NOC Automation

Analyzes real-time data to anticipate network issues

TUPL | Operations made simple with AI

NOC Automation

Towards zero-touch automation in your network operations

The solution

AI-Based Automated Network Operations Center.

While Mean Time Between Failures (MTBF) is improving, unexpected equipment failures still occur. As networks grow more complex and customers expect uninterrupted service, meeting these demands requires a new approach. Despite technological advancements, significant manual and repetitive work is still required to address critical alarms.

Tupl's NOC Automation solution addresses this challenge with the power of AI.

After integrating relevant data sources, Tupl ML toolkit enables the extraction of the existing root causing information, performs commonly identified automated actions, and creates tickets with detailed analytics.

Key benefits

Extracts best practices and turns them into digital knowledge.

Improves Tier-2 and Tier-3 performance and efficiency.

Consistently analyzes more data than humanly possible for the most accurate decisions.

Executes agreed actions automatically and creates work orders with deep analytics. Powerful, analytical tools: multi-dimensional radar, top offenders, trends, geographical correlation map.

Reduces Tier-1 work to absolute minimum.

Use case examples

Service impacting issues prioritization

Automatically resolve self-clear tickets so NOC Engineers can focus on resolving service impacting issues.

Site Reset automation

Monitor all open tickets for reset candidates, execute the reset, monitor site back up and validate the ticket resolution.

Power-Related Issues

Automate the power-related problems process.

Standardized Reporting

FOPS troubleshoots with trusted and consistent documentation about the problem.

Transport

Automatically resolve RAN alarms-related tickets coming from transport issues.

E-Bonding

Automatically create detailed incidences in 3rd party vendors' ticketing systems.

Environmental Issues

Auto-resolve tickets due to extreme weather causing network equipment to trigger alarms.

Key features

Keeping network running at optimum performance levels for end customers, leveraging TuplOS AI Engine.

Tupl's ML Toolkit is based on open-source Big Data and Machine Learning libraries. It provides the capability to train and run multiple-stage root cause analysis, action recommendation models, and selected automated actions.

Multiple data source integration: multiple data sources can be easily correlated and processed for complex problems through TuplOS data and cloud architecture, ensuring the most accurate decisions and prioritization.

Action Engine: certain action categories (such as equipment restarts) can be automated to achieve maximum efficiencies and recovery speeds.

Trouble ticketing automation module: Reduces errors, missing data, and inconsistencies in work orders to field engineers.

Business impact

>90% classification accuracy - powered by both supervised and unsupervised learning.

100% consistency - operator can draw network-level conclusions with confidence.

Up to 100% time savings in Tier-1 operations, and estimated 50% efficiency gains in Tier-2 and Tier-3.

Discover unseen issues and patterns with unsupervised learning.

Faster field actions thanks to more systematic processes and quick time to resolutions.