

Engineering Excellence in Network Infrastructure



Summary

A leading global communication technology company required a robust network planning and engineering solution to enhance efficiency, optimize infrastructure, and ensure seamless service delivery. This initiative focused on designing, implementing, and automating network planning processes to support large-scale deployments, reduce operational overhead, and improve overall network performance.





Scope

- Oversee end-to-end network creation, planning, and procurement.
- Develop a comprehensive Fiber Optic plan to capture A-to-Z locations for enhanced connectivity.
- Generate customized KPI reports for network device performance and optimization.
- Ensure seamless integration testing and automation for network infrastructure.

Challenges



- Managing large-scale fiber optics network planning and execution.
- Ensuring real-time visibility into network device performance metrics.
- Reducing manual intervention in network quality assurance and testing.
- Enabling seamless integration of automation frameworks across various network services.



Solution



- Capacity planning to enable engineers to execute network implementation efficiently.
- Developed scalable automation frameworks for customized KPI reporting.
- Implemented Zero-Code MATE Tool Development & Script Migration for REST API testing.
- Enabled Selenium Grid-based test execution on cloud platforms, optimizing validation workflows.
- Automated defect tracking and reporting in Jira.
- Enhanced integration testing using web services components across network equipment.



Business Value

- Significant effort and cost reduction through DevOps, CI/CD automation, and quality assurance improvements.
- Proactive defect prediction platform, enabling real-time issue resolution before impacting operations.
- Automated executive tracking reports, providing visibility for SMEs, Managers, Directors, and Executive Directors on site work progress.
- Enhanced operational efficiency with seamless integration of automation tools, improving timeto-market for network services.
- Optimized network resource utilization, driving increased reliability and performance.





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