

Use Case:



FTTb Network Optimization

with Inventory and Topology Data

Problem Statement:

A telecom operator in Türkiye, managing a FTTb (Fiber to the Building) network, needed to raise both the efficiency and the accuracy of its network data.

The operator aimed to reduce OPEX and CAPEX by improving the consistency and accuracy of network data across all layers, automating the reconciliation of network inventories to keep records up to date, and minimizing service disruptions and delays through optimized IP address allocation and network planning. At the same time, "open" lines without spares were creating a service outage risk, and rings that failed to comply with the 8 and 59 rule were leaving HLD compatibility gaps across the network.

Solution Overview:

TechNarts addressed these challenges by combining automated discovery, reconciliation, and predictive planning across the FTTb network.

- **Automatic Discovery & Reconciliation:** Regular automatic discovery of the FTTb network kept topology data reconciled with inventory records, while live monitoring identified misaligned or improperly utilized network elements.
- **Risk Flagging:** "Open" lines were flagged as potential risks, and non-compliant rings were automatically flagged as well – TechNarts' Resource Discovery and Reconciliation tool revealed that 9% of the network was incompatible with HLD standards, prompting targeted remediation efforts.
- **Predictive UPS Planning:** Detailed inventory and topology data from ADR & NIM identified critical network areas requiring UPS support, prioritizing areas prone to service interruptions while flagging non-critical areas where UPS usage could be reduced.

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:

The operator achieved a more accurate, resilient, and cost-efficient FTTb network.

- **Faster Issue Resolution:** End-to-end visibility cut detection and resolution time, lowering SLA and quality costs by 10-15%.
- **Fewer IPTV Quality Issues:** Fixed HLD compatibility issues, with ring optimization saving 5-10% in design and upgrades.
- **Lower Infrastructure Costs:** Strategic open line allocation cut hardware costs by 10-15%.
- **Improved Service Continuity:** Targeted UPS allocation cut UPS investment by up to 25%, energy/maintenance costs by up to 20%, and repairs by 10%.
- **Reduced Manual Effort:** Automation cut audit workload by up to 25% and admin costs by 10-20%.