Even though MTBF values keep going up, equipment can fail unexpectedly. Coupled with ever growing network complexity and customer demand for uninterrupted services, the challenge of meeting expectations is only going to get worse without a new way of doing things.

Many rule-based solutions have been made for basic alarm correlations, but significant manual, repetitive work still happens in order to take appropriate actions against critical alarms. To make matters worse, actions are done too late, or cause organizational stress 24/7 for hundreds of people in network operations.

Tupl NOC Automation resolves this dilemma with the help of AI. After integrating relevant data sources, Tupl ML toolkit enables the extraction of existing rootcausing knowledge, performs commonly identified automated actions and creates trouble tickets with detailed analytics.

**Key Benefits**

- Extracts best practices and turns them into digital knowledge
- Can analyze more data than humanly possible for the most accurate decisions, consistently
- Executes agreed actions automatically and creates workorders with deep analytics
- Reduces Tier-1 work to absolute minimum, improves Tier-2 and Tier-3 performance and efficiency

Result: maximum accuracy, consistency and speed for keeping network running at optimum performance levels for end customers.

**Key Features:**

- **AI Engine:** Based on open source Big Data and Machine Learning libraries, Tupl’s ML Toolkit is the core of NOC Automation, providing the capability to train and run multiple-stage root cause analysis and action recommendation models, all the way to selected automated actions.
- **Multiple data source integration:** Through TuplOS data and cloud architecture, multiple data sources can be easily correlated and processed for complex problems. This enriches and improves current NOC processes for the most accurate decisions and prioritization.
- **Action Engine:** To achieve maximum efficiencies and recovery speeds, certain action categories (such as equipment restarts) can be automated with Tupl Action Engine.
- **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** due to more systematic processes and quick time to resolutions.

Contact Tupl representatives for details.