



NOC Automation

Automating NOC processes
for incident handling



NOC AUTOMATION

AI-driven network operations

NOC Automation (NOA) is an AI-powered solution designed to revolutionize how network operations teams manage network performance and incident resolution.

By automating the diagnosis, and resolution of known network issues, NOA reduces manual interventions, accelerates response times, and enhances operational efficiency across the entire network operations lifecycle.

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 customer expectations rise, meeting these demands requires a new approach. Despite technological advancements, significant manual and repetitive work is still needed to address critical alarms. Tupl's NOC Automation addresses this challenge with the power of AI. Once relevant data sources are integrated, Tupl's ML toolkit extracts root cause information, performs automated actions, and generates/updates tickets with detailed analytics.





KEY BENEFITS

Boost Network Reliability



NOC Automation strengthens network reliability by resolving issues the moment they arise. Leveraging automated diagnostics and AI-driven workflows, it ensures faster response times, minimizes service disruptions, and delivers a more consistent customer experience—ultimately reducing churn and increasing satisfaction.

Scale Operational Expertise with AI



By capturing and digitalizing engineering best practices, NOC Automation transforms them into scalable, AI-driven processes. It continuously learns from historical data and near real-time events to deliver consistent, expert-level decisions across all network operations.

Streamline Engineering Workloads



NOC Automation significantly reduces the manual workload for Tier-1 teams and improves the efficiency of Tier-2 and Tier-3 operations. It automates repetitive tasks, prioritizes critical incidents, and enables engineers to focus on high-impact activities.



KEY FEATURES



Automated Ticket/Alarm Handling

Automated handling of incident tickets/alarms to assist the NOC team.



Alarm Correlation & Triage

Uses machine learning to correlate alarms, site data, and maintenance events—automatically classifying and prioritizing incidents for faster, more accurate resolution.



Automated Actions

Performs automated corrective actions to reduce manual interventions. These include executing remote resets, resolving self-clearing alarms, and escalating chronic issues with contextual analysis. Additionally, other manual NOC processes can be streamlined and automated to improve operational efficiency.



BUSINESS IMPACT

90% classification accuracy

powered by supervised and unsupervised learning

Up to 90% reduction in MTTR for key ticket categories and ~50% efficiency gains in Tier-2 and Tier-3.

100% consistency

in diagnostics, enabling confident, network-wide decisions.

Faster field actions

through systematic processes and reduced time to resolution.



USE CASE EXAMPLES

Automatic resolution of tickets

Automatically resolve ticket categories covered by NOA so NOC Engineers can focus on resolving other service impacting issues.

Power-Related Issues

Automate the power-related problems process.

Transport

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

Environmental Issues

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

Site Reset Automation

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

Standardized Reporting

FOPS troubleshoots with trusted and consistent documentation about the problem.

E-Bonding

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