

Use Case:

A New Era of Network Reliability with Proactive Fault Management

Problem Statement:

The increasing complexity and diversity of modern networks, involving multiple vendors and technologies, lead to structures prone to faults and inconsistencies.

As alarms grow in volume, manual fault handling becomes time-intensive and error-prone, creating delays that impact service quality. Quickly identifying root causes, analyzing fault impacts, and prioritizing critical issues are essential to ensuring service continuity and minimizing disruptions.

Solution Overview:

TechNarts' fault management system offers a comprehensive, automated solution to minimize network disruptions and ensure service continuity.

- **Instant Root-Cause Analysis:** Pinpoints underlying fault causes proactively, often before they impact end-users. Alarm enrichment provides a 360° view of the network, services, and customers.
- **Impact Analysis:** Assesses consequences of scheduled and unscheduled outages, enabling effective prioritization and risk mitigation.
- **Closed-Loop Automation:** Manages the full fault resolution lifecycle (detection to closure) reducing manual intervention and improving MTTR.
- **Proactive Notifications & Automated Workflows:** Sends timely escalations to NOC/SOC teams and automates trouble ticket creation and fault escalation.
- **Intuitive Dashboards:** Real-time monitoring with insights into outages by location, severity, and key metrics for fast, precise action.
- **AI/ML-Driven Analytics:** Uncovers patterns and predicts potential issues, enabling proactive maintenance and improved customer satisfaction.

About TechNarts

TechNarts is a leading **OSS provider** with deep expertise in telecom software **since 2007**. Through its **NART OSS Suite** product family, it delivers modular, future-proof solutions for **Resource Management, Network Assurance and Network Fulfillment & Orchestration**. Its systems align with **TM Forum's ODA and Open APIs**, helping operators boost service reliability, optimize resources, and accelerate digital transformation.

Result:

By integrating all fault-related processes into one seamless platform, the solution minimized disruptions, improved service quality, and reduced operational costs.

- **1 hour → 1 minute** first response time to outages.
- **99.96% fault elimination** through root-cause analysis.
- **88% less labor cost** for network operations.
- **75% maintenance cost reduction** by directing teams to exact fault points via root-cause analysis.
- **42% less effort** required for network maintenance, optimization, and troubleshooting.
- **~30% drop in NOC workload** through proactive notifications and automated work orders.