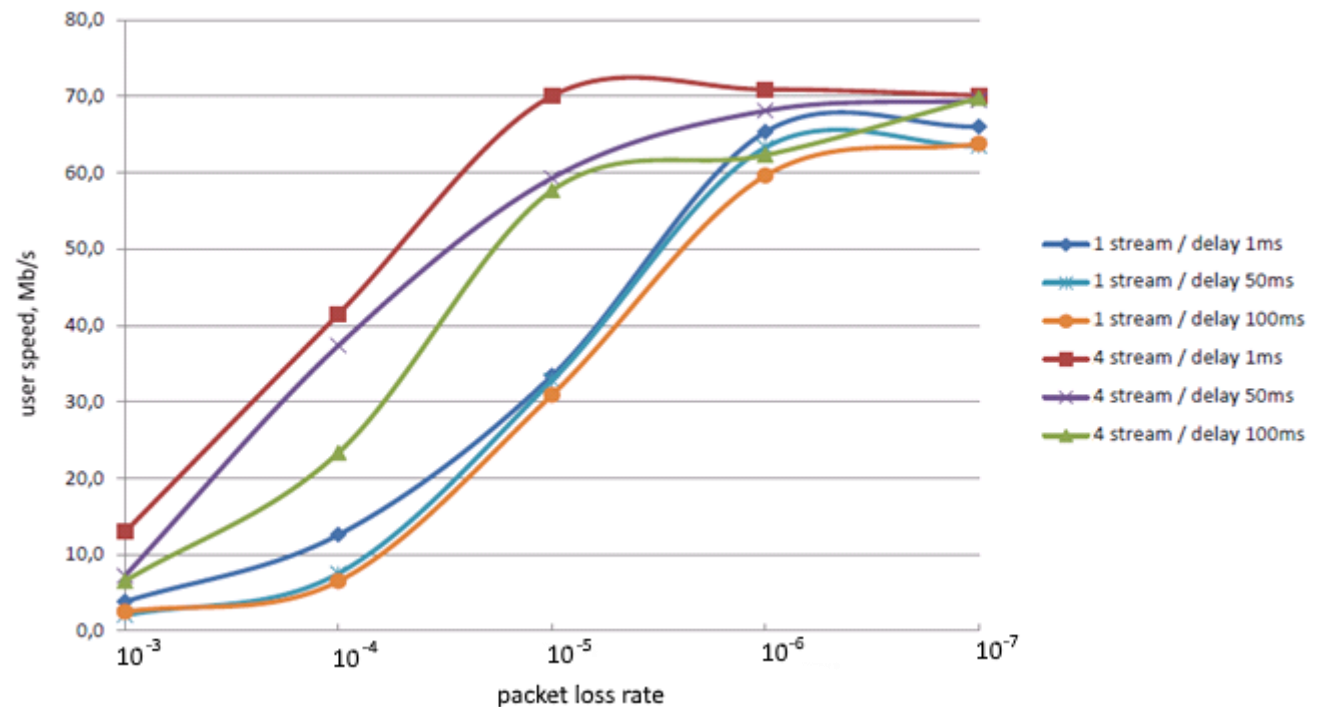
The traditional solution

Often problems in the transport network can be identify and remove only when they have a significant influence on the performance of the base stations (BS).

Each problem is considered in isolation, which does not allow to see the state of the transport network as a whole. To find the causes of the problem it's necessary to conduct a full analysis of the way the BS inclusion.

It's inefficient and expensive.

Genesis can change it!

Genesis solution

Merging statistics of BS (counters IUB LIMITINGS, GTP LOSS) or collected with tools for analysis of service quality (eg TWAMP), with the transport network topology allows Genesis to make a quick analysis of the existence of problems and their causes. Not only to each BS - also on the entire network.

