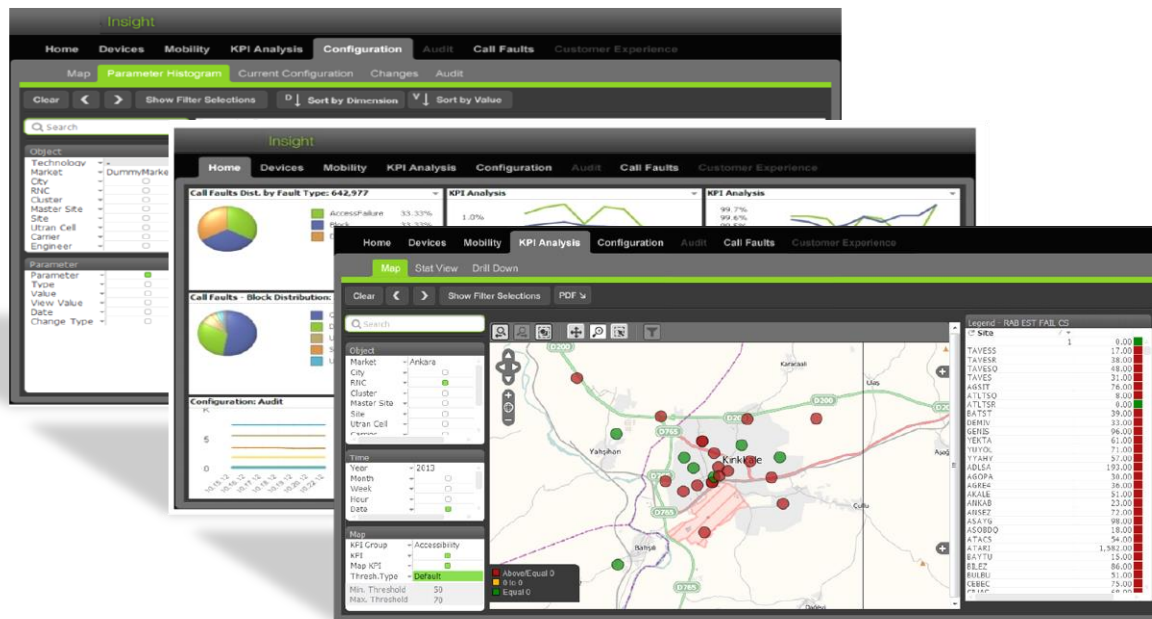


# Insight



## GAIN HOLISTIC INSIGHTS OF YOUR RAN PERFORMANCE AND SUBSCRIBERS BEHAVIOR

On the one hand, the amount of data processed by engineering teams is exponential, and this expansion will not be tamed with the rolling out of LTE. Quite the contrary.

On the other hand, the management and maintenance of network performance consume the greatest amount of resources, and are keys to ensuring the best possible services to subscribers. With the data glut, these resources are expected to grow proportional to the complexity and quantity of information they seek to handle.

TEOCO's INSIGHT provides network and subscribers analytics dashboards to power holistic insights into performance and behavior. By presenting all the necessary information over different dashboards, **INSIGHT compresses the knowledge collected from the network and makes it more accessible. It also allows for a multi-dimensioning approach based on its associative logic, correlating between the different dashboards.** Hence, engineers can focus on the issues that matter, and visualize them to unveil patterns and connections.

Overall, INSIGHT enables you to:

- Easily identify most severe issues for your subscribers, using subscriber-centric analytics
- Target troubleshooting for optimal results in no time with performance analytics
- Focus resources on where they are most needed

INSIGHT provides five different dashboards that are customizable:

- Mobility Dashboard
- Devices Dashboard
- Call-Fault Dashboard
- KPI Analysis Dashboard
- Configuration Analysis & Audit Dashboard.

Visualization

Investigation

Performance Analytics

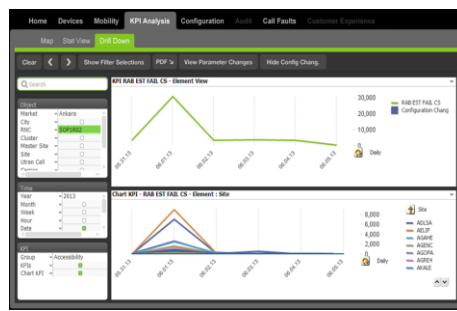
Subscribers Analytics

Correlation

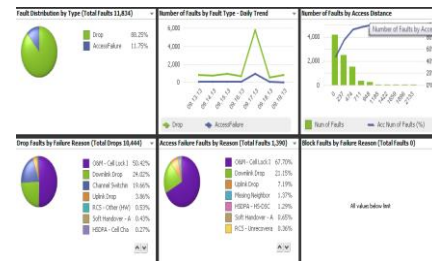
Customizable



**Home Page** provides a holistic view of the network, and easy drill down capabilities



**KPI Analysis dashboard**



**Call Fault dashboard – Root Cause Analysis**

## INSIGHT USE CASES

### Use Case 1: Detection & Optimization of missing neighbors based on geo positioning algorithm using the Mobility & Call Faults Dashboards correlation.

This use case reveals the correlation between mobility and Call Faults dashboards. Thanks to its capability to link the same query filters across dashboards, INISGHT enables multi-dimensional problem drill down. In this case, it grants the user the possibility to view time and drop reasons correlated with the associated KPIs and their geo location.

In our example, the users see that there are missing neighbors within a specific radius from the site investigated on the mobility dashboard. The call fault dashboard allows users to focus on specific faults, and also shows that calls are dropped within the same radius. Its root cause analysis view confirms that the missing neighbors are the cause for the dropped calls.

### Use Case 2: Investigating the root cause of failures, using an associative analysis approach.

Using the KPI analysis dashboard, RNC level performances can be seen over different views and multiple KPIs can be selected by the users who can drill down to sites, sectors, or hourly resolutions.

To reach a higher level of detail, the user can turn to the call faults dashboard to look into performances at the log based KPIs level and see root cause analysis by identifying faults distribution for the detected sites, and their dominant failure cause.

### Use Case 3: Investigating network-wide root cause of failures for UE model and IMSI Investigation

Navigating from the KPI dashboard showing the PS retainability at site level, the user can look into the call faults dashboard for deep analysis and view log-based statistics, top worst IMSIs & UE models, or establish cause distribution distributions. The dashboard also comprises IMSI and model filtering options, which reveals that only a few IMSIs are causing most of the problems and that two specific models contribute to most of the failures.

To verify whether the problem is only local or generalized to the whole network, the devices dashboard shows network wide analysis and reveals that channel switching is the major release cause at the network level. It also reveals that channel switching seems to differentiate these two models from the rest of network in terms of DR (Drop Rates).