Use Case:

Traffic Analysis and Billing Optimization Tool

Problem Statement:

For a leading CSP, managing network traffic and billing operations came with significant and growing operational challenges.

Without precise traffic data, issues like incorrect billing or the inability to bill certain services arose, especially when faulty circuits went undetected. The ability to observe and track traffic loads (download, upload, drop-in, drop-out) at specific time intervals was not feasible, causing inefficiencies in service management and data tracking. Managing over 250,000 circuits manually was prone to errors and time-consuming, especially when ensuring billing accuracy and network reliability.

Solution Overview:

The Traffic Analysis and Reporting Tool introduced real-time monitoring and data-driven insights into network operations.

- **Traffic Visualization & Anomaly Detection:** Visualized traffic for each circuit using graphical reports highlighting anomalies and traffic load by time period. Faulty circuits are automatically flagged and reported, ensuring timely notifications.
- **High-Quality Data Collection:** Traffic data collected at 5-minute resolution intervals with a 95% reporting rule to filter outliers and ensure reliable reports.
- **Large-Scale Circuit Management:** Automated monitoring and reporting across **250,000+ circuits,** capturing all traffic anomalies and faults for accurate, timely invoicing.
- **Traffic-Based Billing:** Enables billing based on actual usage, ensuring customers are charged correctly without errors.

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 tool delivered a more accurate, automated, and scalable traffic management and billing environment.

- **Reduced Revenue Leakage:** Operators could charge based on actual traffic patterns, reducing revenue leakage.
- **Faster Troubleshooting:** Automatic fault reporting minimized service disruption.
- **Near Real-Time Responsiveness: 5-minute intervals improved** responsiveness to network performance changes.
- **Fewer Billing Complaints:** More accurate billing reduced customer complaints related to discrepancies.
- **Improved Service Quality:** Better traffic load tracking led to improved overall service quality and customer satisfaction.