Genesis will allow to eliminate most of the problems before they will have a marked influence on services.
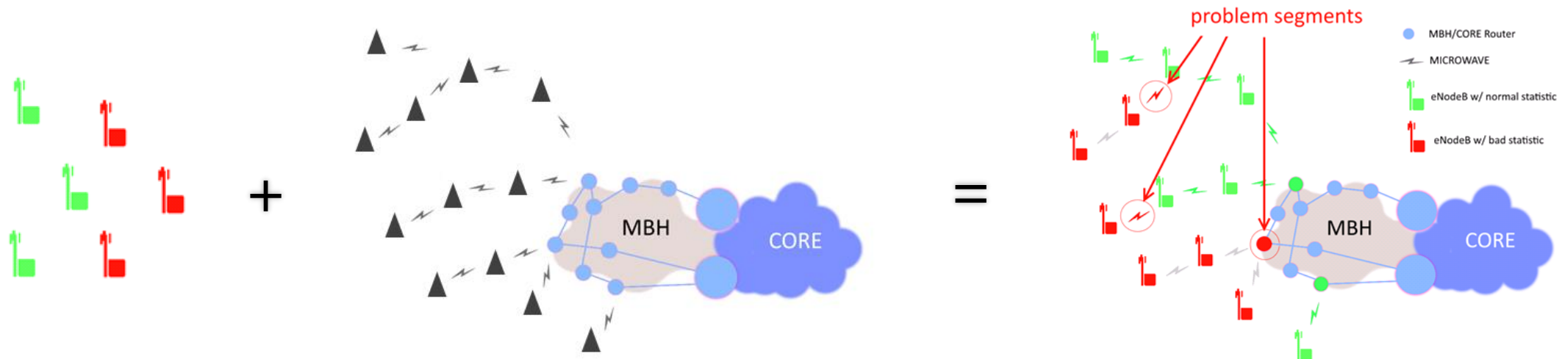
Advantages of Genesis

○ Short time of systems integration

○ Fast determination of the transport problems

In 75% of cases it is possible to eliminate the problem without additional costs, and only 25% with the required equipment modernization.

○ The ability to fix the problem for department with a time frame, comfortable control of troubleshooting

○ Ability to analyze the hourly statistics, TOP problematic BS (daily or weekly).

○ Possibility of on-line express analysis of transport network segment quality

○ User-friendly interface

Experience of using

Currently, Genesis is in test operation on the network of one of Russian mobile operators in St. Petersburg.

Downlink 4G, mbps

Genesis ON

Operator 1

Operator 3 (Genesis customer)
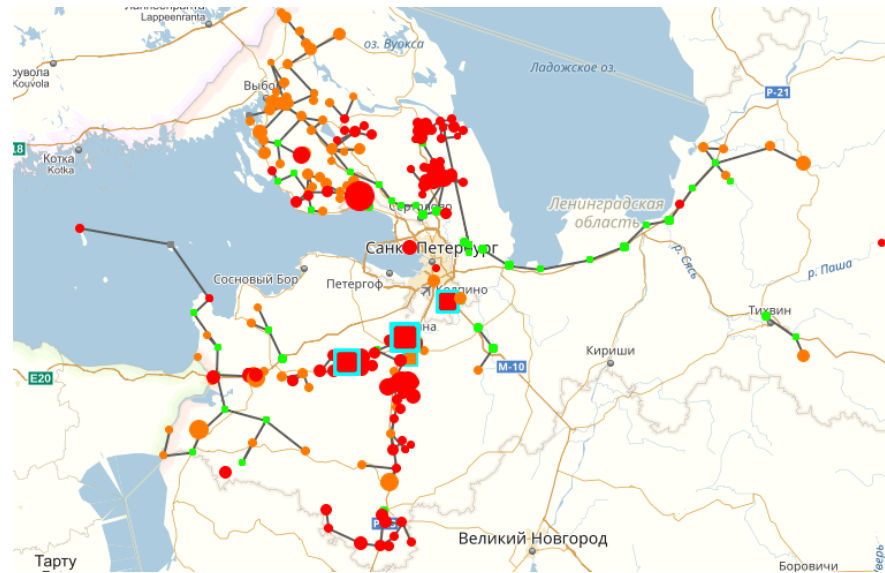
18,2

16,8

15,3

Operator 2
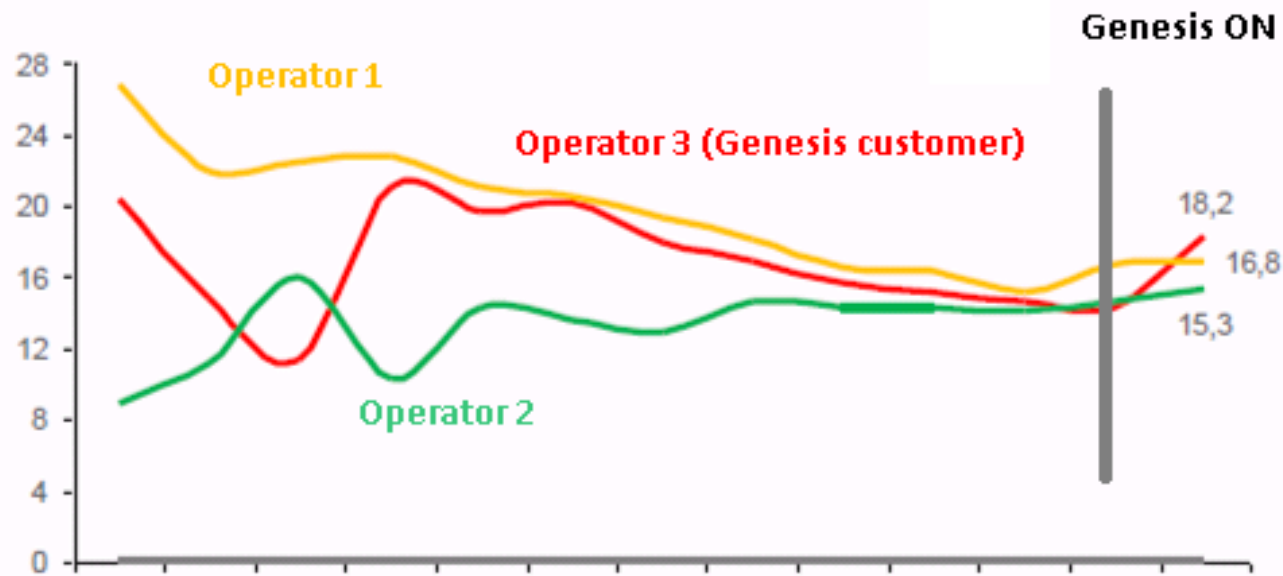
The graph shows a significant increase in the average 4G speed after starting the Genesis (SpeedTest statistic).

Experience of using

Graphical display allows you to group problems.

In this example, during the operational analysis for 20 minutes 5 major causes of degradation of quality of service identified. To eliminate 4 of 5 reasons not required network upgrades - just the adjust the parameters of the existing equipment.

Brief description of the user interface

The user interface is designed to maximize comfort and performance.

Main sections:

- Top problems
- Cartographic representation of top problems
- View item details
- Control of the process of resolving problems

Brief description of the user interface / TOP problems

This section allows you to browse through all the BS, with deviation in the parameter that characterizes the quality of the transport layer. The division into HiPrio and NormalPrio allows to focus on the most efficient stations.

You can make a selection by departments responsible for the elimination of the problem.

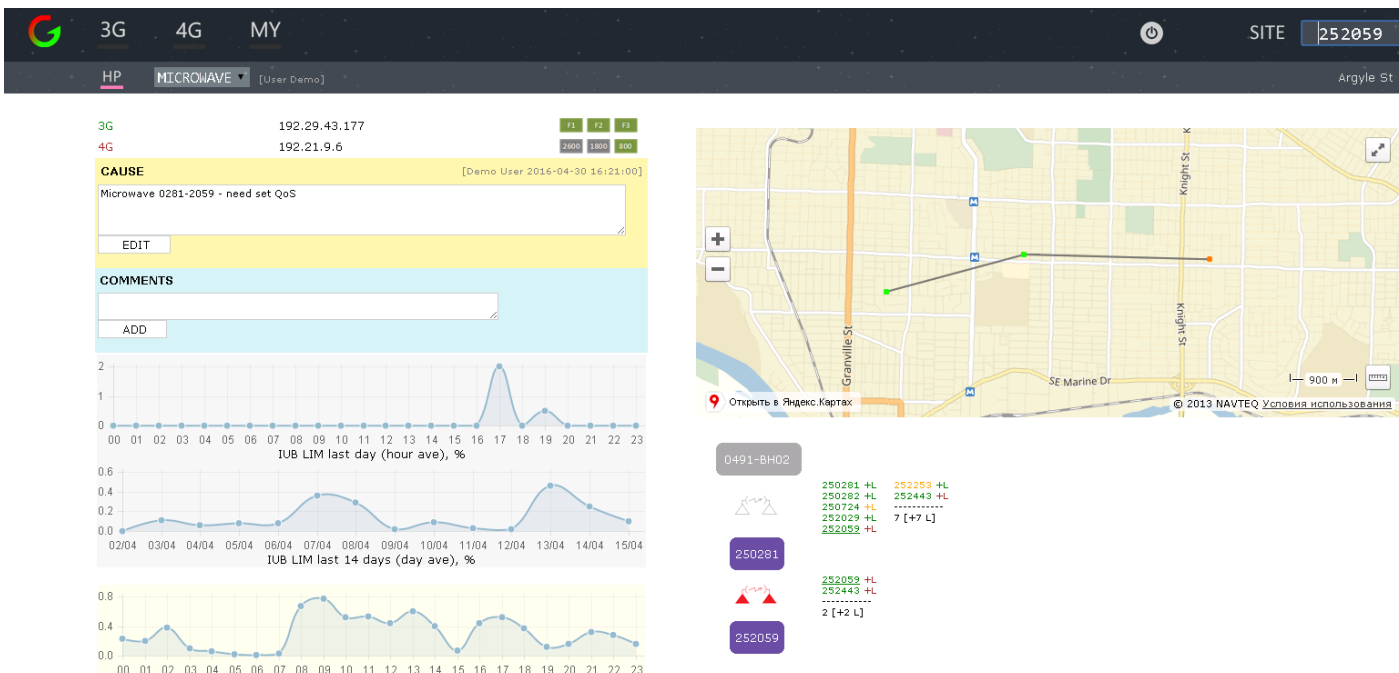# Brief description of the user interface/ Map

This section allows you to evaluate the geographical distribution of problems, often at this stage it is already possible to uniquely identify the cause of the degradation of performance.
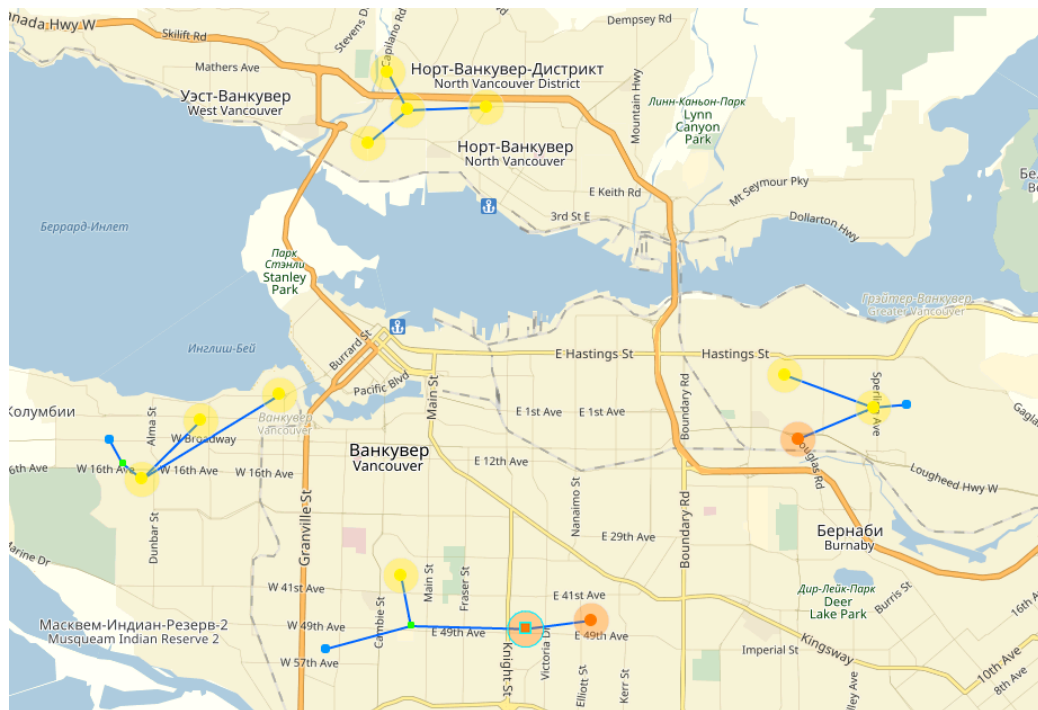
Brief description of the user interface/ Element Information

The main section of Genesis which allows to determine the cause of the degradation of the quality of service in most cases. Has a field displaying statistics, the path switching-on of element with displaying all the elements included in a similar manner.

In most cases Genesis is able to determine the problem area.

The fields "Cause" and "Comments" allows to track history of problems. Also it is possible to fix elimination of the problem for the specific department.

Brief description of the user interface/ Control

This section allows you to control the process of troubleshooting.

Each problem is assigned to the department.

Easy navigation allows you to keep track of problems which nature is variable in time

Demo

Visit the online demonstration of the system operation

http://ghostdata.net/demogenesis/

Login: demo
Password: demo

nikita.puglachenko@gmail.com