

Use Case:

IP and VLAN Management Optimization

for Corporate Services

Problem Statement:

A leading CSP faced challenges in managing IP and VLAN resources for its corporate customers.

On average, 2-3 IP conflict incidents per quarter disrupted operations and required significant time to resolve. Suboptimal IP allocation led to resource waste, outdated IP-customer mapping increased service interruption risk, and inconsistent management hindered BTK compliance reporting. Lack of proactive monitoring for redundancy, load balancing, and VLAN configurations further impacted service reliability.

Solution Overview:

The CSP implemented an IP and VLAN management tool to optimize resource utilization and enhance network reliability.

- **Automated IP Conflict Resolution:** Identified and resolved potential conflicts before they impacted service delivery, reducing incidents to zero.
- **Streamlined IP Allocation:** Extended the longevity of IP pools through measurable allocation savings.
- **BTK Compliance Reporting:** Generated secure control reports and accurate data to meet compliance standards.
- **IP-Customer Mapping:** Continuous updates ensured accuracy and reduced service discrepancies.
- **Fiber Site Monitoring:** Monitored redundancy, optimized port-based load balancing, and maintained consistent VLAN configurations.

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 reliable, compliant, and efficiently managed IP and VLAN environment.

- **Zero IP Conflict Incidents:** 2-3 quarterly incidents entirely eliminated, ensuring uninterrupted service.
- **Optimized IP Allocation:** Saved resources, deferring the need for additional IP pools.
- **Improved Compliance:** Accurate BTK reporting enhanced compliance standing and operational transparency.
- **Reduced Customer Complaints:** Reliable IP mapping increased satisfaction and reduced complaints.
- **Increased Efficiency:** Automation reduced manual oversight, saving time and improving performance.