

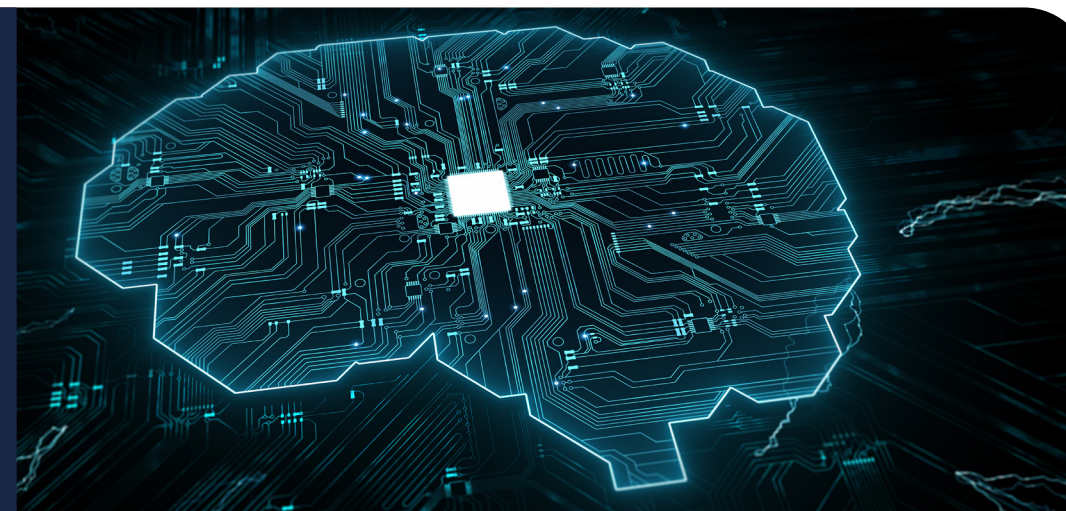
NeuroNOC: The self-healing network brain

Data drives new insights and with AIML / genAI, NW operations become highly automated, cognitive, proactive and efficient.



The solution:

This Catalyst is harnessing AI to combine and analyze network operations data from many different sources to enable CSPs to automate the swift and accurate resolution of faults and issues. As well as substantially lowering costs, the proposed solution will also significantly improve customer experience.



Addressing the challenge:

The solution involves the sophisticated curation of CSP-specific domain data and the fine-tuning of Large Language Models into highly capable Small Language Models.

With this generative AI and agentic framework, the solution can:

- discover the network topology
- analyze the issues
- visualize the customer impacts
- identify the root cause quickly
- plan the resolution steps and
- execute the remediation with remarkable precision and efficiency.



Dr. Aziza Najeeb Khamis Al Zadjali

Strategist - tools and digital transformation in technical operations



By integrating AI-powered chatbots, AI Agents, and closed-loop automation, Omantel can accelerate troubleshooting and incident resolution, minimize manual intervention, and reduce human error, all while leveraging scalable AWS cloud Data and AI components and our partner solutions from Accenture, Netscout, Symphonica and Sand Technologies, to ensure the solution can adapt to future growth and evolving customer needs.

Strategically, this project aligns with Omantel's broader digital transformation goals, positioning the company as an industry leader and innovator, supporting economic growth in Oman, and contributing to social and environmental well-being by optimizing resource use and reducing energy consumption in line with sustainability objectives.



Business impact:

Expected up to **80% decrease** in manual troubleshooting efforts, and about **50% reduction** in operational costs for Telcos.

Champions:



Participants:

