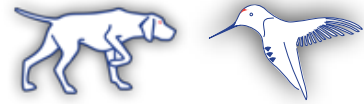


Use Case Name:
Proactively managing end-to-end 2G/3G/4G RAN with NORTH-I and ABID



Summary

A Turkish mobile operator was experiencing RAN (Radio Access Network) quality issues and problem resolution times that exceeded its business, regulatory and customer experience objectives. Thus, the operator was challenged to radically improve its level of service but with given the few resources available to accomplish this business imperative, it became imperative to use flexible, field-tested tools with an experienced partner.

Situation

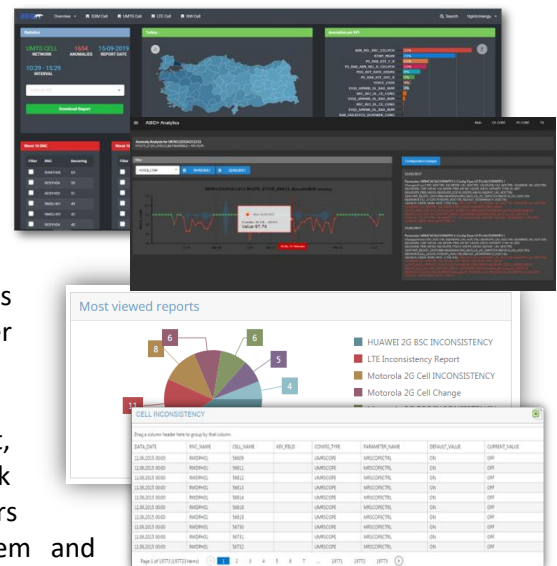
The operator had deployed disparate performance, configuration, and alarm management systems over time as the network evolved and new technologies and equipment vendors were introduced with 30K+ systems and 10+ vendors

Performance, configuration changes and alarm data were not harmonized and therefore could not be integrated into an end-to-end view. Furthermore, the performance datum was not available until the next day, delaying problem identification and root cause analysis.

Solution and Benefit

When the operator undertook the project to replace its entire radio access and core mobile network infrastructure with new vendor equipment, it also took the opportunity to upgrade its legacy network performance management system to TTG Int's NORTH-I™, CMEx™ (Configuration management tool by TTG Int) and ABID™ (AI based Anomaly Detection Tool by TTG Int). They became able to manage proactively and correlate data to meet their business objectives across multiple vendor and domain network — all at a lower Total Cost of Ownership (TCO).

With NORTH-I™, CMEx™ and ABID™ tools of TTG Int, performance, configuration, and correlated network alarm data across all technologies and equipment vendors were collected and harmonized into a single system and

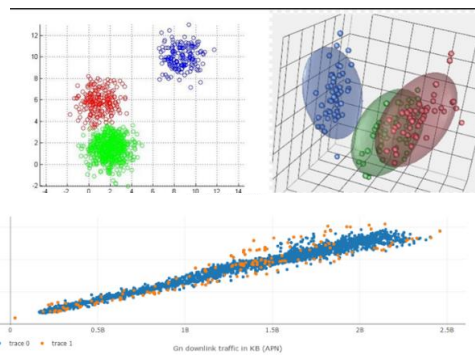


immediately made available to operations and engineering teams.

The operator used NORTH-I™, CMeX™ and ABID™ to monitor the health of its network on a regular basis, to prioritize resolution actions and to perform sophisticated correlation, trend analysis that could prevent performance problems. As part of the operator’s daily network health monitoring process, operation engineers receive scheduled Key Performance Indicators (KPIs), identified by region, the worst performing elements in their network with custom-defined time functions and formulas to compare current data with previous time periods. The engineers are also able to view and compare past historical data with new information through NORTH-I™, CMeX™ and ABID™ data repositories.

By CMeX, North-I & ABID You Can :

Implement a centralized management system: Collecting and harmonizing data from multiple vendors and technologies enables the operator to gain a **comprehensive view** of the network and improve problem identification and resolution times.



Manage your Inventory: By correct inventory and asset management, the operator not only reduces Capex and Opex but also reduces operational downtimes with correct planning and route **optimization**.

Use data analytics and trend analysis: By analyzing data from the network and using AI/ML models, the operator can pinpoint anomalies to figure out potential issues taking **preventative** measures for problem avoidance.

Enhance training and knowledge sharing: Ensuring that all team members have a strong understanding of the network and how to use the management tools can improve **efficiency** and reduce resolution times.

Overall, implementing a centralized management system armed with AI/ML engines helps the operator improve its network performance, reduce problem resolution times, and meet its business and customer experience objectives.